



Charting the Evolution of Sin Tax Research: A Comprehensive Bibliometric Review

Dedi Haryadi

Faculty of Economics and Business, University of Widya Dharma Pontianak, Pontianak, Indonesia

ORCID : <https://orcid.org/0000-0002-4854-9954>

ABSTRACT: Sin taxes—selectif excise levies on goods like alcohol, tobacco and sugar-sweetened beverages—are used to internalize negative externalities and self-control problems. This bibliometric review analyzes 55 Scopus-indexed publications from 1997–2024 identified through a systematic search for “sin tax” and “sin taxes” up to 26 December 2025 and filtered for scholarly, English-language economics and finance works. Publication output grew from sporadic early contributions to a surge starting in 2013 and peaking at eleven papers in 2022. Authorship is dispersed (138 unique authors, only four with multiple papers), and output is geographically concentrated, with the United States producing nearly half of publications and Finland, Italy and the United Kingdom contributing smaller shares. Keyword clustering highlights themes around optimal tax design, consumption behaviour, obesity, pass-through and paternalism, reflecting intersections between public finance, behavioural economics and health policy. The field is expanding but remains geographically skewed, signalling the need for more research in developing countries, greater interdisciplinary collaboration and deeper exploration of new sin goods and long-term health and fiscal effects.

KEYWORDS: sin tax, bibliometric analysis, corrective taxation, health policy.

INTRODUCTION

Selective excise taxes on products regarded as socially harmful—so-called sin taxes—have become a ubiquitous instrument of public finance and public health. Economic theory treats these levies as a subset of Pigovian taxes designed to internalize negative externalities and internalities associated with the consumption of alcohol, tobacco, gambling, or sugar-sweetened beverages. Because consumption of these goods imposes health-care costs on non-consumers and may also reflect self-control problems or misperceptions about harm, a tax that raises the private cost is thought to reduce overconsumption and improve welfare (Haavio & Kotakorpi, 2011; O’Donoghue & Rabin, 2006). Early theoretical work framed the problem as one of “optimal paternalism,” showing that when individuals have hyperbolic discounting or other behavioral biases, corrective taxation can increase their lifetime utility (O’Donoghue & Rabin, 2003). The incidence of such taxes is, however, contested. Kotakorpi (2008) demonstrates that the burden can fall disproportionately on consumers when demand is inelastic and supply pass-through is high, while Allcott et al. (2019) emphasize that cigarettes and sugary drinks are consumed more intensively by lower-income households, giving rise to concerns about regressivity.

Debate over how to design sin taxes intersects with political economy and behavioral economics. Haavio and Kotakorpi (2011) argue that policymakers’ incentives affect tax rates and earmarking: revenue raised from sin goods often finances unrelated public programs, which can dilute corrective incentives. The normative literature has therefore explored alternatives to uniform excise taxes. Sin licences, for example, grant consumers permits to purchase harmful goods up to a quota, with prices set to reflect social costs (Haavio & Kotakorpi, 2016). Recent models incorporate dynamic preferences and heterogeneity. Li and Dorfman (2019) show that variations in habit formation across consumers affect welfare-maximizing soda tax rates, and Wang et al. (2020) highlight that optimal sin taxes depend on interactions with labour income taxation and public healthcare financing. Delmotte and Dold (2022) criticize sin taxes from a behavioral liberty perspective, suggesting that paternalistic interventions may overcorrect when preferences evolve endogenously. Regulatory approaches are also expanding: Calcott (2022) proposes taxes on harmful ingredients rather than finished goods, arguing that ingredient-specific levies may better target externalities and encourage product reformulation.

Empirical evaluations reveal a heterogeneous impact of sin taxes on prices and behavior. Black and Mohamed (2006) provide early evidence from South Africa that tobacco taxes can burden poor households if retailers fully pass the tax on to consumers. Subsequent



work in the United States finds that soda taxes are partially passed through to final prices and may induce cross-border shopping or substitution toward untaxed alternatives. Seiler et al. (2021) show that pass-through of soda taxes varies by retailer and that consumers engage in tax avoidance, weakening the nutritional impact. Relatedly, Zhang et al. (2021) document avoidance behaviors in response to sugar-sweetened beverage taxes, while Gehrsitz et al. (2021) observe that differential alcohol tax changes influence consumption patterns. Evaluations of candy and restaurant menu taxes similarly demonstrate moderate but significant reductions in purchases (Hoy & Wrenn, 2020). Cross-sectional and difference-in-differences analyses frequently find that consumption declines are larger among adolescents and low-income consumers, although the extent of health improvements and long-term welfare gains remains contested (Allcott et al., 2019). These mixed results have prompted calls for more granular studies and better measurement of pass-through, substitution, and distributional impacts.

Despite the growing theoretical and empirical literature, there has been limited synthesis of publication patterns, influential contributors, and thematic clusters in sin tax research. A preliminary search of the Scopus database identified 55 articles and conference papers on sin taxes published between 1997 and 2024 across journals such as *Economics Letters*, *Journal of Public Economics* and *Food Policy*. The corpus covers diverse topics—ranging from optimal taxation theory, political economy, and behavioral paternalism to empirical assessments of soda, tobacco, alcohol, and gambling taxes—and has expanded rapidly since 2014. However, no bibliometric study has systematically mapped this field. Understanding how research productivity, collaboration networks, and citation influence have evolved can illuminate the development of the sin tax literature and identify gaps for future inquiry. Therefore, this study conducts a bibliometric analysis of sin tax publications using quantity, performance, and structural indicators to chart scholarly trends and provide a roadmap for researchers and policymakers.

LITERATURE REVIEW

The scholarly discourse on sin taxes has evolved from early Pigovian models toward richer frameworks that recognise behavioural imperfections, heterogeneity in preferences and complex policy trade-offs. Foundational work cast sin taxes as corrective instruments intended to align private and social costs when consumers impose negative externalities or internalities through consumption of alcohol, tobacco, gambling and sugar-sweetened beverages. O'Donoghue and Rabin (2003) model consumption under hyperbolic discounting and show that paternalistic taxes can raise individual welfare by countering time-inconsistent choices, while a subsequent paper formalised the idea of “optimal sin taxes” and underscored the importance of balancing externalities, internalities and distributional considerations

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. Kotakorpi (2008) examined tax incidence and found that when demand is relatively inelastic, consumers bear most of the burden, cautioning that corrective levies may have regressive impacts. Haavio and Kotakorpi (2011) incorporated political-economy considerations, noting that governments may earmark revenues for unrelated programs and set tax rates based on fiscal needs rather than welfare maximisation. Building on this, Haavio and Kotakorpi (2016) proposed sin licences, permitting consumers to purchase a fixed quantity of a harmful good at a price reflecting marginal damage; the scheme decouples revenue generation from corrective intent and can theoretically achieve first-best outcomes.

