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Evolution of Research in Finance over the Last Two Decades – A Topographical View

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Abstract

A standard literature review focuses on the historical development of a particular topic. In contrast, the novel approach introduced in this study constructs a topographical map demarcating the relative importance, dispersion, and interrelationship among many finance topics. The final product is a bird's eye view of the whole literature illustrating historical trends, concentrations, and territories. We apply qualitative analysis, purposive sampling, and syntactic analysis to 34,261articles published in 52 journals over the past two decades. First, we analyze the proliferation and historical development of topics. We find that a few topics (e.g., insurance) are losing ground to newer ones (e.g., blockchain and digital currency). Yet, several topics seem to occupy a stable, sizeable portion of finance literature (e.g., investment strategies and portfolio management). Next, we analyze the relationship between topics and journals and report strong tendencies that are not always confined by the traditional scope of journals. For instance, papers addressing investment strategy and portfolio management issues seem to appear in numerous journals; while special topics such as blockchain, digital currencies, dividends, and real estate can only be found in a limited number of journals. We also report strong interdependence among topics. More than a third of the papers screened in this study discusses two topics or more. We identify a list of topics that are likely to be investigated jointly. Overall, our work demonstrates the historical evolution of the entire finance literature; and identifies fertile areas for future research.

Key Words: Finance, Literature Review, Qualitative Analysis, Purposive Sampling, Topographical Map.

JEL Classification: C25, I22

Evolution of Research in Finance Over the Last Two Decades – A Topographical View

1. Introduction

Academic research in the field of finance is evolving with new topics emerging almost constantly. Journals, on the other hand, have increased in number and have recently become more liberal in defining their scope (Danielson and Heck, 2014). For instance, the most recent publications in the Journal of Finance focus on risk management while the most cited paper focuses on corporate bankruptcy predictions using financial ratios (Altman, 1968). Similarly, Andrikopoulosa and Trichas (2018) explore patterns in publications in the Journal of Corporate Finance and report considerable variation in topics. Papers covering the issue of diversity and the environment have been receiving more attention in the Journal of Banking and Finance, which traditionally focuses on banking and financial institutions (Bennouri et al., 2018 and Zerbib, 2019). Further, several practical and theoretical considerations have caused research agendas to evolve in parallel, making the field more complex. Behavioral finance, for example, has evolved as a separate subfield without relinquishing its heritage as an extension of asset pricing models studies. This proliferation of interrelated topics combined with the increased complexity of journal-topic relationships calls for studies that depict the overall edifice of the field. This paper attempts to serve this purpose.

We observe increased interest in bibliometric literature reviews that portray the evolution of individual research agendas. Yet, we have very little research on how the whole finance literature has evolved. That is, numerous literature reviews address the historical development of individual topics, but we do not know much about the relative importance of topics or how they interrelate. Similarly, we have many papers that develop systems to rank journals, but we do not know how topics disperse over journals. In this paper, we develop a topographical map of literature that addresses these concerns. By definition, a topographical map of a region shows differences in

elevation and relative locations of landmarks. Analogically, a topographical map of the literature shows the concentration of topics across journals and time.

Using a sample of 34,664 papers published in 52 finance journals between 2000 and 2019, we apply qualitative analysis, non-probability purposive sampling, and syntactic analysis techniques to identify the routes that topics in finance have taken over the past two decades. Specifically, we apply purposive non-probability sampling to construct a sample that represents the literature without altering its structure. Next, we apply syntactic analysis (i.e., word parsing) to identify the content of papers in the sample. As a result, each article in the sample is represented by a vector of relative weights that capture the topics discussed in the article.

The topic-paper metrics are then aggregated into a three-dimension topographic map of the entire literature. The first axis depicts the historical development (i.e., time) and intersects a second axis concerning the dispersion of topics on journals. The interaction of these two axes reveals a journal-topic linkage that has often been ignored in the traditional bibliometric review process. Next, we look at the concentration of topics in the literature. That is, we introduce a third axis that captures the importance of each topic relative to other topics. The three sketches are then merged into a topographic map of finance literature. The final product is a web of threads and connections that portrays the dispersion of topics in the field.

Why is this important? Several rationales validate our exploration of the joint evolution of research topics in finance. First, we try to strike a balance between literature reviews and journal-ranking studies. We term this as a topographic map because it provides a bird's eye view of the field. Unlike literature review, which focuses on the theoretical and empirical developments of a certain topic and categorizes major findings, the objective of a topographic map is to show the joint development of *all* topics on a unified timeline. The emphasis is on the relative importance

of topics. Discussing the linkage between topics and publication outlets complements the sketch of the field. That is, unlike journal-ranking studies, which develop metrics to rank journals by their overall impacts (regardless of topic), the metrics used in this literature map captures the tendency of journals to publish papers on certain topics.

Second, researchers interested in understanding the current state of the field, or a certain topic therein, would benefit from a comprehensive map showing how various topics are positioned within the literature. Our holistic approach draws a topographical sketch that portrays overall developments, interrelationships, and concentrations (i.e., where certain subjects are likely to be found). This is analogical to navigating a diagrammatic map showing territories, landscapes, milestones and routes.

Furthermore, we refer to the journey of a doctoral student documented by Pansiri (2009) where the author highlights the difficulties to identify gaps in the literature. The sharp increase in the number of journals and the proliferation of topics and subtopics often exacerbates the difficulty for young researchers to identify viable areas of research. This brings us to the issue addressed by Baker and Pifer (2011). The World Economic Forum[2], concerning the 2019 OECD Education at glance statistics, identifies the United States as the highest producer of doctoral candidates. While such growth in Doctoral graduates is promising, less attention has been placed on the transition from dependence to independence among fresh doctoral graduates. We believe that our literature map would contribute to this transition and stimulate interest among early-career scholars in studying contemporary issues in finance.

[2] Please see the article titled "Which countries have the most doctoral graduates?" available at: https://www.weforum.org/agenda/2019/10/doctoral-graduates-phd-tertiary-education/

We report the evolution of 27 research topics in 52 journals in the form of a topographical map where mountains signify topics that have received greater interest and valleys represent topics that have received minimal interest over the past two decades. This way, we can identify overall trends where some topics (e.g., Banking and Investments) dominate research interests, others are being gradually pushed to the side (e.g., insurance), while others are gaining traction (e.g., Digital Currencies). More specifically, the most researched topics are Banking & Financial Institutions, Investment Strategies & Portfolio Management, and Capital Structure. These topics are also the major contributors to the overall growth of finance literature which is estimated at 4.03% per year. The least researched topics are Blockchain & Digital Currencies, Social Finance, and Islamic Finance. Nevertheless, these are the fast-growing topics (albeit their overall size is small, which explains why they do not contribute much to the overall growth of the literature). In 2000, the interest in Derivatives & Commodities, Market Microstructure, Capital Structure, Governance & Information Asymmetry, and Investment Strategies & Portfolio Management was the highest. Over the past two decades, we observe a relative increase in interest in Capital Structure, Governance & Information Asymmetry, and Investment Strategies & Portfolio while the relative interest in Derivatives & Commodities and Market Microstructure remained stable.

Next, we draw another topographical map that represents the frequency of journal-topic pairs in 2000-2019. Unlike the previous map, which focuses on historical trends, this one focused on the concentration of topics in journals. As such, a mountain represents an increased interest in publications related to a certain topic in a certain journal. A valley represents the opposite case. In a nutshell, this map helps researchers identify journals where certain topics are more likely to be found. It also shows which journals are more or less liberal in terms of accepting topics (we used the Herfindahl-Hirschman Index, HHI, to measure the overall concentration of topics in journals.

We report evidence that journals generally adhere to their advertised scope. To mention a few examples, Banking and Financial Institutions papers are more likely to be found in the Journal of Banking and Finance. Similarly, papers on Derivatives and Commodity are highlight concentrated in the Journal of Futures Markets. Nevertheless, we report evidence that journals do sometimes entertain topics outside their traditional scope and, accordingly, certain topics can be found in journals that researchers, especially younger ones, do not anticipate. For example, the Journal of Banking and Finance has accepted papers on Capital Structure, Investments & Portfolio Management, Market Microstructure, Econometrics, and Behavioral Finance. The most concentrated journals (i.e., they publish more papers on fewer topics) are the Journal of Risk and Insurance Corporate Governance and the Journal of Financial Econometrics. The least concentrated journals (i.e., their interests are broader) are the Pacific-Basin Finance Journal, European Financial Management, and International Review of Financial Analysis.

We also look at the dispersion of topics over journals. Unlike the previous exercise, which investigates the concentration of topics in each journal, this time we explore where (i.e., in what journals) each topic is likely to be found.

A low standard deviation indicates that the topic tends to be concentrated on a few journals, while a high standard deviation indicates that the topic is spread out over a wider range of journals. A low standard deviation indicates that the topic tends to be concentrated on a few journals, while a high standard deviation indicates that the topic is spread out over a wider range of journals. The smallest SD is associated with Blockchain & Digital Currency which is found in 14 journals; followed by Islamic Finance which can be found in 15 journals and Social Finance which is found in 25 journals. This is not surprising given the recency of these topics. The highest SD is associated with Econometrics and Behavioral Finance which are found in 51 journals (out of 52) and Banks

and Financial Institutions which is found in 50 journals (out of 52). This is quite expected given the popularity of these topics.

Finally, we document evidence of topic interdependence. That is, we show that certain topics are likely to be explored jointly with other topics. Overall, almost a quarter of all papers analyzed in this paper discuss two or more topics jointly. This trend seems to be stable over the past two decades with a very little year-to-year variation. The highest association is found between Capital Assets Pricing Models & Stock Behavior and Investment Strategies & Portfolio Management. About half of the papers that discuss Capital Asset Pricing Models & Stock Behavior discuss other topics such as Econometrics and International Finance. We also observe a strong association between Interest Rates & Bonds and Capital Structure, and between Small businesses & Entrepreneurship and Household Finance & Financial Planning. The least jointly-research topic is International Financial & Crises and Islamic Finance. Investments & Portfolio Management, Banks & Financial Institutions, Household Finance & Financial Planning, and Capital Structure are most likely to be discussed as the second topic.

