


Research Article

Trends in Interdisciplinary Economics: Which Fields are Most Integrated with Economics?

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Abstract

Despite increasing interest in interdisciplinary research over recent decades, there remains a noticeable gap in the interdisciplinary literature in the field of economics. This study aims to examine trends in interdisciplinary research within economics and identify which disciplines are most integrated with this field of study. The study examines 9,255 articles from 20 economics journals ranked highly in the IDEAS/RePEc Aggregate Rankings between 2014 and 2023. The study indicated that the trend in interdisciplinary Economics has increased over time, confirming that Economics is not an inward-looking field. The study also highlights that most interdisciplinary research concentrates on the social sciences, particularly sociology and political science, demonstrating a solid intersection between economic, political, and social frameworks. Interestingly, the study reveals that articles related to knowledge, innovation, and the environment have shown an increasing trend over the last decade. This trend can be attributed to the growing prominence of knowledge-based and environmental problems, which have gained considerable attention in response to globalization and rising global concerns about climate change. Furthermore, the results indicate an increasing interest in economic research related to health, institutions, and law over time.


Keywords: Interdisciplinarity; Economics; Social sciences; Insularity

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مقالة بحثية

اتجاهات البحث البيني في الاقتصاد: ما أكثر المجالات تكاملاً مع علم الاقتصاد؟

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ملخص

مع الاهتمام المتزايد بالبحث البيني على مدى العقود الأخيرة، ما زالت هناك فجوة ملحوظة في الأدبيات المتعلقة بالبحث البيني في علم الاقتصاد. تهدف هذه الدراسة إلى استكشاف اتجاهات البحث البيني في الاقتصاد، وتحديد التخصصات الأكثر تكاملاً معه. فحصت الدراسة 9255 مقالاً من 20 مجلة اقتصادية مصنفة في أعلى تصنيفات RePEc/IDEAS (Aggregate) خلال الفترة من 2014 إلى 2023. أظهرت النتائج أن البحوث البينية في الاقتصاد تشهد تزايداً مستمراً، مما يؤكد أن علم الاقتصاد ليس مجالاً مغلقاً؛ بل هو منفتح على جميع العلوم الأخرى. كما أظهرت الدراسة أن معظم البحوث البينية تركز على العلوم الاجتماعية، وخاصة علم الاجتماع والعلوم السياسية، مما يعكس وجود تقاطعات قوية بين الأطر الاقتصادية والسياسية والاجتماعية. ومن المثير للاهتمام أن المقالات المتعلقة بالمعرفة والابتكار والبيئة كشفت عن ارتفاع ملحوظ خلال العقد الماضي، مما يشير إلى تزايد الاهتمام بالمشكلات المتعلقة بالمعرفة والتكنولوجيا والبيئية، في ظل العولمة والمخاوف العالمية المتصاعدة بشأن تغير المناخ. إضافة إلى ذلك، تشير النتائج إلى ازدياد الاهتمام بالبحوث الاقتصادية المتعلقة بالصحة والمؤسسات والقانون مع مرور الوقت.

الكلمات المفتاحية: التنمية المستدامة، الأحداث الكبرى، كأس العالم، قطر، الاستشراق

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1. Introduction

For a long time, Economics has been viewed as a distinct discipline within the social sciences, distinguished by its unique methods, principles, and perspectives that differentiate it from other fields such as sociology, psychology, and political science¹ However, the growing complexity of real-world economic challenges since the mid-20th century has necessitated interdisciplinary approaches integrating economics with various fields. This evolution reflects Economics' engagement with contemporary societal issues such as health, environment, and geography, underscoring its role as an interdisciplinary science. Given Economics' fundamental aim of enhancing societal well-being, addressing these real-life issues becomes imperative through economic tools and theory. Moreover, the emergence of diverse economic methodologies from other fields (including statistics, econophysics, behavioral economics, and neuroeconomics) has spurred debates on the dissolution of traditional disciplinary boundaries in Economics. Consequently, interdisciplinary perspectives in Economics have garnered significant attention from researchers in recent decades.

Many recent studies indicated that economics has been increasingly outward-looking in recent decades, thereby challenging the perception of it as an insular discipline.² For instance, some scholars suggest that the level of interdisciplinary collaboration in economics has significantly changed over time, with some influential journals actively engaged in this transformation.³ While others argue that economics scholarship has increasingly reached beyond its traditional boundaries, engaging more actively with other disciplines and contributing to broader scientific discourse beyond its field.⁴ Furthermore, the historical insularity of the Economics discipline identified a significant shift starting in the 1990s, which rapidly opened the discipline to influences from many other disciplines, such as management and environmental sciences, and to a lesser

1 David Phillips & Hausman M. Daniel, "The Inexact and Separate Science of Economics," *The Philosophical Review*, Vol. 103, No. 2 (April 1994), p. 348. <https://doi.org/10.2307/2185742>; Roger E. Backhouse & Philippe Fontaine, "Introduction: History of Economics as History of Social Science," *History of Political Economy*, Vol. 42, No. Suppl_1 (2010), pp. 1–21. <https://doi.org/10.1215/00182702-2009-070>; Alexandre Truc & others, "The Interdisciplinarity of Economics," *Cambridge Journal of Economics*, Vol. 47, No. 6 (September 1, 2023), pp. 1057–1086. <https://doi.org/10.1093/cje/bead021>

2 Josh Angrist, Pierre Azoulay, Glenn Ellison, Ryan Hill, and Susan Feng Lu. "Inside Job or Deep Impact? Extramural Citations and the Influence of Economic Scholarship," *Journal of Economic Literature*, Vol. 58, No. 1 (March 1, 2020), pp 3–52; Ibid. DOI: 10.1257/jel.20181508

3 Marion Fourcade, Etienne Ollion and Yann Algan, "The Superiority of Economists," *Journal of Economic Perspectives*, Vol. 29, No. 1 (February 1, 2015), pp. 89–114. DOI: 10.1257/jep.29.1.89

4 Ibid.

extent, various social sciences and humanities. However, despite increasing research on the interdisciplinary aspects of economics, existing studies primarily concentrate on its integration with established social sciences fields such as sociology, psychology, and political science while overlooking its potential interactions with other emerging fields. Given the contemporary global trends such as globalization and frequent economic crises, there is a growing need to understand better how economics intersects with a broader spectrum of disciplines.⁵

Building on the above background, this study aims to comprehensively analyze interdisciplinary trends in economics, explicitly exploring interactions that extend beyond neighbouring social science disciplines. It also seeks to identify which fields have most prominently integrated with economics in recent decades and assess the implications of these connections for the future of economic science. Additionally, the paper broadens the scope of interdisciplinary engagement by incorporating a more comprehensive array of disciplines beyond the conventional social sciences. Furthermore, this study provides valuable insights into the evolving interdisciplinary landscape of economics and anticipates emerging research trends.