Theoretical research has diversified to reflect heterogeneity in preferences and behavioural anomalies. Li and Dorfman (2019) evaluate soda taxes under heterogeneous habit formation, showing that optimal rates depend on how strongly consumers adjust future consumption in response to price signals. Wang et al. (2020) analyse the interaction between sin taxes, labour income taxation and public healthcare financing; they find that when governments must also fund healthcare, corrective levies may need to be higher to offset fiscal externalities. Delmotte and Dold (2022) challenge paternalistic taxation from a behavioural liberty perspective: they argue that when preferences evolve endogenously, sin taxes may overcorrect by constraining individuals' capacity to experiment with consumption paths. Antonelli et al. (2022) synthesise the theoretical literature and highlight unresolved issues around modelling internalities, dynamic preferences and multi-good interactions. Prieger (2023) extends the optimal taxation framework to e-cigarettes, emphasising that reduced-harm products complicate tax design because cross-elasticities and health risks differ across nicotine delivery modes. These normative debates underscore that no single tax rate fits all contexts and that policy design must account for behavioural, technological and fiscal environments.



Distributional and incidence effects constitute a prominent stream of empirical research. Allcott, Lockwood and Taubinsky (2019) demonstrate that sin taxes are regressive on a mechanical basis because low-income households spend a larger share of their budget on taxed goods, yet they also show that welfare gains can still be progressive if low-income consumers experience larger health benefits and internality corrections. Black and Mohamed (2006) provide early evidence from South Africa that tobacco taxes disproportionately burden poor households. Conlon, Rao and Wang (2024) expand on incidence analysis by tracing who ultimately pays sin taxes; using U.S. microdata, they show that overlapping supply chains and market power mean that both producers and consumers share the burden, with incidence varying by product and demographic. Jones-Smith et al. (2022) analyse distributional effects of sweetened beverage taxes and report that while low-income households experience larger price increases, they also reduce consumption more, leading to net health benefits. Dadayan (2019) critiques state reliance on sin tax revenues, arguing that declining consumption and market substitution undermine the revenue base and create a “sin tax fallacy.” Kim (2022) employs a dynamic common correlated effects model to examine how sin taxes affect U.S. state fiscal surpluses; the study finds that corrective levies contribute modestly to long-term fiscal balance but their effectiveness depends on broader economic conditions. Hovhannisyann, Heboyan and Kondaridze (2024) use smoothed instrumental variables to assess U.S. tobacco control policies and report significant reductions in smoking prevalence following tax hikes, although effects are heterogeneous across income and race. Such findings reveal the need to integrate incidence, distributional and behavioural responses when evaluating policy effectiveness.

Another sizeable body of literature investigates how sin taxes affect prices, consumption and market dynamics. Seiler, Tuchman and Yao (2021) analyse several U.S. soda tax implementations and find that pass-through to retail prices is incomplete and varies across store types; consumers respond by shopping across borders or switching to untaxed substitutes, attenuating nutritional benefits. Bollinger and Sexton (2023) study Berkeley’s soda tax and show that retail prices exhibit “stickiness” due to menu costs and strategic pricing, and that spillovers occur as neighbouring jurisdictions adjust prices. Behavioural salience also matters: Rees-Jones and Rozema (2023) show that when tax changes are highly salient, consumer responses exceed those predicted by standard models, while less visible changes elicit muted reactions. Zhang et al. (2021) document avoidance behaviours, such as purchasing untaxed beverages in adjacent markets or buying concentrates, thereby eroding revenue and health gains. Conlon et al. (2024) further emphasise that supply chains can absorb part of the tax, affecting producers’ margins. For unhealthy foods, Kalamov and Runkel (2022) find that taxes reduce consumption primarily at the intensive margin among existing consumers rather than deterring new entrants, implying that obesity reductions may be modest. Empirical studies across products thus reveal that market structure, tax salience and consumer mobility play critical roles in shaping pass-through and effectiveness.

Research in behavioural economics emphasises self-control problems and psychological determinants of consumption. Bryan, Karlan and Nelson (2010) show that “commitment devices,” including savings plans and deposit contracts, can help individuals stick to long-term goals, suggesting that taxes function as external commitment devices by making unhealthy consumption more costly. Schmacker and Smed (2023) use a model of hyperbolic discounting and experimental data to illustrate that sin taxes can enhance welfare when individuals exhibit self-control problems but can reduce welfare for fully rational consumers. Abrardi and Cambini (2019) consider policies that directly incentivise self-control effort, such as subsidies for gym memberships, and argue that combined approaches may outperform pure taxation. Burlacu et al. (2022) examine how financial stress affects demand for temptation goods and find that under financial worries, consumers may paradoxically increase demand for taxed goods, implying that sin taxes could exacerbate stress consumption. Kalamov and Runkel (2022) distinguish between intensive and extensive margins of obesity, showing that taxes on unhealthy foods may not deter initial adoption but can moderate portion sizes. These studies underscore the importance of tailoring policies to behavioural contexts and complementing taxes with information or commitment devices.

The literature also points to unintended consequences and critiques of sin taxes. Bate, Kallen and Mathur (2020) document that high cigarette taxes have spurred a rise in illicit “white” cigarettes—brandless products smuggled across borders—undermining both revenue and public health goals. Kenchington et al. (2022) explore how tax hikes may spur cheating in interpersonal exchanges; in laboratory experiments, participants facing higher taxes were more likely to underreport private transactions, suggesting that sin taxes can erode social norms of honesty. Burlacu et al. (2022) note that financial stress can increase consumption of taxed goods, and Delmotte and Dold (2022) argue that paternalistic policies can infringe on freedom of choice and may be difficult to justify when preferences are endogenous. Bate et al. (2020) and Dadayan (2019) warn that dependence on sin taxes may encourage illicit



trade and reduce fiscal stability. Cohen et al. (2017) characterise some beverage taxes as “toothless,” noting that consumers can avoid them by substituting to other caloric products. These critiques highlight the necessity of considering enforcement, cross-border cooperation and complementary policies.