Our work contributes to the literature as follows. This is the first study that portrays a topographical map of the extant literature of finance. This bird's eye view provides a holistic view of the field (as opposed to literature reviews that focus on individual topics) and reveals concentrations as well as journal-topic relationships. On the other hand, our work provides a topic-specific evaluation of journals (as opposed to traditional journal-ranking studies that focus on overall quality). As such, our work provides a finer metric that evaluates journals at the topic level. Further, our topographical literature map reveals a few trends such as the interdependence of topics. Finally, the paper discusses and applies a few methodologies that are not very common in finance; namely, qualitative analysis, non-probability purposive sampling, and syntactic analysis.

2. Paper Motivation and Review of Related Work

Journal-ranking studies are prevalent in finance literature. They are mainly concerned with the assessment of the quality and impact of finance journals (McNulty, and Boekeloo, 1999). The most applied metric of assessing journals' quality is several citations i.e., the average number of citations that a paper in the journal receives. Borokhovich, Bricker, and Simkins (1999) and Zivney and Reichstein (1994) apply citations score to assess the quality of finance journals. Chan, Folk, and Pan (2000) and Arnold, Butler, Crack, and Altintig (2003) use citation scores to assess the influence of financial research. Chung, Cox, and Mitchell (2001) analyze citation patterns in the finance literature. Nevertheless, several other metrics have been developed, such as the difficulty of publication (Beattie and Goodacre, 2006), library holdings or market-based studies (Borokhovich, Bricker, Zivney, Sundaram, 1995, and Bertin, Prather, and Zivney, 1994), experts' opinion or perception studies (Oltheten, Theoharakis, and Travlos, 2005; Borde, Cheney, and Madura, 1999), and authors' affiliation (Chen, and Huang, 2007).

The main objective of journal-ranking studies is to produce a metric that reflects the relative importance, or prestige, of journals. This is often used to assess faculty scholarly output in the promotion and tenure decisions; or to assess the reliability of findings (Zivney and Bertin, 1992). Alexander, and Mabry, 1994). Several authors have highlighted limitations that are inherent in all journal-ranking studies. To mentions a few, journal-ranking studies tend to be static and time-dependent (Kao, Hsu, Lu, Fung, 2016). Other limitations are dependence on citation as an indicator of influence, personal biases in perception studies and affiliation studies, and economic influences in library holdings studies (Beattie and Goodacre, 2006). In this study, we attempt to mitigate another limitation of journal-ranking studies. We posit that journal-ranking studies ignore topic-specific factors. Several journals are inherently focused on certain topics. For that reason,

the citations, personal opinions, or library acquisition decisions might be a function of the corresponding interest in the topic. For that reason, it would be interesting to develop a method that analyzes the journal-topic relationship.

Literature reviews, on the other hand, tackle topics, one at a time. A literature review study on a topic is more or less an integrative overview of the historical development of the topic under question. Literature review authors attempt to encapsulate in a single manuscript the current body of knowledge on the topic. To do so, they identify, appraise, critique, select and synthesize evidence and competing arguments relevant to the topic as depicted by previously published work in academic journals. Needless to say, literature reviews help a researcher who is interested in a particular topic. As such, they target scholars who presumable know what they are looking for. Literature reviews do not assess the importance of a topic and do not systematically explore its connection with other topics. As many authors have indicated, this is a real challenge because the literature has expanded rapidly and in aver y complex fashion (see for example Danielson and Heck, 2014 and Zivney and Bertin, 1992). We need a tool that captures the complexity and diversity of all topics. Such a tool will give a bird's eye view of literature, portray dispersion of topics, and highlight journal-topic relationships. This is what we attempt to construct in this paper. We draw a topographical map of finance literature inclusive of all topics published in high-quality journals over the past two decades. Such a map will complement single-topic literature reviews. We believe that the map we produce would be ideally helpful to younger scholars who have not yet established themselves as experts in any particular sub-field of finance.

3. Methodology and Sample Construction

3.1 Sampling Technique

It is often problematic to select the best sampling method to answer research questions from a wide variety of available methods. Where do we start? How many journals to include? What would be considered good criteria to include/exclude journals? There are a plethora of journals that publish research articles in finance. Therefore, constructing a database that includes all journals that publish scholarly work in finance is inefficient and costly. A probability sampling technique, for example, the random sampling approach, is certainly the safest choice from a strictly statistical perspective. However, the objective of this research is not to generalize findings or draw conclusions based on conventional statistical inference. The goal here is to build a manageable sample that convincingly mimics the hierarchal structure of academic journals where impactful research is found. This necessity automatically rolls out the application of probability sampling in this study as it may inadvertently distort journals rankings. For instance, a purely random sampling procedure may exclude a highly influential journal (for example, *the Journal of Finance*).

Constructing a representative sample by hand is not a good alternative either; it raises concerns of subjectivity because it carries a risk of being biased by the researcher's views. For these reasons, we decided to consider a non-probability sampling method, which strikes a balance between pure randomness and researcher-imposed selection. Specifically, we found that non-probability purposive sampling is the best approach for this research.

Purposive sampling is applicable in situations where the researcher can obtain a better sample by using sound judgment than by using probability sampling. At the same time, purposive sampling preserves a certain level of randomness that preempt accusations of subjectivity and personal bias. More specifically, purposive sampling becomes particularly paradigmatic in certain

cases where the goal is to understand data, not to generalize the findings; and when a modest direction by the research is tolerable and desirable [please see Flick, 2013; Bell, Bryman, & Harley, 2019].

To summarize, we found that the non-probability, the purposive sampling method is most appropriate for our current inquiry because we need an efficient and manageable sample that meets two criteria. First, it does not exclude top-tier, well-known journals. Second, it convincingly represents the population of journals by including the majority of journals where the impactful finance articles are published. [3]

3.2 The Sample

We start with the Australian Business Deans Council (ABDC) Journal Quality List. The list is developed by expert panels which conduct an extensive review to assess journals quality and impact. The ABDC list is widely used by business schools. The 2019 List endorses 2,682 journal entries with the classifications shown in the table below.

[Insert Table 1 about here]

To emphasize quality, we keep A*- and A-level journals only. Eliminating B- and C-level journals reduces the sample size to 850 journals representing the upper 31.69% of all journals in the ABDC list. The remaining list of 850 journals includes numerous finance and non-finance journals. As we mentioned before, non-finance journals sometimes publish finance articles.

[3] To illustrate, assume a hypothetical Business Dean who is evaluating the research output of a finance faculty for promotion or tenure considerations. He would want to build a purposive sample of finance journals. He should refrain from using a randomly selected sample of journals. Equally important, he should refrain from using a self-selected sample. Keeping in mind that the "purpose" of the sample is assessing how faculty's research agenda stacks up against extant finance literature, he would need to construct a sample of journals that is 1) quality-driven, 2) reasonably comprehensive and 3) manageable. In other words, he would build a sample that serves a specific purpose, hence the name: purposive sampling.

However, in the interest of keeping the research focused, it is safe to consider these publications "isolated" incidents.[4] Thus, we apply a second criterion. we require that the journal-title must include at least one keyword that indicates a finance journal.

The list of keywords is obtained by parsing lists of journals found in a few prominent journal ranking papers [Chen & Huang, 2009; Currie & Pandher, 2010; Danielson & Heck, 2014; Holden, 2017]. The list of keywords we use includes Finance, Financial, Financing, Investment, Investing, Portfolio, Wealth, Asset(s) Pricing, Money, Credit, Bank(s), Banking, Capital Market(s), Financial Market(s), Governance, Corporate, Derivatives, Futures, and Fixed Income. This exercise identifies 52 journals.[5]

For each journal in our sample, we collect key textual information including the title, year of publication, volume, authors, subjects (keywords), and abstracts for all volumes issued between 2000 and 2019. The result is 69,999 entries in 52 articles.

We only consider full studies; therefore, we exclude corrigenda, errata, issue information, editorial notes (and statements and introductions), comments and responses, reports to readers, obituaries, volume index, award announcements, symposium and conference and annual meetings

[4] Excluding non-finance journals should not affect the quality of this paper. While a few good finance papers may exist outside the realm of finance journals, the bulk of mainstream finance literature would always reside inside the realm.

[5] As a second ranking system, we use Scopus. Scopus is a large database of peer-reviewed journals, books and conference proceedings in many scientific fields. For each journal in the sample, we report its Scopus CiteScore and Percentile. CiteScore is calculated as citation count received in a certain year to documents published in the prior three years divided by the number of documents published in the prior three years. Formally,

$$Cite\ Score\ = \frac{Citations\ in\ Year\ T\ to\ Publications\ Years\ T-1, T-2\ and\ T-3}{Number\ of\ Publications\ Years\ T-1, T-2\ and\ T-3}$$

At the time of constructing the sample for this paper, the available CiteScore used the 2018 citation count which was last updated in March 2020. In addition to CiteScore, the Scopus database reports a Percentile for each journal. Scopus and ABDC do not always produce consistent ranking. For instance, *The Journal of Finance* is classified as an A*-level journal in ABDC; its CiteScore is 10.3 which is the highest in our sample, and its percentile is 99%. In contrast, *The Journal of Financial Research* is classified as an A-level in ABDC; its CiteScore is 0.8 which is the lowest in our sample, and its percentile is 27%.

reports, call for papers, acknowledgements, policy notes, executive summaries, book reviews, fellowship announcements, miscellanea, table of contents, subscription pages, and repetitions. This reduces the sample size to 49,905 research articles. Finally, we require that the abstract is available, and the paper must have at least one citation by different authors (i.e., self-citation does not count). This reduces the sample size to 37,332 research articles published in 52 journals between 2019 and 2020.

3.3 Syntactic Analyses

We parse the textual information of all articles to depict the dispersion of topics over time and across journals. We use recent literature reviews to generate lists of keywords and terms that are indicative of a certain topic. Then, we run an algorithm that counts the frequency of these words in the title, subjects, and abstracts of each paper in the sample. We identify 27 different topics. As such, each paper is represented by a 1×27 row vector that signifies its content. Each item in the row vector represents the frequency of keywords and terms that pertain to a specific topic. To illustrate, we present an example.