This study has significant contributions to the interdisciplinary literature, particularly in economics. First, it represents a pioneering effort to examine the trend in interdisciplinary research within economics over the past decade. Second, it identifies which disciplines have most prominently engaged with economics. Third, unlike previous studies focusing on neighbouring social sciences such as political science, psychology, and anthropology, our research expands this scope to include a broader array of disciplines. Fourth, unlike previous studies that rely on citation counts from other disciplines⁶ This study reviews a substantial sample of economic articles, providing valuable insights into the evolving interdisciplinary landscape of economics. Finally, the study's relevance is underscored by the increasingly complex global environment and the expansion of economic challenges beyond traditional economic theory and analysis tools.

The remainder of this paper is structured as follows: Section two defines interdisciplinary and reviews empirical studies on the interdisciplinarity in Economics. Section three outlines the study's data sources and research methods, while section four presents the findings. Finally, section five concludes with remarks and implications drawn from the study and identifies the study's limitations and avenues for future research.

5 Ibid.

6 Sophie Mitra, Michael Palmer, and Vu Vuong. "Development and Interdisciplinarity: A Citation Analysis", *World Development*, No. 135 (November 2020): 105076. <https://doi.org/10.1016/j.worlddev.2020.105076>; Victor Cruz-e-Silva, and Marco Antônio Ribas Cavalieri, "Patterns of Interdisciplinary Citations and Asymmetry between Economics and the Neighboring Social Sciences from 1959 to 2018", *Nova Economia*, Vol. 32, No. 1 (April 2022), pp. 261–91. <https://doi.org/10.1590/0103-6351/6591>; Ibid.

2. Literature Review

Interdisciplinarity refers to the integration or collaboration between different academic disciplines or fields of study to address complex problems or questions that cannot be adequately answered by one discipline alone⁷ Interdisciplinary research responds to and solves the complexity and urgency of modern scientific and societal tasks. Different forms of interdisciplinary research share common traits, such as methodologies and application areas⁸

The study of interdisciplinary approaches in economics is essential within the field of social and human sciences⁹ In recent decades, the increasing integration between economics and other disciplines, especially social sciences, has brought attention to the issue of interdisciplinarity in economic literature¹⁰ The economic literature indicates that interdisciplinary economics emerged in the late Twentieth century, starting with the work of economists like Gary Becker and his theory of time allocation¹¹ However, until the early 1990s, interdisciplinary research was “a scarce commodity.”¹² Over time, economics has become a less isolated discipline and has integrated with most social and basic sciences, and economists still maintain active engagement with other disciplines¹³

Truc et al. (2023) argued that economic discipline has historically been insular, as evidenced by studying citation patterns in thousands of journals since the 1950s¹⁴ However, the research also highlights a significant shift after the 1990s, leading to greater openness in economics, with increased influence from management, ecological sciences, and, to a lesser extent, other social sciences and humanities. Although this change has made economics less insular, it remains

7 Angelique Chettiparamb, “Interdisciplinarity: a literature review” (Southampton: University of Southampton, 2007), The Interdisciplinary Teaching and Learning Group, Subject Centre for Languages, Linguistics and Area Studies, School of Humanities, University of Southampton; Joe Moran, “Interdisciplinarity” (London: Routledge, 2010).

8 Wolfgang Glänzel & Koenraad Debackere, “Various Aspects of Interdisciplinarity in Research and How to Quantify and Measure Those”, *Scientometrics*, Vol. 127, No. 9 (September 15, 2021), pp. 5551–5569. DOI: 10.1007/s11192-021-04133-4

9 Ibid.

10 Ibid.

11 Gary S. Becker. “A Theory of the Allocation of Time”, *The Economic Journal*, Vol. 75, No. 299 (1965), pp. 493–517. <https://doi.org/10.2307/2228949>

12 Jacques J. Siegers. “Interdisciplinary Economics”, *De Economist*, Vol. 140, No. 4 (December 1992), pp. 531-547.

13 Ibid.

14 Citation analysis can identify interdisciplinary research by evaluating the range of sources cited within an article. Papers that draw on references from multiple disciplines or include influential works across various fields typically indicate interdisciplinary integration. Examining citation patterns and the thematic diversity of references helps reveal how a study connects different academic domains. This method has been employed in several previous studies (e.g., Mitra et al., 2020; Cruz-e-Silva and Cavalieri, 2022; Truc et al., 2023).

the least outward-looking field within the social sciences and humanities, especially compared to management. Furthermore, unlike other prominent social sciences, the leading economics journals have not made substantial contributions to the recent expansion of interdisciplinary research. While economics is transforming, it is premature to declare that it has fully embraced interdisciplinarity.