Finally, studies of political economy and public acceptance shed light on the conditions under which sin taxes are adopted and sustained. Barnes, Gramlich and Lee (2023) analyse campaign finance disclosure in the context of Washington State’s soda tax ballot initiative and find that when voters learn that opposing campaigns are funded by beverage companies, support for the tax increases. Haavio and Kotakorpi (2011) argue that lobbying, earmarking and revenue salience influence tax design more than welfare considerations. Kim (2022) links sin tax adoption to fiscal pressures: states with budget deficits are more likely to enact or raise sin taxes. Conlon et al. (2024) underscore that overlapping burdens across producers, retailers and consumers complicate the distributional narrative presented to voters. Research is also beginning to explore new domains: Prieger (2023) discusses how to tax e-cigarettes and other reduced-harm products; Thayyib et al. (2024) examine how brand expertise, impulsiveness and materialism shape young adults’ responses to sin taxes; and Antonelli et al. (2022) synthesise frameworks for taxing sin goods under technological change. Collectively, the literature suggests that sin taxes are neither a panacea nor a failure; their effectiveness depends on careful design, enforcement, complementary policies and public support. Despite the expanding scholarship, however, there has been little systematic synthesis of publication patterns, leading to fragmented knowledge about influential contributors, dominant journals and evolving research themes. The bibliometric analysis presented in this study seeks to fill this gap by mapping the intellectual structure and temporal trends of sin tax research.

METHODS

To conduct this study, a bibliometric approach was employed. Bibliometrics is a quantitative method that evaluates bibliographic data to map the intellectual structure of a field and identify research trends, influential contributors and key themes. It involves techniques such as counting publications and citations, ranking authors and journals, and analysing networks of co-authors and co-occurrence of keywords. The purpose of applying bibliometrics here was to systematically characterise the sin tax literature and provide an evidence-based overview of its evolution.

The dataset was obtained from the Scopus database because of its comprehensive coverage of peer-reviewed journals and conference proceedings in economics and finance. A search was conducted using the keywords “sin tax” and “sin taxes” in titles, abstracts and keywords, restricted to publications indexed up to 26 December 2025. This search yielded 177 records, which were exported in CSV format for analysis. The selection process followed several filters, summarised in Figure 1: non-scholarly documents such as book chapters and editorials were removed, leaving 130 journal articles and conference papers; then non-English records were excluded, resulting in 127 items; finally, only documents classified in Scopus as Economics, Econometrics & Finance or Business, Management & Accounting were retained, producing a final dataset of 55 publications. These records span the period 1997–2024 and cover themes ranging from optimal tax design and incidence to behavioural responses and policy evaluation.

After compilation, the data were pre-processed by removing duplicates, standardising author names and journal titles, and harmonising keywords. Descriptive analyses were conducted to examine publication and citation trends and to identify prolific authors, institutions and journals. For relational analysis, VOSviewer software was used to create co-author and keyword co-occurrence maps, enabling exploration of collaboration networks and thematic clusters within the sin tax literature.

In this study, a bibliometric analysis was conducted on the research literature surrounding tax amnesty, utilizing a comprehensive dataset obtained from the Scopus database. The methodology followed a structured, multi-step screening process to ensure the inclusion of only relevant and high-quality studies. The stages of the screening process are outlined as follows:

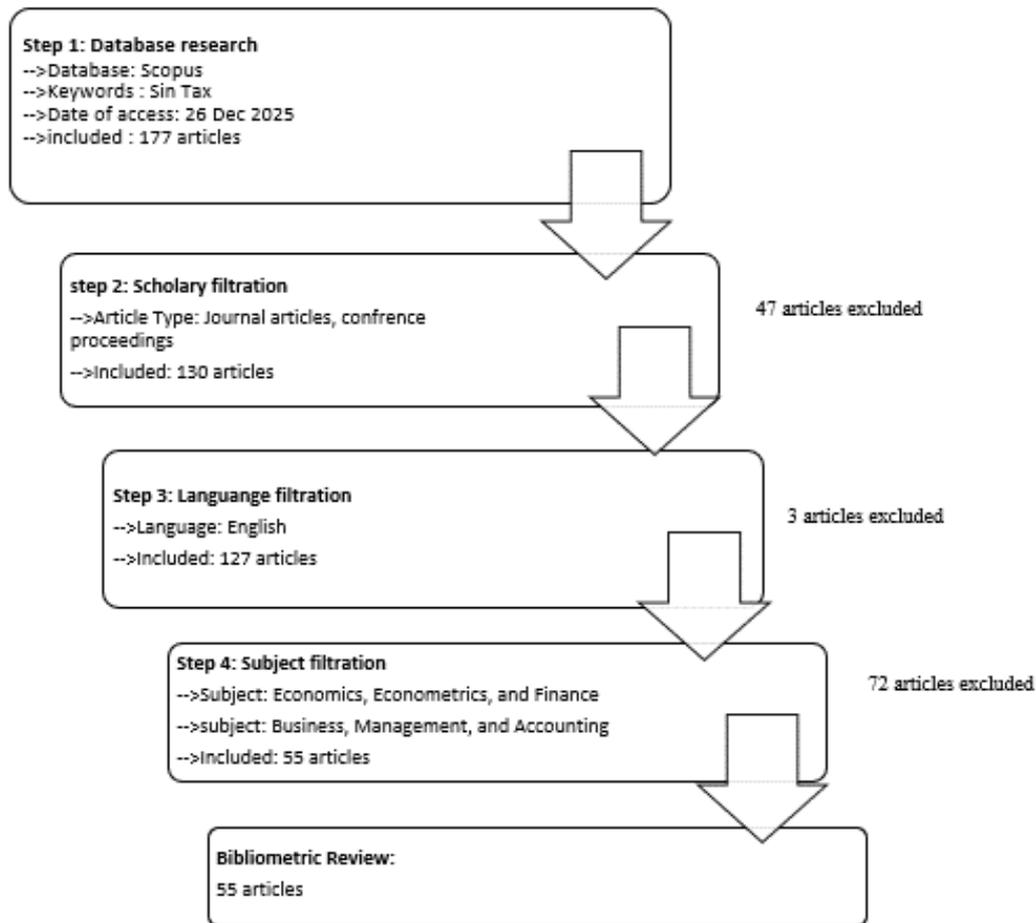


Figure 1: Search and Filtration strategy for bibliometric review

RESULT

Paper count per Year

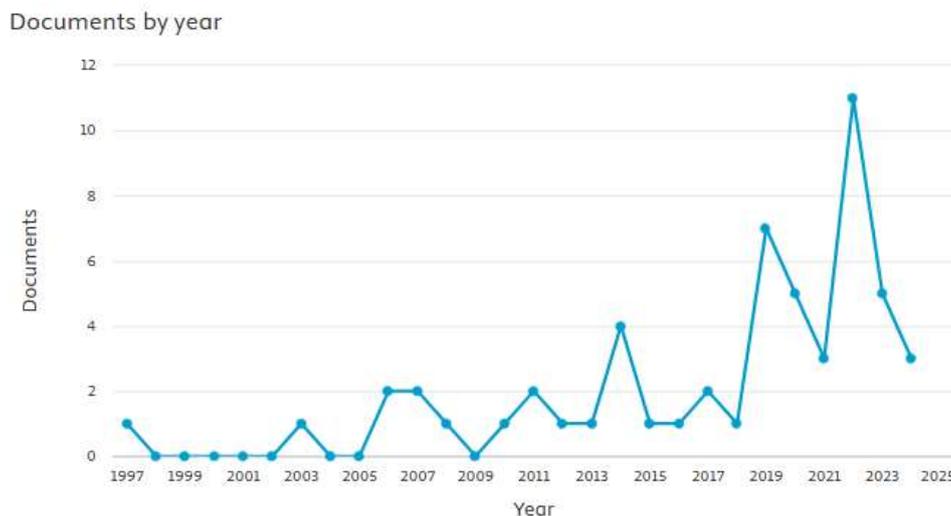


Figure 2: Articles published per year



The annual distribution of sin tax publications demonstrates a clear evolution from sporadic contributions to sustained academic engagement. Early research, appearing as isolated papers in 1997 and the early 2000s, reflected a niche scholarly interest primarily focused on traditional Pigouvian taxation and its ability to correct negative externalities. This period yielded only one or two papers every few years, illustrating that sin taxes were not yet a significant topic in mainstream economic debates.

A notable uptick occurred around 2013 and 2014 when scholars began examining newly implemented sugar-sweetened beverage taxes and the broader implications of paternalistic policy interventions. Four papers in 2013 and two in 2014 marked a shift toward more empirical investigations into the behavioural responses to excise taxes. Although still modest, this growth indicated an expanding research agenda that moved beyond theoretical models to consider real-world policy experiments and their outcomes.

The most pronounced increase in publication volume began in 2019, aligning with a global surge in health-motivated taxation initiatives and heightened public discourse about obesity, self-control, and the regressivity of excise taxes. Seven papers were published in 2019, followed by five in 2020 and three in 2021. This period saw scholars apply behavioural economics to sin tax design, assessing both welfare implications and revenue earmarking for public health. The peak year for sin tax research was 2022, with eleven publications examining optimal tax rates, distributional effects, and cross-country policy evaluations. The slight decline to five papers in 2023 and three in 2024 likely reflects a natural tapering after the rapid expansion, as well as indexing lags for the most recent work.

Overall, the temporal trend underscores how policy developments and theoretical innovations can catalyse scholarly activity. As sin taxes became widely adopted and the economic frameworks for addressing externalities and internalities matured, the academic community responded with a surge of research culminating in 2022. Subsequent years appear quieter but may signal a shift towards more nuanced, sector-specific analyses rather than a decline in interest.

Most Productive author

Documents by author

Compare the document counts for up to 15 authors.

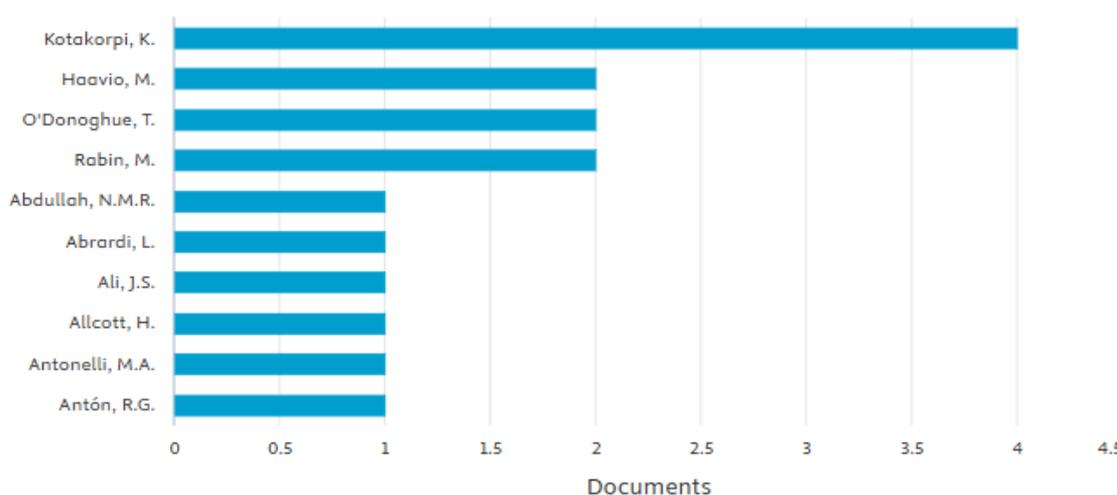


Figure 3: Most Productive authors

The bibliometric analysis of sin tax literature reveals a strikingly dispersed authorship pattern. Across 55 documents, 138 unique authors were identified, yet only four individuals have contributed more than one paper. The most prolific researcher is Kotakorpi, K., who has authored four of the publications, indicating a sustained focus on sin taxes and a likely engagement with debates on optimal corrective taxation and paternalistic policy design. His repeated presence suggests an influential role in shaping the theoretical framework and empirical discussions within this domain.