Illustration – Tracing Merger and Acquisition Content

> For each paper, we parse the title, keywords (subjects), and abstract to identify the frequency of the following words: merger(s), acquisition(s), diversification(s), target(s), acquirer(s), merge(s), merging, acquire(s), acquiring, consolidation(s), announcement return(s), divestiture(s), diversify(ies), takeover(s), multi-segment, and M&A(s). This list is generated from Guerras-Martín, Ronda-Pupo, Zúñiga-Vicente, Benito-Osorio (2020). They build a sample of 1,253 M&A articles over

the period 1970-2017 to analyze the evolution of corporate diversification literature. [6]

The frequencies of these keywords and terms are then summed into a score that represents the M&A content of the paper. To further illustrate, consider the following paper.

TITLE

Target's organizational form and returns to Australian bidders in cross-border acquisitions.

ABSTRACT

We present large-sample evidence on return performances of Australian acquirers who bid for public and private targets in cross-border acquisitions. While placing a particular emphasis on the method of payment and the shareholder protection offered by the target country, we analyze the impact of various bid, firm and foreign-acquisition-specific characteristics on bidding firms' abnormal returns. We find that Australian investors perceive cross-border acquisitions as value-creating exercises regardless of the organizational form of the target acquired. However, bidders for private targets earn a higher return when the method of payment is stock, and the targets are located in high investor protection countries. We further find that the abnormal returns are conditional to the relative size of the target, bid frequency, target country destination and the pre-acquisition financial performance of bidding firms.

SUBJECTS (KEYWORDS)

Organizational goals; Rate of return; Bidders; Consolidation &; merger of corporations; Stockholders; Financial performance; Australia

[6] Our algorithm recognizes variant forms of the key words and terms. For instance, our algorithm recognizes that diversify, diversifies, diversifier, diversifiers, refer to the same concept. Similarly, our algorithm distinguishes between "merging" and "emerging" and between "merge" and "emerge." The words "emerging" and "emerge" are not indicative of an M&A content.

This article will be assigned a score of 17 on the merger and acquisition topic. 17 is computed as 2 (title) + 13 (abstract) + 2 (subject).

When the same procedure is repeated for all papers, we obtain a $1 \times 37{,}332$ column vector. Each item in this column vector represents the M&A score of the corresponding paper. A higher score indicates higher content of M&A and vice versa. [7]

We repeat the procedure explained above for all 27 topics. The result is a $37{,}332 \times 27$ matrix where the rows represent papers (denoted i were $i = 1, 2, \ldots 37{,}332$) and the columns represent topics (denoted j were $j = 1, 2, \ldots 27$). Each item is denoted $Score_{i,j}$ and represents the score of topic j in paper i. Scores are then converted into percentage of content as follows,

$$\%Content_{i,j} = \frac{Score_{i,j}}{\sum_{j=1}^{27} Score_{i,j}} \quad (1)$$

were, $\%Content_{i,j}$ is the percentage of the content of paper i that belongs to topic j.

The fact that we take relative, not absolute, count of keywords ensures consistency and accuracy. To illustrate, the paper mentioned above will not pass as an M&A paper as a result of the simple counting of 17 key M&A words. It will do so only if the M&A relative content (i.e., the weight of the 17 M&A words) is substantial relative to other topics. To illustrate, for the paper above $\%Content_{1884,M\&A} = 91\%$. This means that other keywords that signify non-M&A topics count for only 9%. This is predominantly an M&A paper.[8]

[7] We did consider using JEL classification codes. This would have cut the sample size to less than 10% due to unavailability of data and the use of different coding systems. Furthermore, we believe that our syntactic technique is more powerful for two reasons. First, it uses titles, subjects, and abstracts, which are presumably more representative of the true content and scope of a paper. Second, and more importantly, our analysis captures the relative weight of each topic in the paper; JEL classification is binary.

[8] The authors are aware of the existence of bibliometric analysis. The objective of bibliometrics is to construct a citation graph that depicts citations between documents in a certain topic. It does not measure the relative importance or weight of any particular topic. To illustrate, bibliometric analysis would reveal that document A has cited document

Furthermore, to increase the precision and accuracy of our analysis, we will only consider a paper-topic pair if $\%Content$ is 25% or more. That is, to associate a paper with a topic, we require that at least a quarter of all keywords in the title, keywords (subjects), and abstract is concentrated on that topic. Further, we consider a paper-topic pair only if the title, keywords (subjects), and abstract include more than three keywords related to the topic. That is, three occurrences, or less, of key terms, do not establish a connection between the paper and the topic. These two additional requirements ensure that the accidental appearance of keywords does not count. It also ensures that a paper is not linked to a topic unless there is a substantial discussion of the topic in the paper. If a paper is not linked to at least one topic, it is not considered and eliminated from further analysis. This requirement reduces the sample size to 34,261 papers (in 52 journals) covering 27 topics (a matrix of $34{,}261 \times 27$). In this final matrix, the rows represent papers (denoted i were i=1,2, … 34,261) and the columns represent topics (denoted j were j=1,2, … 27). It is noteworthy that the two additional requirements have reduced our sample size by 8.2% only. This is evidence that our procedure, overall, is reasonably accurate because 91.8% of the paper are linked to at least one topic. Table 2 shows the structure of the final sample.

[Insert Table 2 about here]

The numbers in Table 2 indicate that the sample is fairly balanced. Panel A shows that the oldest journal in the sample is Financial Analysts Journal (1945) and the newest is the Journal of Financial Reporting (2016). The Journal of Banking and Finance includes 11.09% of papers in the sample (3,799 papers) and the Journal of Financial Econometrics includes 0.02% of papers (7 papers). The number of A-level journals is 39 and the number of A*-level journals is 13. The

B which is also cited by document C. Syntactic analysis, in contrast, reveals the relative concentrations of various topics in documents A, B, and C.

numbers in the correlation matrix (Panel B) are quite expected. Older journals are associated with a greater Percentile ($Corr = -0.11$) and CiteScore ($Corr = -0.26$). The Percentile and the CiteScore are strongly positively correlated ($Corr = +0.76$). Panel C shows that an average journal in the sample has a Percentile of 73%, CiteScore of 3.1, and includes 1.92% of the papers in the sample.

The highest Scopus Percentile score is 99% (Journal of Finance – see panel A) and the lowest is 21% (Journal of Fixed Income). The highest CiteScore is 10.3 (Journal of Finance) and the lowest is 0.6 (Journal of Fixed Income). Panel D shows the distribution of several topics per paper. About 72.83% of the papers were matched with a single topic. Multi-topic classification is understandably less frequent with 25.19%, 1.98% of the papers linked to two and three topics; respectively. In theory, a paper can be linked to up to 4 topics (we require that at least 25% of keywords are associated with a single topic to establish a paper-topic relationship).

4. Results

3.1 Evolution of research on finance

This section provides an overall view of the development of topics in finance literature over time. As mentioned above, a paper is associated with atopic if, and only if, the number of keywords for that topic represents 25% or more of all keywords found in the title, subjects, and abstract of that paper. In Table 3, we split the sample by years and report the raw number of paper-topic pairs for each topic in each year

[Insert Table 3 about here]

The Table depicts the relative concentration of topics over time. The total number of paper-topic pairs is 40,229[9]. The most researched topic seems to be the Banking & Financial Institutions which appears in 4774 papers representing 11.87% of all papers examined. Next comes Investment Strategies & Portfolio Management (8.47%), followed by Capital Structure (7.61%). On the other hand, the least researched topics are Blockchain & Digital Currencies (0.18%) followed by Social Finance (0.19%) than Islamic Finance (0.26%). This finding is not quite surprising given the significance and legacy of these topics within the finance literature.

The second last row in Table 3 reports average (arithmetic) annual growth. Not surprisingly, newer and smaller topics witness greater average annual growth. For instance, the smallest topic, BlockChain and Digital Currencies (which appears in 0.18% of literature) is the fastest-growing topic at a rate of 153.19% per year. This finding is mathematically sound because a single paper on a relatively small topic represents a greater within-topic growth than a single paper in a larger topic. The sheer difference in the relative sizes of topics makes it hard to compare growth this way. For that reason, in the last row of Table 3, we report the contribution of each topic to the average (arithmetic) annual growth of the entire finance literature. The numbers show that the average annual growth of the finance literature is 4.03%. Interestingly, the contribution to literature growth is not a linear function of the size of topics. The following figure illustrates this fact.

[Insert Figure 1 about here]

Table 3 and Figure 1 shows that the largest contributors to the growth of finance literature are Capital Structure (0.42%), Investment Strategies & Management Portfolios (0.40%), and

[9] It is quite expected that number of paper-topic pairs is greater than number of papers (34, 261) because a paper could be associated with more than one topic.

Banks & Financial Institutions (0.39%). On the other hand, the least contributors to the growth of finance literature are Interest Rate & Bonds (-0.08%), REIT & Real Estate (-0.01%), and Islamic Finance (0.03%).

3.2 Topographical Map of Finance Literature

Figure 2 below depicts the topography of finance literature during the last two decades. By definition, a topographical map of a territory is constructed with large-scale detail and a quantitative representation of the surface using contour lines that show the points of equal elevation. In our context, a topographical map represents the frequency of finance topics over the years 2000-2019. As such, a mountain signifies a topic that has received an increased interest by authors (in all journals). A valley represents the opposite case.

[Insert Figure 2 about here]

The topographical literature map depicted in figure 2 reveals the historical evolution of interest in various topics. The largest mountain is associated with Banking & Financial Institutions. This topic has historically attracted the most attention of scholars and this trend seems to continue in the recent past. The next highest mountain is associated with Investments Strategies & Portfolio Management. Like the previous topic, this one has attracted relatively more attention. The next two heights are associate with Capital Structure and Governance & Information Asymmetry. Both shows consistent growth over time and relative importance compared to other topics.