Scholars have studied the patterns of interdisciplinary citations and the asymmetry between economics and neighboring social sciences from 1959 to 2018. Their findings reveal several vital points. First, the disciplines can be grouped into three categories: political science and sociology, which show a high level of growing interdisciplinarity. At the same time, economics and psychology display a lower level of increasing interdisciplinarity. On the other hand, anthropology is the only discipline that shows decreased interdisciplinarity. Second, between the 1960s and the 2010s, economics climbed from fifth to third place in terms of interdisciplinary citations compared to other social sciences, surpassing psychology and anthropology. Thirdly, economics emerged as the central social science from the 1980s onwards, accounting for nearly half of the interdisciplinary citations within the social sciences network. Finally, the coefficient of interdisciplinary asymmetry indicates that, within the social sciences network, economics has a more substantial presence in its neighboring disciplines¹⁵

Other researchers analyzed citation patterns in the development field, specifically within Economics. They examined leading journals in development economics and development studies and citations from other social science disciplines like economics, geography, political science, and sociology using data from the Web of Science. The findings indicate minimal interdisciplinary interaction in the field of development. Most crossdisciplinary citations were found between development economics, development studies, and economics. However, there has been an increase in citations between development economics and development studies since the mid-2000s. The researchers looked into potential factors contributing to this trend. They concluded that the most likely reason is the increasing number of economists publishing in development studies journals, driven by heightened competition in development economics journals. Although there seems to be a growing level of communication between different development fields, the rate of cross-citations remains low, accounting for only two to three percent of total citations, and is primarily driven by selected journals¹⁶

15 Ibid.

16 Sophie Mitra, Michael Palmer, and Vu Vuong, "Development and Interdisciplinarity: A Citation Analysis", *World Development*, Vol. 135 (November 2020): 105076. <https://doi.org/10.1016/j.worlddev.2020.105076>

Interdisciplinary research in economics goes beyond the mere combination of different disciplinary traditions. The social sciences have converged, blending fields such as psychology, sociology, anthropology, and political science with general and agricultural economics. Behavioral economics is one significant advancement in this field, which has brought economics closer to other social sciences by moving away from the assumption that individuals always make perfectly rational decisions based on expected utility. Instead, behavioral economics considers broader objectives and constraints that influence decision-making¹⁷ In this sense, the level of interdisciplinary collaboration between economics and psychology in the field of behavioral economics is higher than that of the average economics articles. This finding highlights the distinct interdisciplinary nature of this specialization¹⁸

A wide range of literature has confirmed the interdisciplinarity of economics with other fields of the social and natural sciences, revealing emerging phenomena on a global scale. This global impact is crucial, as it connects each study to specific dimensions and disregards others. For instance, scholars examined the interdisciplinary relationship between economics, natural resources, and the environment. They indicated that Environmental Economics has developed as a specialized area within economics, focusing on ecological goods and allocating scarce resources. Economists place a high priority on economic sustainability in response to evident climate change, biodiversity loss, water crises, and other ecological changes. As a result, environmental economics has evolved into a more integrated sustainability science emphasizing resources, resource productivity, and their role in the circular economy. This emphasis on global impact makes the audience feel connected and aware of the broader implications of their research¹⁹

On the other hand, ecological economists often have differing opinions regarding their field and its connection to conventional economics. These disagreements arise because the field aims to achieve various objectives under the terms “interdisciplinarity” and “transdisciplinarity.” These labels can encompass at least four goals: generating innovative ideas by brainstorming and borrowing from different disciplines, creating new sub-disciplines that bridge existing areas of study, establishing methodological and theoretical consistency across multiple fields, and applying scientific knowledge to address social issues²⁰ Therefore, the world needs to integrate

17 David Wuepper and Others, “Behavioral Agricultural Economics”, *Applied Economic Perspectives and Policy*, Vol. 45, No. 4 (January 30, 2023), pp. 2094–2105. <https://doi.org/10.1002/aep.13343>

18 Ibid.

19 George Halkos, and Shunsuke Managi, “New Developments in the Disciplines of Environmental and Resource Economics”, *Economic Analysis and Policy*, No. 77 (March 1, 2023): pp. 513–522. <https://doi.org/10.1016/j.eap.2022.12.008>

20 Benjamin Dube, “Why Cross and Mix Disciplines and Methodologies?: Multiple Meanings of Interdisciplinarity and

ecological knowledge into economics more effectively to tackle the damaging effects of human activity, which has resulted in an unsustainable “overshoot,” where we have exceeded the ecosphere’s capacity to regenerate ecosystems²¹ This stress on the need for integration makes the audience feel the urgency and importance of their work in addressing natural and social phenomena and their effects and providing solutions to environmental problems²²

In recent years, economics has merged with modern fields like neuroeconomics, combining neuroscience, psychology, and behavioral economics. It aims to study the neurobiology of decision-making and understand its influence on human behavior and societal interactions²³ Neuroeconomics has successfully integrated neuroscientific findings into economic theory and introduced new theoretical approaches to understanding the decision-making process and its impact on economic behavior²⁴

On the other hand, there are clear patterns of interdisciplinary knowledge flow in the relationships between disciplines. Regarding Business, Economics, and Planning, their connections with Psychology, Behavioral Sciences, and Applied Mathematics differ in breadth and intensity. Psychology and Behavioral Sciences appear to have a more profound impact on the focal discipline, while Applied Mathematics has a broader influence on its research. Although Applied Mathematics is crucial and widely used in economics research, it lacks many references. On the other hand, Psychology and Behavioral Sciences are closely related to specific branches of Business, Economics, and Planning (such as marketing) and provide valuable knowledge in these areas²⁵

Scholars in the field of research policy widely agree that the social sciences and humanities (SSH), including economics, play a limited role in interdisciplinary research compared to other disciplines, and there are several explanations for this phenomenon. For instance, disciplines

Pluralism in Ecological Economics”, *Ecological Economics*, No. 179 (January 2021): 10682. <https://doi.org/10.1016/j.ecolecon.2020.106827>

21 William Rees, “Ecological Economics for Humanity’s Plague Phase”, *Ecological Economics*, No. 169 (March 2020): 106519. <https://doi.org/10.1016/j.ecolecon.2019.106519>

22 Sharon Beder. “Environmental Economics and Ecological Economics: The Contribution of Interdisciplinarity to Understanding, Influence and Effectiveness”, *Environmental Conservation*, Vol. 38, No. 2 (May 9, 2011), pp. 140–150. 10.1017/S037689291100021X

23 Paul W Glimcher and others, “Introduction: A brief history of neuroeconomics, *In Neuroeconomics*, (January 1, 2009), pp. 1–12.