Haavio, M., O'Donoghue, T. and Rabin, M. are the only other scholars with multiple contributions, each authoring two papers. O'Donoghue and Rabin are prominent figures in behavioural economics; their work on present-biased preferences and self-control



problems has been instrumental in justifying sin taxes as tools to address internalities as well as externalities. Haavio's recurrent contributions imply a dedicated interest in the welfare implications and distributive effects of excise taxes, often informed by public-finance perspectives. The presence of these authors underscores the interdisciplinarity of the field, drawing from behavioural economics, public policy and health economics.

Beyond these leading contributors, the sin tax corpus is characterised by a long tail of authorship. The remaining 134 authors appear only once in the dataset, reflecting a diverse array of researchers who engage with sin tax topics from various angles—ranging from empirical evaluations of beverage taxes to normative analyses of tax incidence and equity. This pattern indicates that, while a small core of scholars provides continuity and theoretical depth, the broader literature benefits from a wide range of perspectives and methodologies.

Document by Country

Documents by country or territory

Compare the document counts for up to 15 countries/territories.

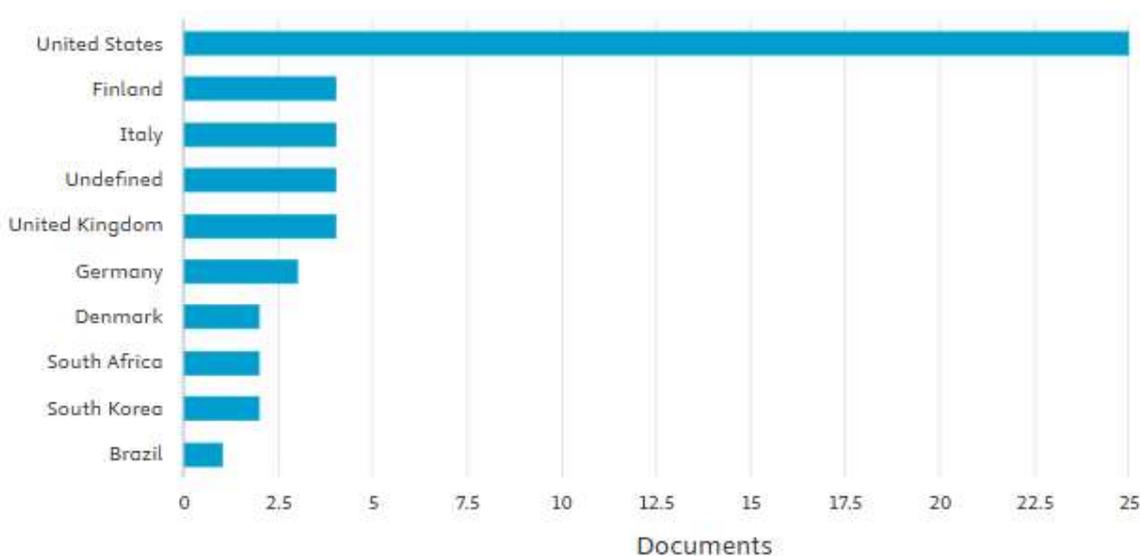


Figure 4: Document by country

The geographical distribution of the sin tax literature is heavily skewed toward a few countries, highlighting how research output aligns with broader patterns of academic capacity and policy interest. Among the 55 Scopus-indexed papers, the United States dominates the field with 25 publications—nearly half of the total. This prominence underscores the country's strong academic infrastructure and its sustained engagement with public health taxation policies, ranging from soda taxes to tobacco and e-cigarette excise taxes.

Outside the United States, the contributions are far more modest. Finland, Italy and the United Kingdom each account for four papers, indicating the presence of small but active research groups in these countries. Germany follows with three publications. Denmark, South Africa and South Korea each produce two papers, demonstrating that interest in sin taxes spans multiple continents, albeit at a lower intensity. Two papers are attributed to Brazil, and another four records could not be assigned to a specific country, suggesting incomplete or ambiguous affiliation data in the source database.

Overall, this pattern reveals that sin tax scholarship is concentrated in a handful of developed economies, with the United States serving as the principal hub. European countries contribute a secondary tier of output, while emerging economies make occasional contributions. The modest representation from lower-income countries highlights a potential research gap, particularly as many of these jurisdictions are experimenting with excise taxes to fund public health initiatives.



Most Cited Papers

Table 1: Most Cited Papers

No	Title	Authors	Year	Citations
1	Commitment devices	Bryan, G., Karlan, D., Nelson, S.	2010	325
2	Optimal sin taxes	O'Donoghue, T., Rabin, M.	2006	276
3	Studying optimal paternalism, illustrated by a model of sin taxes	O'Donoghue, T., Rabin, M.	2003	227
4	Regressive Sin Taxes, with an Application to the Optimal Soda Tax	Allcott, H., Lockwood, B.B., Taubinsky, D.	2019	170
5	The Impact of Soda Taxes: Pass-Through, Tax Avoidance, and Nutritional Effects	Seiler, S., Tuchman, A., Yao, S.	2021	94
6	What is really behavioral in behavioral health policy? And does it work?	Golizzi, M.M.	2014	55
7	Obesity and nutrient consumption: A rational addiction?	Richards, T.J., Patterson, P.M., Tegene, A.	2007	42
8	Surcharges plus unhealthy labels reduce demand for unhealthy menu items	Shah, A.M., Bettman, J.R., Ubel, P.A., Keller, P.A., Edell, J.A.	2014	37
9	The welfare effects of health-based food tax policy	Härkänen, T., Kotakorpi, K., Pietinen, P., Reinivuo, H., Suoniemi, I.	2014	28
11	The political economy of sin taxes	Haavio, M., Kotakorpi, K.	2011	28
12	Sweetened beverages taxes: Economic benefits and costs according to household income	Jones-Smith, J.C., Knox, M.A., Coe, N.B., Haurvitz, P.M., Krieger, J.	2022	22
13	Dynamic preferences and the behavioral case against sin taxes	Delmotte, C., Dold, M.	2022	17
14	The effect of changes in alcohol tax differentials on alcohol consumption	Gehrsitz, M., Saffer, H., Grossman, M.	2021	17
15	Who wants paternalism?	Pedersen, S.K., Koch, A.K., Nafziger, J.	2014	17