A few interesting trends are found. The interest in Derivatives & Commodities and Market Microstructure was comparable to the interest in Capital Structure, Governance & Information Asymmetry, and Investment Strategies & Portfolio Management in 2000. Over the past two decades, however, the interest in Derivatives & Commodity and Market Microstructure did not grow as fast. .

The map depicts a few valleys that deserve extra attention. Research on REIT & Real Estate and Small Businesses & Enterprises has been historically marginal and it does not seem to be gaining any momentum. Emerging fields such as Islamic finance, Environmental Finance, Social Finance, and BlockChain & Digital Currencies also occupy valleys, which indicates little interest. However, the interest in these fields is increasing (see Table 3 for exact growth rates). The interest in certain topics has been increasing remarkably. For instance, the interest in Blockchain & Digital Currency, albeit relatively small, started in 2016 and has been increasing significantly and relentlessly since then.

3.3 The Concentration of Topics in Journals

In this section, we analyze the distribution of 27 topics over 52 journals. To do so, we calculate the content share of each topic presented in each journal (in all years 2000-2019). That is, we split the sample by journals and observe the concentration of topics. For each journal, we report the number of paper-topic pairs for each topic. The result is a 1 X 27 vector where each item represents the number of papers related to the corresponding topic published in the journal between 2000 and 2019. We do the same for all journals to obtain a 52 X 27 matrix. This matrix depicts the topography of finance literature during the last two decades and focuses on the journal-topic relationship. See Figure 3 below. Unlike the previous map in Figure 2, this topographical map represents the frequency of journal-topic pairs in 2000-2019. As such, a mountain represents an increased interest in publications related to a certain topic in a certain journal. A valley represents the opposite case.

[Insert Figure 3 about here]

The highest frequency observed is 1109 papers in Banks & Financial Institutions published in the *Journal of Banking and Finance* (JBF). Next comes 760 papers on Banks & Financial

Institutions published in the *Journal of Money, Credit and Banking* (JMCB). Next comes 707 articles on International Finance & Financial Crises published in the *Journal of International Money and Finance* (JIMF). Other high mountains include 577 articles on Governance, Agency, & Information Asymmetry published in *Corporate Governance*; 544 articles on Insurance in the *Journal of Risk and Insurance*; 520 articles on Derivatives & Commodity published in the *Journal of Futures Market*. We believe that this distribution of journal topics is quite reasonable given the traditional focus of these journals. In the subsequent section, we look deeper into this issue.

The numbers presented in Figure 3 above helps researchers identify journals where articles on certain topics are more likely to be found. Nevertheless, the numbers in Figure 3 cannot be used to judge journals interests in topics because some journals publish more articles. For that reason, we look at percentages. For each journal, we report the number of paper-topic pairs for each topic as a percentage of all paper-topic pairs in that journal. The result is a 1 X 27 vector where each item represents the content share of the corresponding topic in the journal. We repeat the procedure for 52 journals to obtain a 52 X27 topographical map that shows the concentration of topics in journals. Results are shown in Figure 4 below.

[Insert Figure 4 about here]

The sum of all content shares for each journal is 100%. The highest concentrations are found in the Journal of Risk and Insurance (63.92% of articles are on Insurance); Corporate Governance (62.72% of articles are on Governance, Agency, & Information Asymmetry); Journal of Financial Econometrics (60% of articles are on econometrics). Again, were believe that these concentrations are quite expected given the traditional interest in journals. The findings in Figures 3 and 4 motivate our subsequent analysis. We ask questions like: besides the traditional interests

of journals, are there any secondary interests? Similarly, we explore where topics can be found in journals other than traditional targets?

3.4 The Concentration of Topics in Journals – A Closer Look

In this section, we delve deeper into concentrations and Journal-topic relationships. We use the content shares to compute the Herfindahl-Hirschman Index (HHI) which measures the overall concentration of topics in journals. It is calculated by squaring the content shares of all topics presented in a journal and then summing the resulting numbers. By construction, HHI ranges from close to zero (least concentrated) to 10,000 (most concentrated). Results are reported in the table below. In the interest of space and clarity, we present the top five topics for each journal only. The rest of the results is available upon request from the authors.

[Insert Table 4 about here]

The most concentrated journal is the Journal of Financial Econometrics (HHI = 4,400). This is quite expected given the highly focused scope of the journal. This is further affirmed by the relative importance of topics in the journal. 60% of articles are paired with Econometrics. The next popular topics in that journal are M&A & Diversification (20%) and Capital Asset Pricing Models & Stock Behavior (20%). The next journal on the list of concentrations in the Journal of Risk & Insurance (HHI=4,269). Again, this is quite expected given the focused scope of the journal. Not surprisingly, the most popular topic is Insurance (63.92%). Next comes Corporate Governance (HHI=4,042) with Governance, Agency, & Information Asymmetry being the most popular topic (62.72%). The fourth is the Journal of World Investment and Trade (HHI = 3,292) and the most popular topic is international finance and financial crises (49.65%). The fifth is the Journal of Futures Markets (HHI = 2,912) where the most popular topic is derivatives and commodities (50.63%).

The least concentrated journal is the Pacific-Basin Finance Journal (HHI = 605). The relative importance of topics in the journal is quite low. 11.28% of articles are paired with the Investments $ Portfolio Management, 9.89% with Governance, Agency, & Information Asymmetry, 8.18% with Banks & Financial Institutions. The next least concentrated journals are the European Financial Management (HHI=608) International Review of Financial Analysis (HHI = 645).

A few secondary observations are worth mentioning. The highest journal-topic concentration is found in the Journal of Risk and Insurance - Insurance is the most popular topic occupying (63.92%) of the first topic spot. The second concentration is found in Corporate Governance where the topic of Governance, Agency & Information Asymmetry occupies the first topic spot with 62.72%. Similarly, 60.00% of the articles in the Journal of Financial Econometrics discuss econometrics. This finding confirms an earlier finding in this paper and is also supported by subsequent analysis. Specialized journals do live up to their expectation.

3.5 Dispersion of Topics over Journals

This section looks at the topic-journal relationship from a different angle. This section attempts to show where (i.e., in which journals) a certain topic is more likely to be found. To find out, we split the sample by topics (not journals as in the previous section) and report the number of paper-topic pairs for each topic as a percentage of all paper-topic pairs in each journal (not in each topic). The result for each topic is a 1×52 vector. Each element in the vector represents the content share of that topic in the corresponding journal (like in the previous section).

However, the content shares in a vector will not add up to 100% and, thus, Herfindahl-Hirschman Index (HHI) is not applicable. This is not by a chance; this section investigates what journals are more inclined to publish certain topics. As such, it is quite expected that certain

popular topics (e.g., Investment Strategy & Portfolio Management) will occupy sizeable portions in many journals while newer topics (e.g., Blockchain & Digital Currencies) will occupy smaller portions in a few journals. For that reason, we report another metric that captures the dispersion of topics, namely: standard deviation (SD) of content shares. For each topic, the standard deviation is computed with that topic shares in all journals.

A low standard deviation indicates that the topic tends to be concentrated on a few journals, while a high standard deviation indicates that the topic is spread out over a wider range of journals. Furthermore, we report the count of journals where the topic is found; we call this number *J*. Results are reported in the table below. In the interest of space and clarity, we present the top five journals for each topic only. The rest of the results is available upon request from the authors.

[Insert Table 5 about here]

The smallest SD is associated with the Blockchain & Digital Currency (SD=0.43% and Js=14). This is not surprising given the recency of the topic and earlier findings of this paper. It occupies 2.74% of papers in the Finance Research Letters, 1.18% in the International Review of Financial Analysis, 0.71% in the Journal of World Investment and Trade, 0.54% in the Journal of International Financial Markets, Institutions & Money, and 0.39% in the International Review of Finance. Next comes the topic of Islamic finance (SD=0.78% and Js=15). It occupies 5.26% of the Pacific-Basin Finance Journal, 1.82% of the Journal of International Financial Markets, Institutions & Money, 1.03% of the Global Finance Journal, 0.81% of the Journal of Financial Services Research, and 0.39% of the International Review of Finance. The third, fourth, and fifth spots go to Social Finance (SD=0.78% and Js=25), REIT and real estate (SD=3.75% and Js=38), and small business and entrepreneurship (SD=0.89% and Js=39).

The highest SD is associated with econometrics (SD=9.70% and Js=51). This is quite expected given the popularity of the topic (see earlier findings in this paper). This topic occupies 60.00% of the Journal of Financial Econometrics, 29.89% of the Mathematical Finance, 26.47% of the Finance & Stochastics, 24.25% of the Quantitative Finance, and 17.38% of the Review of Income & Wealth. Behavioural Finance comes next (SD=6.97% and Js=51). It occupies sizable portions of the Journal of Behavioral and Experimental Finance (44.83%), Journal of Behavioral Finance (27.78%), Journal of Financial Markets (8.62%), International Journal of Managerial Finance (6.02%), and Review of Finance (4.48%). The third, fourth, and fifth topics are Banks & Financial Institutions (SD=11.74% and Js=50), Household/Personal Finance & Financial Planning (SD=5.16% and Js=50), and capital structure (SD=5.06% and Js=50).

3.6 Association of Topics

This section explores the association between topics. The question here is: what topics are more likely to be explored jointly in a single article? Mathematically, we compute the probability of linking a paper to a certain topic Y given that it is already linked to another topic X. Formally, we compute

$$PrX|Y = \frac{\#\ of\ papers\ that\ discuss\ \ X\ and\ Y}{\#\ of\ papers\ that\ discuss\ X} \qquad (2)$$

$PrX|Y$ is the likelihood of finding topics X and Y in all papers that discuss topic X. To illustrate, $Pr\ M\&A|Governance = 10.3\%$ mean that 10.3% of papers that discuss governance also discuss M&A. By construction, $PrX|Y$ ranges from zero (no association) to 1 (perfect association). Results are reported in the table below. In the interest of space and clarity, we present the top five associated topics only. The rest of the results is available upon request from the author.