24 Daniel Serra, “Decision-Making: From Neuroscience to Neuroeconomics—an Overview,” *Theory and Decision*, Vol. 91 (June 28, 2021), pp. 1–80. DOI: 10.1007/s11238-021-09830-3

25 Hongyu Zhou, Raf Guns and Tim Engels, “Towards Indicating Interdisciplinarity: Characterizing Interdisciplinary Knowledge Flow”, *Journal of the Association for Information Science and Technology*, Vol. 74, No. 11 (January 1, 2022), pp. 1325-1340. <https://doi.org/10.48550/arXiv.2207.10722>

in the social sciences and humanities (SSH) can introduce novel research inquiries and ensure that interdisciplinary research maintains ethical and social grounding²⁶ One researcher carefully examines the conditions associated with 127 recent funding programs aimed at interdisciplinary and cross-disciplinary research. The findings underscore that the ongoing exclusion of SSH disciplines from interdisciplinary fields remains a significant issue in research funding. Moreover, even when SSH disciplines secure funding, they often encounter challenges aligning their research questions and objectives solely with knowledge advancement. These circumstances frequently steer SSH disciplines toward contributing to multidisciplinary research rather than focusing on genuine interdisciplinarity and knowledge integration²⁷

The discussion above highlights that the issue of interdisciplinarity in economics has garnered increasing interest in recent decades due to the interaction between economic theory and various disciplines. However, much of the existing literature primarily focuses on integrating economics with neighboring social science fields, such as sociology, psychology, and political science, while neglecting potential interactions with other emerging fields. Therefore, this study addresses a significant research gap by analyzing the trend in interdisciplinarity in economics through a survey of 9,255 articles drawn from 20 leading economics journals published in the last decade.

3. Methodology

3.1 The Sample and Data Sources

To examine trends in interdisciplinarity within economics, the study reviews 9,255 articles from 20 economics journals ranked highly in the IDEAS/RePEc Aggregate Rankings, covering the period from 2014 to 2023. The articles are sourced from the IDEAS/RePEc Aggregate Rankings for Journals website.²⁸

IDEAS/RePEc Aggregate Rankings for Journals is a ranking system developed by the Research Papers in Economics (RePEc) project, a collaborative effort to enhance the dissemination of economics research. IDEAS (Internet Data-based Economics Access Service) is part of RePEc and provides a comprehensive database of economics literature in terms of journals and authors. The IDEAS/RePEc Aggregate Rankings for Journals ranks economics journals based on various

26 Anita Välikangas, “The Limited Role of Social Sciences and Humanities in Interdisciplinary Funding: What Are Its Effects?,” *Social Epistemology*, Vol. 38, No. 2 (September 4, 2023), pp. 1–21. <https://doi.org/10.1080/02691728.2023.2245769>

27 Ibid.

28 IDEAS/RePEc, “Aggregate Ranking for Economics Journals,” *IDEAS*, (n.d.), Date of Access: 14 July 2024, <https://ideas.repec.org/top/top.journals.all.html>.

criteria such as citations, downloads, and impact factors derived from the data available in the RePEc database. These rankings are intended to provide researchers, academics, and institutions with insights into the influence and reach of journals in economics. IDEAS/RePEc Aggregate Rankings for Journals are a valuable tool for researchers and institutions to evaluate economics journals' scholarly impact and visibility. These rankings also assist in decision-making regarding publication, research collaborations, and academic evaluations. Furthermore, IDEAS/RePEc Aggregate Rankings for Journals are widely used in Economic literature to evaluate journals and authors²⁹

3.2 The Sample: Inclusion and Exclusion Criteria

The study adopted several inclusion and exclusion criteria. Inclusion criteria involved selecting journals published in the last decade (2014-2023) from top-ranked journals according to IDEAS/RePEc Aggregate Rankings, encompassing both empirical and theoretical research within economics. We also focused on journals regularly published over the past four decades and indexed in the Web of Science database. Journals that predominantly focus on single-discipline economic theories or methodologies, such as the *Journal of Political Economy*, and *Journal of Econometrics*, were excluded due to their interdisciplinary perspectives. This approach ensures a comprehensive overview of how economics research has integrated with and contributed to other disciplines over the past decade, illuminating evolving trends and practices in interdisciplinary scholarship.

3.3 Methods

Various methods were employed to analyze the selected journals regarding interdisciplinary economic trends. These methods included descriptive statistics and comparative analysis, along with a detailed examination of multiple criteria such as titles, abstracts, and references. Additionally, we conducted a qualitative review of the article content. This qualitative analysis systematically categorized and examined the content of the journal articles to identify patterns, themes, and trends related to interdisciplinary approaches in economics. Through this comprehensive approach, we were able to differentiate between pure economics and interdisciplinary articles effectively. Descriptive statistics utilize tables and figures to summarize and present essential characteristics of the reviewed articles, such as the percentage of interdisciplinary versus

29 SK Mishra, "On the Optimality of Academic Rankings of Regions with RePEc Data", *MPRA Paper*. (University Library of Munich, Germany, October 14, 2008); Nguyen, Minh-Hoang, "IDEAS RePEc Rankings of Research Institutions and Economists in Viet Nam (Jan. 2022). DOI: 10.31219/osf.io/j7eqv" *OSF Preprints*. Center for Open Science, February 21, 2022.

purely disciplinary articles and trends in interdisciplinarity over time. Comparative analysis compares trends and patterns across different disciplines or periods, providing insights into how interdisciplinarity has evolved over the past decade.

Based on the definitions of interdisciplinarity provided by scholars,³⁰ we use the above mentioned criteria to identify interdisciplinary articles. In our study, an article is considered interdisciplinary if it integrates concepts or methods from disciplines other than economics. For example, an article that analyzes the economic impact of renewable energy adoption may incorporate environmental science to evaluate the ecological benefits of different renewable energy sources. It would then use economic analysis to assess the financial implications of these environmental benefits, such as cost savings from reduced healthcare expenses related to air pollution. By integrating environmental science with economic analysis, this article exemplifies an interdisciplinary approach.