The bibliometric analysis highlights a cluster of seminal contributions that have shaped subsequent research on sin taxes and related public-policy interventions. The most cited paper in the corpus is “Commitment Devices” by Bryan, Karlan and Nelson (2010), with 325 citations. Although not strictly a sin-tax study, this article is influential because it examines self-control problems and the role of pre-commitment mechanisms, themes that underpin arguments for paternalistic taxation. The second and third most cited works are theoretical papers by O’Donoghue and Rabin—“Optimal Sin Taxes” (2006) with 276 citations and “Studying Optimal Paternalism, Illustrated by a Model of Sin Taxes” (2003) with 227 citations. These articles formalise models of corrective taxation that internalise both externalities and behavioural biases, providing a conceptual foundation for much of the later empirical literature. Among the empirical papers, Allcott, Lockwood and Taubinsky’s “Regressive Sin Taxes, with an Application to the Optimal Soda Tax” (2019) stands out with 170 citations. This study quantifies the welfare and distributional implications of soda taxes, demonstrating how corrective levies can be designed to balance health benefits against regressive financial burdens. Seiler, Tuchman and Yao’s “The Impact of Soda Taxes: Pass-Through, Tax Avoidance, and Nutritional Effects” (2021), with 94 citations, extends the empirical evidence by measuring price pass-through and consumption responses, while Galizzi’s (2014) article “What Is Really Behavioral in Behavioral Health Policy? And Does It Work?” is the most highly cited behavioural-policy critique, amassing 55 citations. These works collectively demonstrate how rigorous empirical analysis has complemented and tested the theoretical predictions about sin tax effectiveness.

The remainder of the highly cited papers reflects a diverse array of topics and disciplinary perspectives. Richards, Patterson and Tegene's 2007 study on obesity and rational addiction has accrued 42 citations and links health outcomes to consumption models. Shah and colleagues' experimental work from 2014 shows that combining surcharges with unhealthy labels reduces demand for unhealthy menu items and has been cited 37 times. Traill's (2012) economic perspective on nutrition policy evaluation, the welfare-based food tax analysis by Härkäriinen and co-authors (2014), and Haavio and Kotakorpi's (2011) exploration of the political economy of sin taxes each have 28 citations, indicating substantial interest in normative and policy frameworks. More recent contributions, such as Jones-Smith and co-authors' (2022) examination of the equity effects of sweetened beverage taxes, Delmotte and Dold's (2022) critique of sin taxes from a dynamic-preference perspective, and empirical studies on alcohol taxation by Gehrsitz, Saffer and Grossman (2021) and on public support for paternalism by Pedersen, Koch and Nafziger (2014), round out the top fifteen with citation counts in the high teens. Collectively, these papers illustrate how the sin-tax literature spans foundational theory, behavioural economics, policy evaluation and public opinion, and their citation profiles underscore their influence on subsequent research agendas.

Document by Subject Area

Documents by subject area

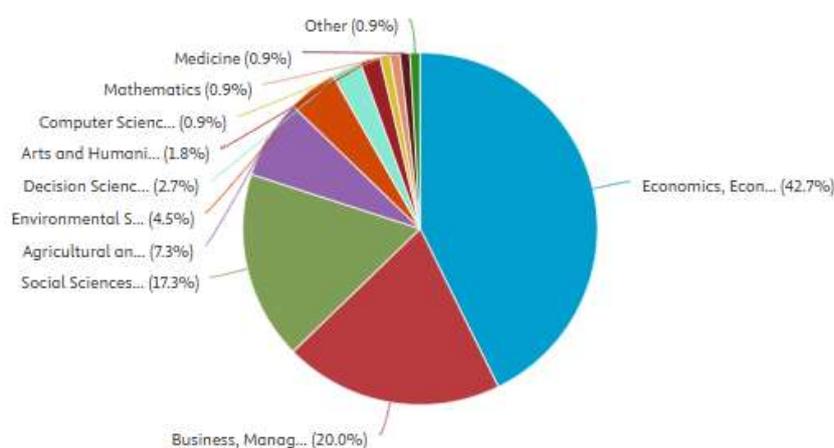


Figure 5: Document by subject Area

The subject area analysis underscores the overwhelmingly economic nature of sin tax research while revealing meaningful contributions from adjacent disciplines. Nearly half of the subject classifications fall under economics, econometrics and finance, reflecting the fact that sin taxes are principally studied as fiscal instruments designed to correct market failures and generate revenue. These studies delve into optimal tax design, elasticity estimates, incidence and redistribution, and behavioural responses. The second-largest cluster, business, management and accounting, accounts for roughly one-fifth of subject area assignments. Papers in this category often examine sin taxes' impact on corporate strategy, pricing and marketing, as well as the accounting and compliance aspects of excise levies.

Beyond the economic core, the literature demonstrates a significant degree of interdisciplinarity. Social sciences constitute about seventeen per cent of subject area classifications, capturing research from public policy, sociology and political science that explores the normative justification of sin taxes, public support and political economy dynamics. Agricultural and biological sciences, which represent about seven per cent, focus on the nexus between food taxation, nutrition and agricultural markets, particularly in relation to sugar-sweetened beverages and dietary health. Environmental science contributes approximately five per cent of classifications, indicating interest in taxes on carbon, fuel or other pollutants that share conceptual similarities with traditional sin taxes. Smaller yet notable contributions come from decision sciences, arts and humanities, computer science, mathematics and medicine. These areas address topics ranging from consumer decision-making and ethical considerations to computational modelling and health



outcomes. Collectively, the distribution of subject areas reflects the multifaceted nature of sin tax research, with economics at its core but enriched by diverse perspectives that consider legal, behavioural, environmental and health implications.