[Insert Table 6 About Here]

Panel A shows that almost a quarter (25.19%) of papers analyzed in this research discuss two topics and about 2% discuss three topics. None of the papers in the sample was linked to more than three topics. Almost three quarters (72.83%) of papers were linked to a single topic. This trend seems to be stable over years with a very little year-to-year variation.

Panel B shows that there is a stronger association between certain topics. That is, certain topics are more likely to be investigated jointly in a single article. For instance, the highest association is between Capital Assets Pricing Models & Stock Behavior and Investment Strategies & Portfolio Management. Specifically, 30.95% of papers that discuss Capital Asset Pricing Models & Stock Behavior also discuss Investment Strategies & Portfolio Management. Capital Asset Pricing Models & Stock Behavior report the highest likelihoods of being discussed with another topic. . 16.47% of papers that discuss Capital Asset Pricing Models & Stock Behavior also discuss Econometrics. 5.94% of papers that discuss Capital Asset Pricing Models & Stock Behavior also discuss International Finance. This finding is explained by the obvious link between these topics and the prevalence of Asset Pricing Models & Stock Behavior studies. Next comes Interest Rates & Bonds; which is strongly associated with Capital Structure (25.78%) and Financial Accounting which is strongly associated with Firm Performance And Valuation (25.25%). We also observe a strong association between Small businesses & Entrepreneurship and Household Finance & Financial Planning (24.12%). Again, the obvious theoretical links between this topic explain these findings.

The least jointly-research topics are International Financial & Crises and Banks & Financial Institutions with the former being a topic that is least associated with other topics. Specifically, 1.08% of papers that discuss International Finance & Crises also discuss Banks & Financial Institutions; 0.54% discuss Econometrics & Methods, 0.38% also discuss Capital

Structure … etc. Put differently, more than 96% of papers that discuss International Finance & Crises do not discuss any other topics. The next least jointly researched topic is Islamic Finance. Less than 10% of papers that discuss Islamic Finance discuss any other topic.

5. **Investments & Portfolio Management is the topic that is most likely to be discussed with other topics. Looking at the second column of Panel B, this topic appears in 6 other topics as the first most co-researched topic. Next comes Banks & Financial Institutions (4), then Household Finance & Financial Planning (3) and Capital Structure (3). Given the prevalence of these topics (see earlier findings) it is not surprising that they are more likely to be jointly discussed. Conclusion**

The objective of this topographical literature map is neither to sort out findings in a particular topic (as in literature reviews), nor it is to assess journals' impact or quality (as in journal-ranking studies). A literature review focuses on the historical development of a certain topic, summarizes major findings, contrasts methodologies, and otherwise portray the theoretical evolution of the body of knowledge the pertain to that topic in particular. Journal-ranking research attempts to sort journals by their overall influence regardless of topic. It would typically address the journal ability to drive discussions or invite citations in all topics. Both literature reviews and journal ranking research are unable to answer questions such as: what is the relative prominence of various topics in finance? Is there an interrelation between topics over time and across journals? What journals are more likely to publish certain topics?

Therefore, we developed a methodology to portray a topographical literature map. We employ the purposive sampling approach which is a well-known non-probability sampling technique in qualitative research. Qualitative research, by construction, adopts an inductive view of the relationship between concepts and data. That is, concepts emerge from data (unlike quantitative analysis where data is used to verify hypotheses). We then apply syntactic analysis to identify the

content of 34,261 papers published in 52 journals over the past two decades. The syntactic analysis goes beyond bibliometric analysis (which focuses on citations among documents) and focuses on the content and reveals the relative concentration of topics inside documents.

A bird's eye view literature map is portrayed as follows. A timeline depicts the distribution of publications in each topic over time. The second axis represents the distribution of publications in each topic across journals. The third axis captures the relative distribution of topics over time and across journals. The final product is a web of threads and connections that portrays the dispersion of all topics in the field.

Our study highlights several shifts in research interest among finance researchers. In the past, finance research was dominated by traditional topics such as Capital Structure, Banks & Financial Institutions, Investment & Portfolio Management which focus primarily on the corporate finance and financial markets. However, the latest innovations in financial markets in terms of products and technology has shifted research attention, rather modestly, to explore contemporary issues, such as Cryptocurrency, Social Finance, and Islamic Finance. Our study finds that these topics are the fastest growing in finance literature despite their relatively small size. Furthermore, the topographical map allows exploring further issues like the association between topics and journals and amongst topics. We report evidence that journals are generally becoming more liberal in defining their scope and almost a quarter of papers analyzed discuss more than one topic. Finally, we report strong interdependency between topics. For instance, almost half of Capital Asset Pricing Models papers also discuss another topic. Nevertheless, there are a few topics, such as Insurance and Derivatives & Commodities, that seem to remain rather secluded and restricted to fewer journals

The methodology we present in this study applies a combination of techniques and methods that are new to literature review studies. We strike a balance between traditional literature reviews and journal-ranking studies. Then we add an analysis of historical interrelation among various topics in finance and dispersion of topics over journals. We hope that our work will pave the road for similar work that explores unvisited territories and sheds more light on literature structure and evolution.

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Appendix A – Topics and Indicative Words

The table below shows the 27 topics and areas screened in this literature map. It also shows the corresponding keywords. Our algorithm recognizes variants of the same words. For example, it recognizes verb forms (e.g., diversify, diversifies, diversifying, and diversified), plural and singular forms (e.g., merger and mergers; analysis and analyses), capital vs. small letters (e.g., Debt and debt), noun vs. adjective (e.g., statistics and statistical), abbreviations (e.g. DPS and dividend per share), and other variants of the same word (e.g., over-perform and overperform; method and methodology; behavior and behaviour). It also recognizes potential misspecification attributed to word similarity. For example, it won't count emerging as merging, and it won't count rational as ratio… etc.

No	Abbreviation	Topic/Area	Key words
1	M&A	M&A and Diversification	acquisition, target, acquire, merge, merger, consolidate, consolidation takeover, divestiture, diversify, segment, hostile, M&A, tender offer.
2	C.S.	Capital structure	debt, leverage, equity, capital structure, credit, bond, Modigliani, borrow, cost of capital, ownership, pecking order, trade-off theory, capitalization.
3	FPV	Firm Performance $ Valuation	firm value, enterprise value, cash flow, firm performance, WACC, cost of capital, earning, forecast, valuation, ROE, return on, ash flow, ROA, market cap, EBITDA, PE, P/E, ratio analyses.
4	Div	Dividends	dividend, payout, retained earnings, shareholders, stockholders, record date, ex-date, capital gain, DPS.
5	Inv	Investment Strategies, Portfolio Management	stock return, stock performance, stock price, investment strategy, portfolio, underperform, overperform, benchmark, analyst, sentiment, momentum, volatility, transaction cost, Sharpe ratio, allocation, timing, simulation, liquidity.
6	Fund	Mutual & Hedge Funds	fund, hedge fund, mutual fund, ETF, fund performance, fund management, exchange traded, fund return, money management, prospectus, net asset value, expense ratio, 12b-1.
7	Micro	Market Microstructure	market microstructure, bid, ask, bid-ask, spread, volume, volatility, liquidity, orders, trader, quote, price format, price discovery, broker
8	Real	REIT & real estate	REIT, real estate, property, investment trust, residential, commercial, rental, lease, facilities, office build, tenant.
9	Int	Interest Rates & Bonds	interest rate, duration, term-structure, term structure, discount rate, bond, debt securitization, yield, maturity, issuer, principal.
10	Gov	Governance, agency, & information asymmetry	governance, board, BOD, agency, monitor, asymmetry, fringe, CEO, director, disclosure, control, Sarbanes-Oxley, conflict of interest, compensation.
11	Reg	Government & Regulations	government, regulate, IRS, authority, welfare, bankrupt, SEC, financial statements, reporting, authority, fraud, Act, politic, guideline, FED
12	Insu	Insurance	insurance, health, overage, medical, commission, insured, liability, deductible
13	Drv	Derivatives, Commodities, & Alternative Investments	derivative, option, futures, commodity, alternative investment, precious metal, Scholes, strike, speculate, expire, underlying
14	CAPM	Capital Asset Pricing Models & stock behavior	pricing model, CAPM, share price, Fama, factor, momentum, beta, alpha, loading, liquidity, volatility, anomaly, risk premium, equilibrium
15	Hous	Household & personal finance & Financial Planning	household, personal, budget, planning, retirement, pension, family, advisor, bankruptcy, fiduciary, consumer, social security, children, health, saving
16	Econ	Econometrics & Methods	econometrics, athematic, quantitative, qualitative, modeling, probability, estimation, statistics, inference, predictive, method, empirical, stochastic.

17	Beh	Behavioral Finance	behavior, rational, efficiency, confidence, bias, underreact, overreact, personal, psychology, anomaly, experiment.
18	Intl	International Finance & Financial Crises	international, currency, exchange rate, central bank, lobal, crises, crisis, contagion, FDI, foreign direct, globalization, parity.
19	Bnk	Banks & financial institutions	bank, institutions, securitization, CDO, monetary, fiscal, collateralize, loan, FED, deposit
20	Acc	Financial Accounting	financial statements, audit, reporting, SEC, accrual, disclosures, big four, accountant, CPA, accounting, tax, earnings, GAAP
21	SME	Small Business & Entrepreneurship	mall business, startup, venture capitalist, small company, family, entrepreneur, SME, MSE, small enterprise, SBA.
22	IPO	Initial public offering, seasonal offering, listing & delisting.	IPO, initial public, listing, delisting, season, offering, issuance, going public, underwrite, SEC, investment bank, go public, due diligence, prospectus.
23	Edu	Education, pedagogy, case studies	case study, education, pedagogical, educate, learn, course, student, university, teach, professor, school, graduate
24	Blk	Blockchain & digital currencies	bitcoin, blockchain, digital currency, mining, cryptocurrency, electronic money, cryptography, alternative currency, peer-to-peer, miner, virtual currency.
25	Soc	Social Finance	access to finance, alternative finance, blended, development finance, entrepreneur, microfinance, agriculture, social finance, socially responsible, Islamic
26	Env	Environment Finance	carbon, climate, green, environment, social, ESG, socially responsible, green bond, renewable
27	Isl	Islamic Finance	Islam, sukuk, Islamic, Sharia, Quran, Muslim, Murabaha, Musharaka, Istinsna, Ijarah, Takaful

Table 1 – 2019 ABDC Journal Quality Classifications

In order to build a consolidated topographical map of finance literature, we need a manageable sample that convincingly mimics the hierarchal structure of academic journals where impactful research is found. Specifically, we need a sample that includes the majority of journals where the impactful finance articles are published. We start with the 2019 Australian Business Deans Council (ABDC) Journal Quality List which endorses 2,682 journal entries of various quality. We keep top 850 A*- and A-level journals only. Then we require that the journal title must include at least one key word that indicates a finance journal. This exercise identifies 52 journals as shown in Table 2.