4. Results

As detailed in the methodology section, this study encompasses an analysis of 9,255 articles sourced from 20 economic journals published between 2014 and 2023. Table 1 presents the distribution of these articles categorized as pure economics or interdisciplinary. The interdisciplinary articles are identified based on the definition provided in section two, as those that integrate academic disciplines to address complex problems or questions that cannot be adequately answered by a single discipline alone. The interdisciplinary articles are classified into eight categories: political economy/political sciences, law/institutions, health, environment/ecology, sociology/social issues, psychology, mathematics/statistics, and technology/innovation. According to the table, out of the total 9,255 articles, 4,103 (44.3%) are interdisciplinary. The most interdisciplinary articles are in political economy and political sciences, with 1,182 articles, followed by sociology and social issues, with 1,040 articles. Conversely, the disciplines of environment and psychology had the fewest articles, with 245 and 178, respectively.

Table 1: The Number of Pure Economics and Interdisciplinary Articles (2014-2023)

Category	Number
Pure Economics	5,152
Interdisciplinary	4,103
Political Economy/Political Sciences	1,182

30 Such as: Chettiparamb; Moran.

Sociology/Social Issues	1,040
Health	471
Law/Institutions	350
Technology/Knowledge	348
Mathematics/Statistics	289
Environment /Ecology	245
Psychology	178
Total	9,255

Source: Authors' compilation based on a review of top Economic Journals (2024)

Regarding the research trends in the journals under study, Figure 1 illustrates the trends in pure and interdisciplinary articles from 2014 to 2023. The figure demonstrates a notable increase in the publication of both types of research within these journals over this period. While there are mild fluctuations in the number of articles in specific years, the overall trend shows a consistent upward trajectory. Specifically, the trend in interdisciplinary papers decreased in the initial years (2015-2016), followed by an increase in 2017, a slight decline in 2018, and a subsequent upward trend in the last years. This pattern likely reflects a growing research interest in interdisciplinary approaches within economics in recent years.

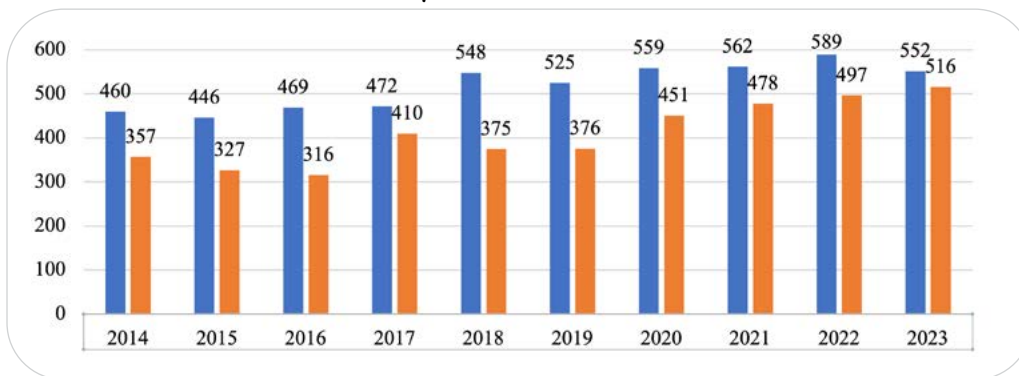


Figure 1: The Trend of Pure and Interdisciplinary Articles (2014-2023)³¹

Regarding the relationship between pure and interdisciplinary articles over time, Figure 2 depicts the evolution of percentages of interdisciplinary articles relative to pure economics articles from 2014 to 2023. The x-axis denotes the years, while the y-axis represents the percentage of interdisciplinary articles concerning total published articles each year. The graph reveals fluctuations in the proportion of interdisciplinary research in the initial years (2016-2018), followed by a notable upward trend post-2018, consistent with the findings in Figure 1.

31 Source: Authors' compilation based on a review of top Economic Journals (2024)

Specifically, there was a significant increase in the percentage of interdisciplinary articles after 2021, reaching a peak of 93% in 2023.

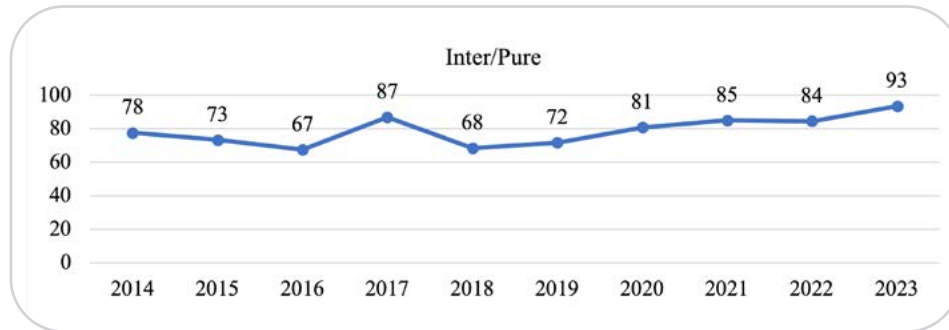


Figure 2: The Percentages of Interdisciplinary to Pure Economics Articles (2014-2023)³²

Regarding categorizing interdisciplinary articles across disciplines other than economics, Figure 3 provides an overview of their distribution across eight primary categories. Political economy emerges as the dominant category, comprising about 29% of interdisciplinary articles, followed by articles related to sociology and social studies, constituting 25% of the reviewed interdisciplinary papers. In the distribution, articles related to law and institutions rank third at 11%, emphasizing their role in interdisciplinary economic analyses. Health-related articles follow at 9%, reflecting ongoing research into the economic implications of healthcare policies and practices. Technology and statistics/mathematics occupy the fifth and sixth positions with 8% and 7%, respectively. Finally, environmental and psychology issues occupy the seventh and eighth positions with 6% and 4%, respectively, highlighting their growing but relatively minor presence in interdisciplinary economic research.