Keyword Analysis

Table 2: Keywords Count

No	Keywords	Co-occurrence
1	tax system	8
2	consumption behavior	5
3	united states	5
4	obesity	6
5	beverage	3
6	food policy	3
7	food consumption	2
8	sugar	2
9	colorado	2
10	taxes	3
11	difference-in-differences	2
12	internalities	2
13	pass-through	3
14	paternalism	4
15	tax avoidance	2

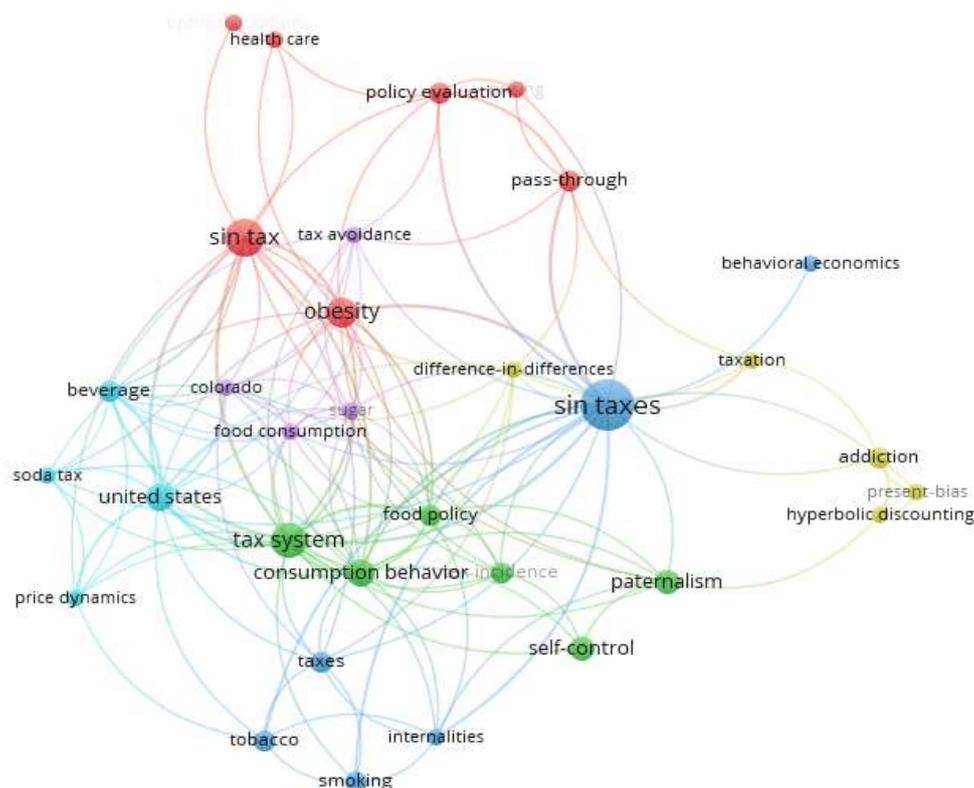


Figure 6: Keywords Analysis with Vos Viewer



The keyword analysis illustrates the thematic contours of the sin tax literature. In the combined index and author keywords, “tax system” emerges as the most frequently occurring term, appearing eight times. This prominence reflects the central focus on the design and implementation of excise and corrective taxes within broader fiscal regimes. Close behind are “consumption behavior” and “United States,” each with five occurrences. Their prevalence suggests that many scholars concentrate on how consumers adjust their purchasing decisions in response to price changes and that a significant portion of empirical work draws on U.S. case studies, where soda taxes and tobacco levies have been widely implemented. “Obesity” also features prominently, with six occurrences, underscoring the public health motivation behind many sin taxes, particularly those targeting sugar-sweetened beverages.

Other frequently encountered terms reveal both the substantive and methodological diversity of the field. Keywords such as “beverage,” “food policy,” “food consumption,” “sugar” and “Colorado” signal a strong focus on dietary taxes and regional policy experiments. Meanwhile, “difference-in-differences,” “pass-through,” “tax avoidance,” “internalities” and “paternalism” point to the analytical tools and theoretical debates that underpin sin tax research. The presence of behavioural concepts such as “internalities” and “paternalism” reflects an ongoing conversation about self-control problems and the normative justification for state intervention. References to “pass-through” and “tax avoidance” highlight interest in price transmission and compliance, while “difference-in-differences” indicates that quasi-experimental designs are commonly used to estimate causal effects.

Network analysis using VOSviewer clusters these keywords into coherent themes, providing further insight into how the literature is organised. One cluster links “sin tax,” “obesity,” “policy evaluation,” “pass-through,” “optimal taxation” and “health care,” emphasising research that evaluates health outcomes and explores welfare-maximising tax rates. Another cluster groups together “tax system,” “consumption behavior,” “price dynamics,” “beverage,” “soda tax,” “food consumption” and geographic tags such as “United States” and “Colorado,” reflecting empirical studies of soda taxes and their impact on demand. A third cluster connects “sin taxes,” “behavioral economics,” “internalities,” “smoking,” “taxes” and “tobacco,” signalling the foundational role of behavioural theory and the historical focus on tobacco excise taxes. Additional clusters revolve around keywords such as “present bias,” “hyperbolic discounting,” “addiction” and “paternalism,” highlighting the behavioural underpinnings of sin tax models. Collectively, these patterns show that sin tax research spans theoretical modelling, empirical case studies and policy evaluation, with strong cross-links between economic theory, behavioural insights and real-world health outcomes.

DISCUSSION

The discussion section of this bibliometric study synthesises the key patterns observed in the sin tax literature and explores their implications for future research and policy. Overall, the analysis reveals a field that has grown rapidly over the past decade, culminating in a surge of publications around 2019–2022. This increase coincides with heightened public debate and policy experimentation around taxes on sugar-sweetened beverages, alcohol and tobacco, as well as the broader application of behavioural economics to public policy. The decline in publications after 2022 may reflect a temporary lag in indexing rather than waning interest, suggesting that the literature may continue to expand as more data become available.

The geographic distribution of research is heavily concentrated in the United States, which accounts for nearly half of all publications. This dominance reflects the country’s prolific academic output and its active experimentation with soda taxes and other public-health levies. European countries such as Finland, Italy, the United Kingdom and Germany contribute a secondary tier of research output, while occasional studies emerge from South Africa, South Korea and Brazil. The presence of a substantial “undefined” category highlights the limitations of bibliographic records and underscores the need for more precise metadata. The limited representation of developing countries is notable, given that sin taxes are often proposed as tools for public-health financing and revenue generation in low-income contexts. Future research would benefit from a more global lens, incorporating case studies and comparative analyses from a wider range of jurisdictions.