Classification	Number of Journals	%
A*	199	7.42%
A	651	24.27%
B	850	31.69%
C	982	36.62%
Total	2,682	100%

Table 2 – Sample (2000-2019)

This table shows the structure of the final sample. We apply a non-probability purposive sampling technique. We use the 2019 ABDC Journal Quality List to select journals of A* and A quality. Then, we identify a list of 52 journals where the majority of impactful finance articles are published. Then, we use syntactic analysis to analyze the content of papers. That is, for each journal in the sample, we collect key textual information including the title, year of publication, volume, authors, subjects (key words), and abstracts for all volumes issued between 2000 and 2019. We apply several filters (explained in the main text). The final sample includes 34,261papers published between 2000 and 2019 in 52 top quality finance journals. We parse the textual information (title, abstract, and subjects) of all articles to identify content. We identify 27 different topics; then, each paper is represented by a 1×27 row vector that signifies its content. The procedure is repeated for all papers to obtain a $34{,}261 \times 27$ matrix (see main text). In this matrix, the rows represent papers (denoted i were $i = 1, 2, \ldots 34{,}261$) and the columns represent topics (denoted j were $j = 1, 2, \ldots 27$). Panel A shows a list of all journals as well as their ABDC ranking and Scopus ranking. Journals are ordered by year of inception then alphabetically. Panel B reports correlation and Panel C shows key statistics. Panel D demonstrates the fact that sometimes a single paper may address several topics.

Panel A – Finance Journals

#	Journal Name	Number in ABDC 2019 List	ABDC Rank	Year of Inception	Scopus Percentile	Scopus CiteScore	Number of Articles	%
1	Financial Analysts Journal	335	A	1945	66%	2.1	694	2.03%
2	Journal of Finance	835	A*	1946	99%	10.3	616	1.80%
3	Accounting & Finance	203	A	1961	82%	2.5	791	2.31%
4	Journal of Financial and Quantitative Analysis	774	A*	1966	89%	4.1	433	1.26%
5	Review of Income & Wealth	559	A	1966	72%	2.6	552	1.61%
6	Financial Review (US)	337	A	1969	31%	0.9	332	0.97%
7	Journal of Money, Credit and Banking	787	A*	1969	80%	3.2	1818	5.31%
8	Financial Management	336	A	1972	75%	2.6	143	0.42%
9	Journal of Financial Economics	775	A*	1974	98%	8.7	2112	6.16%
10	Journal of Business Finance & Accounting	666	A*	1974	76%	2.7	1021	2.98%
11	Journal of Portfolio Management	628	A	1975	43%	1.2	951	2.78%
12	Journal of Banking and Finance	759	A*	1976	87%	3.8	3799	11.09%
13	Journal of Financial Research	429	A	1978	27%	0.8	485	1.42%
14	Journal of Futures Markets	627	A	1981	69%	2.2	907	2.65%
15	Journal of International Money & Finance	442	A	1982	85%	3.6	1583	4.62%
16	Financial Accountability & Management	334	A	1985	92%	3.2	354	1.03%
17	World Bank Economics Review	631	A	1986	82%	3.2	370	1.08%
18	Journal of Financial Services Research	430	A	1987	81%	3.2	424	1.24%
19	Journal of Applied Corporate Finance	408	A	1988	NA	NA	546	1.59%
20	Journal of Real Estate Finance & Economics	137	A	1988	73%	2.0	745	2.17%
21	The Review of Financial Studies	841	A*	1988	97%	8.5	162	0.47%
22	Global Finance Journal	54	A	1989	74%	2.5	248	0.72%
23	Journal of Financial Intermediation	776	A*	1990	94%	5.3	317	0.93%
24	J of Int'l Fin. Markets, Institutions & Money	440	A	1990	87%	3.8	950	2.77%
25	Journal of Fixed Income	626	A	1991	21%	0.6	402	1.17%
26	Mathematical Finance	501	A	1991	96%	5.1	515	1.50%
27	International Review of Economics & Finance	392	A	1992	80%	3.1	1358	3.96%
28	International Review of Financial Analysis	394	A	1992	87%	3.8	1241	3.62%
29	Corporate Governance	275	A	1993	81%	3.3	759	2.22%
30	Journal of Derivatives	625	A	1993	31%	0.9	357	1.04%

31	Journal of Risk & Insurance	465	A	1993	85%	3.7	716	2.09%
32	Pacific-Basin Finance Journal	524	A	1993	76%	2.8	902	2.63%
33	Journal of Corporate Finance	764	A*	1994	76%	2.8	1381	4.03%
34	European Journal of Finance	186	A	1995	93%	5.0	872	2.55%
35	European Financial Management	322	A	1995	73%	2.0	313	0.91%
36	Finance and Stochastics	333	A	1996	83%	3.4	120	0.35%
37	Journal of Financial Markets	777	A*	1998	76%	2.7	88	0.26%
38	China Accounting and Finance Review	28	A	1999	NA	NA	38	0.11%
39	International Review of Finance	393	A	2000	53%	1.5	235	0.69%
40	Journal of Behavioral Finance	413	A	2000	47%	1.3	397	1.16%
41	Journal of World Investment & Trade	482	A	2000	53%	1.5	102	0.30%
42	Journal of Corporate Law Studies	104	A	2001	58%	1.1	149	0.43%
43	Quantitative Finance	547	A	2001	84%	2.3	1540	4.49%
44	Journal of Financial Econometrics	671	A*	2003	69%	2.2	7	0.02%
45	Finance Research Letters	51	A	2004	NA	NA	929	2.71%
46	Journal of Financial Stability	116	A	2004	96%	4.8	412	1.20%
47	Review of Finance	828	A*	2004	NA	NA	637	1.86%
48	International Journal of Managerial Finance	73	A	2005	65%	2.1	230	0.67%
49	Review of Corporate Finance Studies	826	A*	2012	NA	NA	49	0.14%
50	Journal of Behavioral and Experimental Finance	90	A	2014	69%	2.3	22	0.06%
51	Journal of Financial Reporting	115	A	2016	NA	NA	28	0.08%
52	Quarterly Journal of Finance	177	A	NA	52%	1.5	109	0.32%
						Total	**34261**	**100.00%**

Number of A Journals	39
Number of A* Journals	13

Panel B – Correlations

	Year of Inception	Scopus Percentile	Scopus CiteScore
Year of Inception	1		
Scopus Percentile	-0.11	1	
Scopus Cite Score	-0.26	0.76	1

Panel C – Statistics

	Year of Inception	Scopus Percentile	Scopus CiteScore	Number of Articles	% of Sample
Min	1945	21%	0.6	7	0.02%
Median	1991	76%	2.7	459	1.34%
Average	1988.31	73%	3.1	659	1.92%
Max	2016	99%	10.3	3799	11.09%
Std. Dev.	15.25	19%	2.0	656	1.92%

Panel D – Number of Topics in a Paper

Number of Topics in a Paper	1	2	3	4	5	Total
Number of Papers	24,952	8,632	677	0	0	34,261
%	72.83%	25.19%	1.98%	0.00%	0.00%	100.00%

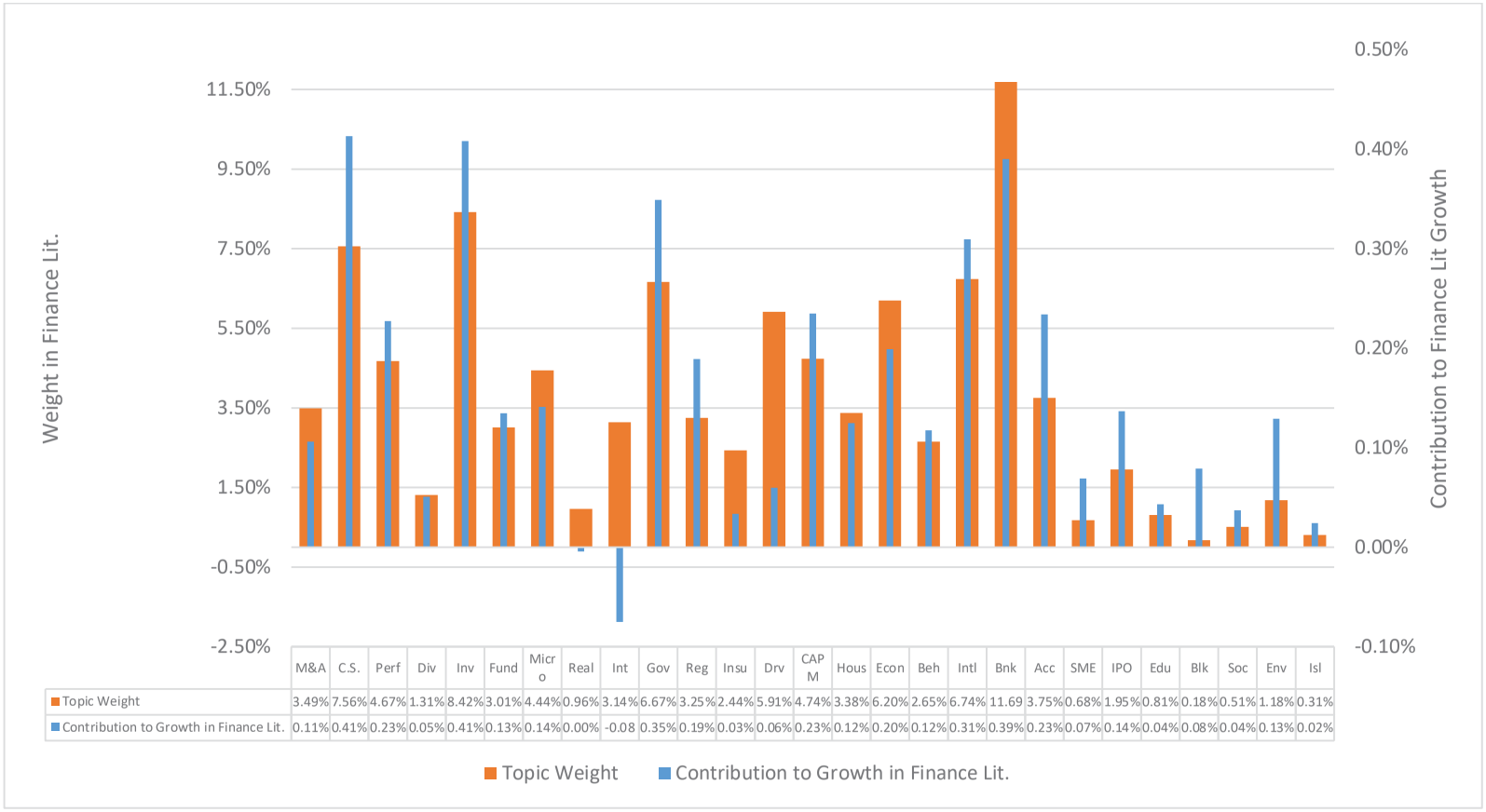
Table 3 – Historical Trends - Distribution (#) of Paper-topic Pairs Over Years (2000-2019)