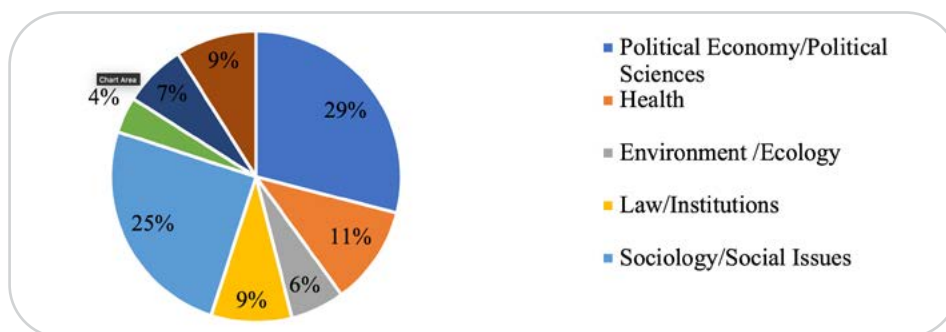


Figure 3: Distribution of Interdisciplinary Articles Across Main Disciplines³³

32 Source: Authors' compilation based on a review of top Economic Journals (2024)

33 Source: Authors' compilation based on a review of top Economic Journals (2024)

Figure 4 illustrates the trend of interdisciplinary articles across main disciplines from 2014 to 2023. The overall trend across all disciplines shows an upward trajectory over the decade, albeit with fluctuations in specific disciplines and years. Political sciences and social studies have shown a significant increase in interdisciplinary publications since 2019, indicating a rising trend in these categories. Conversely, while articles on health issues have generally increased over time, a decline was observed in 2023. Notably, the trend for law/institutions and technology articles has consistently risen, particularly in the last year of the study period.

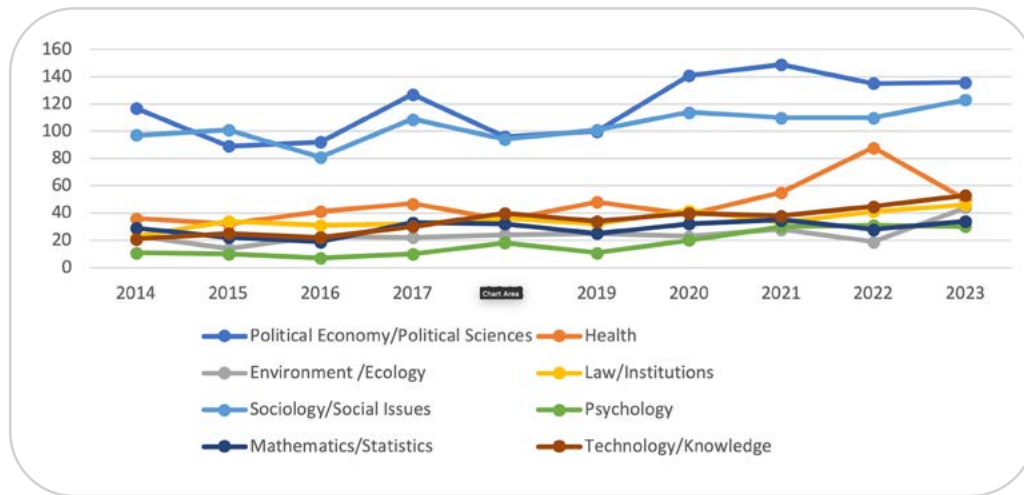


Figure 4: The Trend in Interdisciplinarity of the Main Disciplines³⁴

4. Results Discussion

In this section, we discuss the results presented in the previous section. First, the distribution of articles across pure economics and interdisciplinary categories outlined in Table 1 offers insights into the evolving landscape of economic research over the past decade. With 9,255 articles analyzed from prominent economic journals, it is evident that interdisciplinary issues have gained prominence in the last ten years, constituting 44.3% of the total articles reviewed. This trend highlights an increasing interest among economics researchers in incorporating diverse disciplinary perspectives to tackle complex economic phenomena. Indeed, economic crises in recent decades underscore the necessity of examining economic issues through multiple lenses. The results show that political economy and sciences are the most prevalent interdisciplinary themes, comprising 1,182 articles. This reflects a robust intersection of economic theory with

34 Source: Authors' compilation based on a review of top Economic Journals (2024).

political frameworks, highlighting the relevance of understanding economic behavior within broader socio-political contexts.

Similarly, sociology and social issues feature prominently with 1,040 articles, indicating a significant exploration of economic implications on societal dynamics and welfare. Conversely, disciplines such as environment/ecology and psychology contribute fewer articles, with 245 and 178, respectively. This disparity may suggest varying levels of integration and collaboration between economics and these fields despite their potential to enrich economic analysis through environmental sustainability perspectives and behavioral insights.

Second, the analysis of research trends across the selected journals from 2014 to 2023 reveals a notable evolution in the publication landscape, as depicted in Figure 1. Both pure economics and interdisciplinary research have experienced significant growth over the past decade, indicating a robust expansion of scholarly output within these journals. Despite minor fluctuations in article numbers in specific years, the overall trend demonstrates a steady increase. Of particular interest is the trajectory of interdisciplinary papers, which initially saw a decline in the early years (2015-2016), followed by a resurgence in 2017, a slight dip in 2018, and subsequent upward momentum. This fluctuation suggests dynamic shifts in research priorities and methodologies, possibly influenced by evolving academic interests and societal challenges.

The increasing trend in interdisciplinary research reflects a broader recognition of the value of integrating diverse disciplinary perspectives to address complex economic issues. This trend is crucial in fostering comprehensive analyses considering socio-political, environmental, and psychological dimensions alongside economic theories. The peaks and troughs observed in interdisciplinary publications may indicate periods of experimentation with interdisciplinary approaches and adjustments in research focus over time. This trend enriches the scholarly discourse within economics and contributes to broader academic dialogues across disciplines.

Additionally, understanding the dynamics behind fluctuations in interdisciplinary research output could provide valuable insights into the evolving nature of academic inquiry and interdisciplinary scholarship in economics. Overall, the upward trend in interdisciplinary studies published in these top economic journals contradicts the perception that Economics is an inward-looking discipline held by some researchers in other fields. This finding supports the previous study³⁵ which indicates that economics has increasingly collaborated with other fields, such as political science, psychology, and sociology since the mid-1980s. Therefore,

35 Ibid.

interdisciplinary research in Economics is not as scarce as previously claimed by researchers like Siegers (1992).