Authorship patterns further underscore the concentration of expertise. Only four authors—Kotakorpi, O’Donoghue, Rabin and Haavio—contribute more than one article to the dataset, with Kotakorpi being the most prolific. Their work spans theoretical models of optimal taxation and paternalism, empirical evaluations of tax incidence and behavioural responses, and normative debates about fairness and regressivity. The remaining 134 authors each contribute a single paper, illustrating the field’s broad reach across diverse scholarly communities. This long-tail distribution suggests that sin tax research draws on scholars whose primary focus may lie in adjacent fields such as public health, marketing, psychology or law.



The subject-area analysis reveals that sin taxes are predominantly studied within the realm of economics, econometrics and finance, which together account for about forty-three per cent of subject classifications. Business, management and accounting form the second-largest cluster, followed by social sciences, agricultural and biological sciences and environmental science. This mix reflects the multidimensional nature of sin taxes, which intersect with health outcomes, consumer behaviour, public policy, corporate strategy and environmental externalities. Smaller contributions from decision sciences, arts and humanities, computer science, mathematics and medicine highlight the occasional engagement of these disciplines with issues such as ethical justification, modelling and health impacts.

The most cited papers illuminate the conceptual and empirical foundations of the field. The leading article, “Commitment devices,” explores mechanisms to help individuals overcome self-control problems and has become a cornerstone for understanding paternalistic interventions. The theoretical works “Optimal sin taxes” and “Studying optimal paternalism” provide formal frameworks for balancing externalities, internalities and equity concerns, and they continue to influence normative debates. Empirical studies such as “Regressive Sin Taxes” quantify the distributional effects of soda taxes, while “The Impact of Soda Taxes” measures price pass-through and behavioural responses. Together, these highly cited papers demonstrate how theoretical insights and empirical evidence have coevolved, shaping public understanding and informing policy design.

Keyword analysis offers additional insights into the thematic structure of the literature. The frequency of terms like “tax system,” “consumption behavior,” “United States” and “obesity” reveals a strong focus on institutional design, behavioural responses and health outcomes within a predominantly U.S. context. Other recurring keywords: “beverage,” “food policy,” “difference-in-differences,” “pass-through,” “paternalism,” “internalities” and “tax avoidance”, signal the field’s emphasis on nutrition policy, causal evaluation methods, behavioural economics and compliance issues. The network visualisation groups these terms into clusters that correspond to distinct research streams: one cluster integrates public-health goals with optimal tax design and policy evaluation; another concentrates on consumption patterns, price dynamics and regional case studies; a third anchors the behavioural economics foundation of sin taxes by linking smoking and tobacco taxation to self-control and internalities; and additional clusters highlight methodological concepts such as present bias, hyperbolic discounting and addiction.

Taken together, these findings suggest several avenues for future research. First, there is a need to broaden the geographic scope of sin tax studies, particularly in developing countries where public-health burdens and fiscal constraints are acute. Comparative analyses could uncover how cultural, political and economic contexts mediate the effectiveness and equity of sin taxes. Second, the concentration of authorship points to the value of interdisciplinary collaboration; bringing together economists, health scientists, psychologists and legal scholars could enrich the field’s methodological and theoretical toolkit. Third, the prominence of behavioural economics underscores the importance of integrating insights from psychology and neuroscience to refine models of consumer behaviour and inform policy design. Finally, emerging policy issues—such as taxes on cannabis, electronic cigarettes, plastics or other pollutants—offer fertile ground for extending the conceptual frameworks developed in the sin tax literature. Future studies should also explore the long-term health and fiscal outcomes of existing taxes, assess the role of revenue earmarking and public acceptability, and examine how sin taxes interact with other health interventions and social policies.

In conclusion, this bibliometric analysis shows that sin tax research is a vibrant and evolving field. It is grounded in economic theory but enriched by contributions from multiple disciplines, anchored by a handful of influential scholars yet open to diverse perspectives. As policymakers continue to grapple with public-health challenges and fiscal pressures, the insights generated by this literature will remain pivotal for designing effective and equitable tax policies.

CONCLUSION

In conclusion, this bibliometric review provides a systematic overview of scholarly work on sin taxes, offering insights into the evolution, scope and thematic focus of the field. The analysis of 55 Scopus-indexed articles shows that academic interest in sin taxes has intensified markedly in recent years, with publication output peaking around 2022 after a lengthy period of sporadic contributions. This trajectory mirrors the growing prominence of sin taxes in public policy debates, especially as governments seek fiscal instruments that can simultaneously curb harmful consumption and generate revenue for health initiatives. The literature is anchored in economics and behavioural science, but contributions from business, public policy, social science and health-related disciplines highlight its interdisciplinary nature.



Key findings reveal that research is geographically concentrated, with the United States dominating publication output and a handful of European countries providing secondary contributions. Authorship patterns are similarly skewed: only a small group of scholars repeatedly engage with sin tax research, while the majority of authors contribute a single paper. Highly cited works centre on theoretical frameworks for optimal sin taxes and paternalistic interventions, as well as empirical evaluations of soda and tobacco taxes that consider incidence, behavioural responses and equity. Keyword clustering points to three broad thematic areas: health and nutritional economics, behavioural and paternalistic justifications for taxation, and methodological approaches to policy evaluation. These clusters underline the dual emphasis on conceptual development and practical assessment.

Despite its breadth, the literature exhibits several gaps. Studies from developing regions are scarce, limiting our understanding of how sin taxes function in diverse economic and cultural contexts. There is also room for more longitudinal analyses that trace the long-term health and fiscal impacts of these taxes, as well as interdisciplinary collaborations that blend economic modelling with insights from psychology, epidemiology and law. Future research could explore emerging sin goods such as vaping products, cannabis or plastics, assess the interaction between sin taxes and complementary policies like subsidies or information campaigns, and investigate the political economy of tax adoption and repeal. Expanding the scope of bibliometric data to include additional databases and non-English publications would provide a more comprehensive picture of global scholarship on sin taxes.

Overall, this review demonstrates that sin tax research is a dynamic and evolving field, rich with theoretical debates and empirical findings. By charting publication trends, identifying influential works and mapping thematic clusters, the study not only clarifies the current state of knowledge but also highlights pathways for future exploration. As policymakers continue to grapple with the complex interplay between public health objectives and fiscal constraints, robust and diversified scholarship will remain essential to designing effective, equitable and socially acceptable sin tax policies.

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