The final sample is structured into a $34{,}261 \times 27$ matrix (see Table 2). In this matrix, the rows represent papers (denoted i were $i = 1, 2, \ldots 34{,}261$) and the columns represent topics (denoted j were $j = 1, 2, \ldots 27$). Each item is denoted $Score_{i,j}$ and represents the score of topic j in paper i. Scores are then converted into percentage of content as follows, $\%Content_{i,j} = \frac{Score_{i,j}}{\sum_{j=1}^{27} Score_{i,j}}$ were $\%Content_{i,j}$ is the percentage of the content of paper i that belongs to topic j. To increase the precision and accuracy we only consider a paper-topic pair if $\%Content$ is 25% or more. Further, we consider a paper-topic pair only if the title, keywords (subjects), and abstract include more than three key words related to the topic. We split the sample by years and report the raw number of paper-topic pairs for each topic in each year.

	All Topics	M&A and Diversification	Capital Structure	Firm Performance and Valuation	Dividends	Investment Strategies & Portfolio Management	Mutual and Hedge Funds	Market Microstructure	REIT and Real Estate	Interest Rates & Bonds	Governance, Agency, & Information Asymmetry	Government and Regulations	Insurance	Derivatives and Commodities	Capital Asset Pricing Models & Stock	Household/Personal Finance & Financial	Econometrics	Behavioral Finance	International Finance and Financial Crises	Banks and Financial Institutions	Financial Accounting	Small Business & Entrepreneurship	IPO, Stock Issuance & Listing and Delisting	Education, Pedagogy, Case Studies	Blockchain and Digital Currencies	Social Finance	Environment Finance	Islamic Finance
All Years (#)	**40229**	**1420**	**3062**	**1897**	**533**	**3408**	**1226**	**1810**	**378**	**1280**	**2680**	**1282**	**993**	**2424**	**1919**	**1357**	**2509**	**1056**	**2733**	**4774**	**1513**	**257**	**804**	**321**	**72**	**76**	**342**	**103**
All Years (%)	**100%**	**3.53%**	**7.61%**	**4.72%**	**1.32%**	**8.47%**	**3.05%**	**4.50%**	**0.94%**	**3.18%**	**6.66%**	**3.19%**	**2.47%**	**6.03%**	**4.77%**	**3.37%**	**6.24%**	**2.62%**	**6.79%**	**11.87%**	**3.76%**	**0.64%**	**2.00%**	**0.80%**	**0.18%**	**0.19%**	**0.85%**	**0.26%**
2000	1060	47	64	48	13	73	30	51	19	73	56	31	43	91	39	33	64	28	67	135	30	1	15	7	0	0	2	0
2001	1184	38	81	48	14	101	34	87	2	47	63	30	57	102	57	30	73	29	75	143	33	1	29	6	0	0	4	0
2002	1254	40	95	57	10	102	47	79	6	61	49	35	35	96	57	39	74	30	81	151	51	4	38	12	0	0	5	0
2003	1388	45	93	70	18	118	36	81	7	70	75	31	53	118	60	40	93	39	74	149	53	6	43	10	0	1	5	0
2004	1569	60	115	62	14	125	33	86	24	59	107	52	38	116	71	39	91	42	94	221	49	12	34	13	0	5	7	0
2005	1638	48	105	84	18	134	40	83	19	68	135	36	41	130	73	52	110	55	100	181	60	10	37	13	0	1	5	0
2006	1690	45	111	82	28	140	40	81	18	69	104	41	39	119	74	49	150	43	121	194	71	8	38	12	0	3	10	0
2007	1834	57	128	82	17	151	66	82	27	64	124	41	42	130	66	59	132	47	121	239	81	7	42	17	0	2	10	0
2008	1795	71	117	88	28	127	47	76	13	56	120	45	68	130	62	69	124	44	138	224	73	10	37	16	0	2	10	0
2009	1778	78	122	79	21	125	49	73	20	52	117	58	58	88	80	77	102	46	160	224	70	5	38	13	0	3	17	3
2010	1831	56	153	85	22	167	58	78	10	66	130	50	45	114	91	75	138	45	137	177	66	9	37	11	0	5	5	1
2011	2009	81	150	92	32	183	65	83	21	50	153	56	52	114	101	54	158	41	145	214	79	17	39	14	0	5	9	1
2012	2091	69	157	114	27	160	64	86	33	56	140	68	55	121	109	56	152	55	161	235	80	15	37	21	0	2	18	0
2013	2655	104	223	122	40	222	85	106	30	63	171	85	40	154	108	79	201	62	200	370	87	20	44	16	0	5	16	2
2014	2859	99	238	130	41	230	101	121	25	83	191	104	61	149	148	91	168	73	214	340	109	21	55	18	1	8	26	14

2015	2831	113	225	151	45	260	87	117	16	81	212	105	59	136	144	101	144	86	194	316	90	33	40	19	3	6	32	16
2016	2897	83	229	142	31	273	102	131	19	80	177	103	47	168	182	99	171	75	181	316	120	21	55	26	6	6	44	10
2017	2716	92	218	127	48	247	97	105	26	64	192	112	55	120	132	124	135	65	169	327	99	17	41	28	6	6	33	31
2018	2710	102	228	114	37	262	70	114	23	67	193	97	51	130	150	110	136	78	141	342	103	17	47	27	17	8	34	12
2019	2440	92	210	120	29	208	75	90	20	51	171	102	54	98	115	81	93	73	160	276	109	23	58	22	39	8	50	13
Average Annual Growth	**4.77%**	**5.99%**	**7.29%**	**6.37%**	**10.30%**	**6.84%**	**7.77%**	**4.46%**	**25.39%**	**-0.05%**	**7.84%**	**8.78%**	**4.80%**	**2.21%**	**7.86%**	**6.50%**	**3.93%**	**6.32%**	**5.76%**	**6.19%**	**8.39%**	**36.83%**	**10.20%**	**10.39%**	**153.19%**	**69.24%**	**34.56%**	**70.90%**
Contribution to Growth of Finance Lit.	**4.03%**	**0.11%**	**0.42%**	**0.22%**	**0.05%**	**0.40%**	**0.13%**	**0.15%**	**-0.01%**	**-0.08%**	**0.33%**	**0.18%**	**0.03%**	**0.06%**	**0.23%**	**0.12%**	**0.18%**	**0.12%**	**0.30%**	**0.39%**	**0.23%**	**0.06%**	**0.14%**	**0.04%**	**0.08%**	**0.02%**	**0.11%**	**0.03%**

Figure 1 – Topics Size and Contribution to Growth in Finance Literature



	M&A	C.S.	Perf	Div	Inv	Fund	Micro	Real	Int	Gov	Reg	Insu	Drv	CAPM	Hous	Econ	Beh	Intl	Bnk	Acc	SME	IPO	Edu	Blk	Soc	Env	Isl
Topic Weight	3.49%	7.56%	4.67%	1.31%	8.42%	3.01%	4.44%	0.96%	3.14%	6.67%	3.25%	2.44%	5.91%	4.74%	3.38%	6.20%	2.65%	6.74%	11.69	3.75%	0.68%	1.95%	0.81%	0.18%	0.51%	1.18%	0.31%
Contribution to Growth in Finance Lit.	0.11%	0.41%	0.23%	0.05%	0.41%	0.13%	0.14%	0.00%	-0.08	0.35%	0.19%	0.03%	0.06%	0.23%	0.12%	0.20%	0.12%	0.31%	0.39%	0.23%	0.07%	0.14%	0.04%	0.08%	0.04%	0.13%	0.02%

Figure 2 – Finance Literature Map – Interest in Topics in all Journals Over Time 2000-2019