Third, Figure 2 further explains the relationship between pure and interdisciplinary articles by depicting the percentages of interdisciplinary articles relative to pure economics articles over time. Initially, the data shows fluctuations in the proportion of interdisciplinary research, particularly noticeable from 2016 to 2018. However, post-2018, there is a clear upward trend in the percentage of interdisciplinary articles, aligning with broader trends observed in Figure 1. The noticeable increase in interdisciplinary research, reaching a peak of 93% in 2023, signifies a robust integration of multidisciplinary approaches in economic scholarship. This trend likely reflects a strategic shift towards addressing complex economic issues through combined insights from political economy, sociology, health, environmental studies, and other disciplines. Such interdisciplinary collaborations are essential for advancing economic theory and informing policy-making in an increasingly interconnected global landscape. Moreover, the varying percentages of interdisciplinary articles across different years suggest evolving research priorities and methodologies within economics. The fluctuations observed in specific years may indicate fluctuations in research interest regarding interdisciplinary issues, contingent upon the changing global landscape and prevailing times.

Regarding the distribution of interdisciplinary articles across various disciplines, Figure 3 highlights several noteworthy trends and patterns. Political economy is the predominant category, encompassing approximately 29% of all interdisciplinary articles reviewed. This finding underscores the significant intersection between political sciences and economics, reflecting a robust academic interest in understanding economic policies. This also indicates the increasing influence of political factors in global affairs in recent decades, driven by geopolitical competition and shifts in international relations.³⁶ These factors have underscored the need for more profound interdisciplinary research integrating political science and economics insights to understand better and navigate complex global challenges. Following closely behind, sociology and social studies contribute substantially to interdisciplinary economic research, comprising 25% of the reviewed articles. This substantial presence underlines the recognition of social dynamics and societal factors in shaping economic outcomes and behaviors, indicating a growing emphasis on interdisciplinary approaches to address complex socio-economic issues. Articles focused on

36 Toby Carroll & Darryl Jarvis, "The New Politics of Development: Citizens, Civil Society, and the Evolution of Neoliberal Development Policy", *Globalizations*, Vol. 12, No. 3 (April 2, 2015), pp. 281–304. DOI: 10.1080/14747731.2015.1016301; Markowitz, Jonathan, and Christopher Fariss, "Power, Proximity, and Democracy: Geopolitical Competition in the International System", *Journal of Peace Research*, Vol. 55, No. 1 (2017), pp. 78-93. <https://doi.org/10.1177/0022343317727328>;

law and institutions constitute 11% of the interdisciplinary articles, underscoring their critical role in examining the legal frameworks and institutional arrangements that influence economic activities and outcomes.

Similarly, health-related articles contribute 9%, reflecting ongoing research efforts into the economic impacts of healthcare policies, public health interventions, and healthcare delivery systems. This also confirms the increasing trend of health economics in the 1960s.³⁷ Technology and statistics/mathematics occupy significant positions at 8% and 7%, respectively, highlighting their essential role in advancing methodological approaches within interdisciplinary economic studies. These disciplines contribute to enhancing analytical tools and frameworks, facilitating more rigorous and data-driven interdisciplinary research. In contrast, environmental issues and psychology occupy smaller but growing niches within interdisciplinary economic research, representing 6% and 4% of the articles. These disciplines are increasingly recognized for their contributions to understanding environmental sustainability challenges and psychological factors influencing economic decision-making. Interestingly, environmental issues have gained momentum since the beginning of the current century, driven by global concerns about climate change, global warming, and the United Nations' focus on sustainable development and the transition to clean energy.³⁸

Notably, the distribution of interdisciplinary articles across these diverse categories underscores the interdisciplinary nature of contemporary economic research. This broad spectrum of inquiry extends beyond traditional economic theories, integrating perspectives from political science, sociology, law, health sciences, technology, statistics, environmental studies, and psychology. This diverse array of disciplines enriches economic scholarship by offering multiple lenses through which to analyze complex economic phenomena. By embracing such interdisciplinary approaches, researchers gain a more nuanced understanding of the complicated interactions that shape economic systems and behaviors in our increasingly interconnected world.³⁹ This holistic approach enhances theoretical frameworks and fosters practical insights that can inform policy-making and address global challenges more effectively.

37 Adam Wagstaff & Anthony Culyer, "Four Decades of Health Economics through a Bibliometric Lens", *Journal of Health Economics*, Vol. 31, No. 2 (March 2012), pp. 406–39. DOI: 10.1016/j.jhealeco.2012.03.002; Mark Perlman, "The Economics of Health and Medical Care," *Google Books*. Springer, 2016.

38 Ibid; Ibid; Ebaidalla M Ebaidalla, "The impact of taxation, technological innovation and trade openness on renewable energy investment: Evidence from the top renewable energy producing countries." *Energy* 306 (2024, a): 132539. <https://doi.org/10.1016/j.energy.2024.132539>; Ebaidalla M. Ebaidalla, "Impact of Indirect Taxes on CO2 Emissions in the Presence of Institutional Quality: Evidence from a Global Panel Data Analysis", *Management of Environmental Quality an International Journal*, Vol. 35, No. 4 (December 1, 2024, b), pp. 729-750. <http://dx.doi.org/10.1108/MEQ-08-2023-0290>

39 Wilfred Dolfsma & Stefan Kesting, *Interdisciplinary Economics*. (Routledge, 2009); Joram Feitsma & Mark Whitehead, "Bounded Interdisciplinarity: Critical Interdisciplinary Perspectives on Context and Evidence in Behavioural Public Policies", *Behavioural Public Policy*, Vol. 6, No. 3 (September 24, 2019), pp. 1–27. <https://doi.org/10.1017/bpp.2019.30>

Finally, the analysis of interdisciplinary articles across main disciplines from 2014 to 2023 reveals several notable trends and fluctuations. Overall, interdisciplinary publications have an apparent upward trajectory across the decade, emphasizing a growing trend towards multidisciplinary approaches within economics research. Political sciences and social studies emerge as the standout categories, showing a significant increase in interdisciplinary publications since 2019. This trend suggests a heightened interest and integration of social and political dimensions into economic research, reflecting broader societal and academic trends towards interdisciplinary collaboration. These findings confirm the trend reported in Figures 2 and 3.

In contrast, the trajectory of health-related articles, while generally increasing over the study period, experienced a decline in 2023. This dip may indicate temporary shifts in research focus or funding priorities within the healthcare economics domain during that year. The increased research on health issues during 2021-2022 can be attributed to heightened concerns stemming from the COVID-19 pandemic and its economic ramifications. Meanwhile, the consistent upward trends observed in law/institutions and technology articles throughout the study period highlight sustained academic interest and research output in these areas. The notable increase in technology-related interdisciplinary publications in the final year of the study period suggests ongoing exploration and integration of technological advancements into economic analyses. Indeed, the advent of information and communication technology (ICT) over the last three decades has spurred a considerable body of research in digital economics⁴⁰ Overall, the study's findings underscore the dynamic nature of interdisciplinary research within economics, influenced by evolving societal challenges, academic priorities, and technological advancements.

5. Concluding Remarks

This study aims to understand the evolution of interdisciplinary Economics and identify which disciplines are more integrated with economics during the recent decade. The study examined 9,255 articles from 20 economics journals ranked highly in the IDEAS/RePEc Aggregate Rankings between 2014 and 2023. The research found that among articles reviewed, interdisciplinary articles constitute 44.3%, signifying the integration of economics with other disciplines. Political sciences and social studies emerge as the predominant interdisciplinary themes, reflecting a robust intersection of economic theory with political and social frameworks. The study reveals

40 Paul Welfens, "Information & Communication Technology and Growth: Some Neglected Dynamic Aspects in Open Digital Economies," *Springer EBooks*, (January 1, 2002), pp. 29–52; Qozaqova Munajat Sharifjanovna. "The Role and Function of Information and Communication Technologies in the Digital Economy," *Aisa Pacific Journal of Marketing & Management Review*, Vol. 11, No. 5 (2022), pp. 19–21.

that despite disciplines such as environment sciences and psychology contributing fewer articles, their trend steadily increased, suggesting their importance in recent decades.

Moreover, articles on technology and innovation experienced increasing trends, reflecting the global technology revolution and globalization. The results also indicate a growing interest in research related to health economics, institutions, and law over time. Furthermore, the study shows that the percentage of interdisciplinary articles relative to pure economics increased over time, with a noticeable upward trend post-2018, peaking at 93% in 2023. These findings collectively emphasize the interdisciplinary nature of contemporary economic research, enriching scholarly discourse and offering comprehensive insights into complex economic phenomena across diverse disciplines.

While this study offers valuable insights into interdisciplinary trends within economics research, several limitations should be acknowledged. First, the study focused solely on articles from the highly-ranked economics journals within a specific timeframe. Future research could benefit from a broader sample encompassing more journals and a more comprehensive range of articles to provide deeper insights into this topic. Secondly, the study's exclusion of earlier periods before 2014 may overlook influences on interdisciplinary economic developments. This timeframe limitation could also affect the assessment of long-term trends and the persistence of interdisciplinary themes. Therefore, studies covering more extended periods could offer further insights into these issues. Third, while the study identifies prominent interdisciplinary categories like political economy and sociology, it does not extensively explore the qualitative aspects of interdisciplinary research collaborations or their impacts on advancing economic theory. Future research could explore the factors influencing the distribution of interdisciplinary articles across different thematic areas, fostering greater crossdisciplinary collaboration and enriching economic inquiry.

Additionally, future studies could investigate how interdisciplinary collaborations enhance the depth and breadth of economic analyses and influence policy formulation and implementation. Understanding the contributions of various disciplines to interdisciplinary research in economics could also deepen our understanding of complex socio-economic phenomena. Furthermore, future research could delve deeper into the factors driving these trends, such as policy developments, funding dynamics, and emerging research methodologies, to further enrich our understanding of interdisciplinary scholarship in economics.

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Appendices

Appendix I: List of Journals

#	Journal name	Publisher	Issues per year
1	American Economic Journal - Macroeconomics	American Economic Association	4
2	American Economic Journal: Applied Economics	American Economic Association	4
3	Annual Review of Economics	Annual Reviews	4
4	Econometrica	Wiley Online Library	6
5	Economic Policy	Oxford University Press	4
6	Experimental Economics	Springer	4
7	International Economic Review	Wiley	4
8	Journal of Development Economics	Elsevier	6
9	Journal of Economic Growth	Springer	4
10	Journal of Economic Literature	American Economic Association	4
11	Journal of Economic Perspectives	American Economic Association	4
12	Journal of Economic Surveys	Wiley	5
13	Journal of Labor Economics	University of Chicago Press	4
14	Journal of the European Economic Association	Oxford University Press	6
15	Quarterly Journal of Economics	Oxford University Press	4
16	RAND Journal of Economics	Wiley-Blackwell	4
17	Review of Economic Dynamics	Elsevier	4
18	The Economic Journal	Oxford University Press	8
19	The Review of Economic Studies	Oxford University Press	4
20	The World Bank Economic Review	Oxford University Press	4

Appendix II: Distribution of Articles Across Journals

#	Journal name	Number of articles	Pure articles	Interdisciplinary articles
1	American Economic Journal - Macroeconomics	384	349	35
2	American Economic Journal: Applied Economics	414	175	238
3	Annual Review of Economics	239	99	139
4	Econometrica	591	349	242
5	Economic Policy	231	95	136
6	Experimental Economics	413	165	248
7	International Economic Review	547	349	198
8	Journal of Development Economics	1006	392	614
9	Journal of Economic Growth	137	51	86
10	Journal of Economic Literature	265	95	169
11	Journal of Economic Perspectives	398	225	164

#	Journal name	Number of articles	Pure articles	Interdisciplinary articles
12	Journal of Economic Surveys	278	135	143
13	Journal of Labor Economics	393	260	133
14	Journal of the European Economic Association	552	266	286
15	Quarterly Journal of Economics	425	236	186
16	RAND Journal of Economics	350	227	123
17	Review of Economic Dynamics	559	465	94
18	The Economic Journal	1029	570	459
19	The Review of Economic Studies	656	441	230
20	The World Bank Economic Review	388	208	180