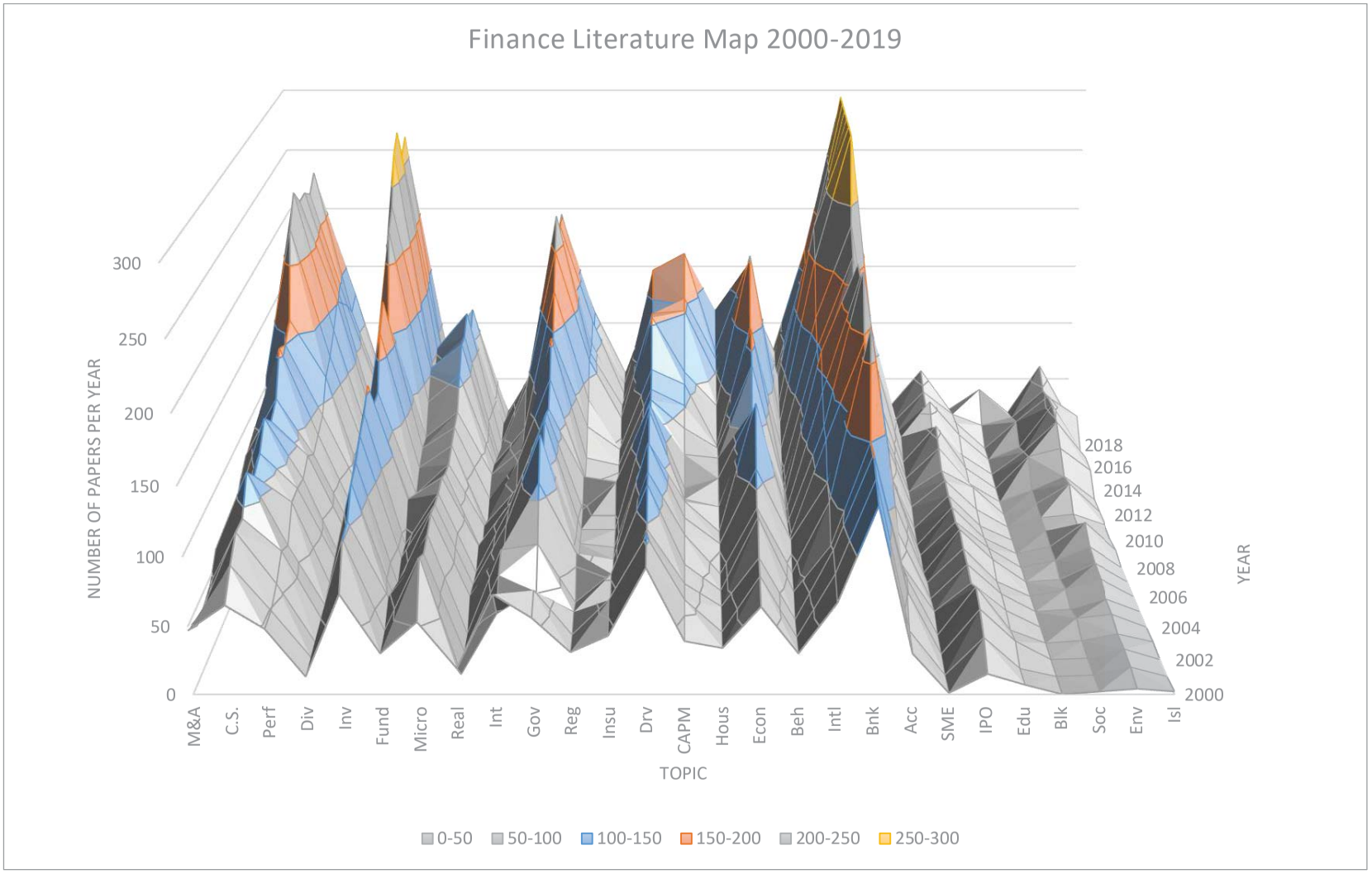


Figure 3 – Finance Literature Map – Frequency (#) of Journal-topic Pairs (2000-2019)

		M&A	C.S.	Perf	Div	Inv	Fund	Micro	Real	Int	Gov	Reg	Insu	Drv	CAPM	Hous	Econ	Beh	Intl	Bnk	Acc	SME	IPO	Edu	Blk	Soc	Env	Isl
	40229	1420	3062	1897	533	3408	1226	1810	378	1280	2680	1282	993	2424	1919	1357	2509	1056	2733	4774	1513	257	804	321	72	76	342	103
FAJ	824	17	46	70	15	176	82	33	2	38	8	18	10	31	59	50	28	16	30	16	60	1	1	8	0	0	9	0
JF	659	23	78	45	10	65	47	40	3	15	45	24	7	26	45	33	19	16	9	74	17	5	6	3	0	1	3	0
AF	1005	28	62	78	22	84	26	31	0	8	120	48	3	28	50	20	28	22	10	28	238	2	19	34	2	1	11	2
JFQA	477	32	43	20	11	57	39	33	2	11	33	6	4	27	25	8	27	10	11	41	13	2	19	0	0	0	3	0
RIW	679	4	12	28	1	10	2	3	3	0	4	43	6	9	11	217	118	30	38	15	64	3	1	31	0	3	23	0
FR	398	26	33	20	9	35	18	49	0	11	29	9	2	29	24	12	10	9	12	31	9	2	14	1	0	1	3	0
JMCB	2016	51	109	108	7	29	10	20	5	117	11	105	15	16	67	79	172	45	230	760	27	5	4	12	0	4	8	0
FM	175	23	24	18	7	20	2	5	1	6	13	2	0	5	8	1	6	2	1	11	3	0	16	1	0	0	0	0
JFE	2622	163	303	123	45	254	132	132	13	89	278	63	30	114	187	49	69	67	66	203	60	32	125	8	0	6	11	0
JBFA	1284	69	89	197	37	93	26	35	2	18	124	34	10	43	30	26	37	15	6	64	266	6	42	2	0	0	13	0
JPM	1030	29	61	76	9	181	137	34	31	40	6	22	13	25	111	40	85	17	49	15	30	1	4	8	0	0	6	0
JBF	4320	142	383	137	33	398	150	203	10	146	162	75	86	195	183	92	250	120	220	1109	63	33	78	9	3	5	31	4
JFR	565	33	44	30	14	65	32	71	4	22	38	7	6	27	32	5	20	9	11	50	9	4	28	2	0	0	2	0
JFM	1027	1	20	25	1	66	20	140	2	29	1	3	5	520	62	2	76	16	22	9	3	0	1	1	0	2	0	0
JIMF	1846	56	143	42	2	62	16	43	8	93	14	44	7	46	79	31	88	24	707	323	5	1	5	3	1	0	2	1
FAM	472	5	9	10	0	5	0	0	1	0	31	131	4	1	1	49	8	5	7	2	161	1	0	31	1	1	8	0
WBER	443	7	11	10	0	9	1	2	2	2	8	35	21	2	6	89	21	16	64	34	7	5	0	55	0	24	12	0
JFSR	496	18	34	3	4	14	19	11	2	9	13	15	26	4	3	19	9	6	11	259	1	6	2	0	0	1	3	4
JACF	620	22	74	75	9	13	11	4	2	13	84	32	11	36	7	20	10	6	22	42	41	5	22	12	1	2	44	0
JREFE	758	13	65	19	8	23	9	39	206	15	20	26	12	22	37	49	66	19	16	47	14	1	15	10	0	0	7	0
RFS	205	7	29	9	7	25	11	10	0	5	18	10	1	5	17	3	6	4	4	16	7	4	0	4	0	1	2	0
GFJ	291	22	11	11	8	34	11	21	4	13	14	8	0	11	25	6	7	6	46	14	5	1	5	0	0	0	5	3
JFI	367	8	51	11	0	8	12	18	0	5	21	8	7	9	7	6	3	5	9	158	3	4	12	1	0	0	1	0
JIFMI	1101	36	72	39	6	112	25	72	1	40	30	15	7	30	74	10	45	32	184	195	12	3	29	1	6	2	3	20
JFI	445	1	110	14	0	17	13	42	2	105	2	7	8	24	17	2	31	2	8	34	2	1	1	1	0	0	1	0
MF	542	0	17	19	5	92	5	17	1	26	6	0	12	115	31	15	162	4	4	8	1	0	0	2	0	0	0	0
IREF	1646	54	109	57	22	149	28	53	9	53	71	82	16	77	113	34	111	35	287	159	55	7	21	10	2	6	26	0
IRFA	1442	77	109	73	21	164	45	99	5	44	57	16	10	88	83	20	99	47	134	133	43	5	35	3	17	2	11	2
CG	920	19	41	20	11	1	6	1	1	4	577	21	1	6	1	29	15	9	22	34	49	16	9	1	0	2	23	1
JD	393	0	23	8	5	31	8	30	1	25	1	2	5	154	15	2	51	1	11	14	3	0	0	3	0	0	0	0
JRI	851	4	16	17	1	12	11	2	2	12	18	27	544	16	1	98	32	7	4	14	8	0	3	0	0	0	2	0
PBFJ	1064	39	69	57	24	120	32	77	5	15	105	30	13	41	61	17	29	34	54	87	28	9	49	4	0	2	7	56
JCF	1802	182	276	124	75	58	24	14	8	31	378	107	8	43	20	53	21	33	21	74	52	44	128	8	0	2	16	2
EJF	991	35	67	59	18	109	39	43	5	41	38	10	16	82	61	17	109	43	62	86	21	7	15	5	0	0	2	1
EFM	349	25	36	14	4	29	29	20	2	11	22	5	3	19	20	6	10	12	18	27	8	2	19	2	0	2	4	0
FS	170	2	8	3	3	18	0	4	0	17	8	0	5	37	10	4	45	3	1	1	0	0	0	1	0	0	0	0
FJM	116	3	1	6	3	16	2	42	1	0	0	0	0	6	14	0	5	10	2	1	0	0	4	0	0	0	0	0
CAFR	57	1	1	11	0	5	0	2	0	0	6	2	1	2	2	1	2	2	2	2	13	0	2	0	0	0	0	0
IRF	259	12	16	14	6	41	8	15	1	6	28	9	1	9	17	9	9	8	10	20	5	1	8	1	1	1	2	1
BF	468	9	7	43	2	88	24	21	2	2	10	6	0	10	11	26	25	130	7	4	18	1	7	8	1	0	6	0
JWIT	141	2	2	0	0	0	0	0	0	0	5	39	4	0	0	4	0	2	70	4	0	0	0	1	1	1	6	0
JCLS	177	3	9	4	6	0	3	0	0	0	54	40	3	8	0	8	1	2	11	20	1	0	3	0	0	0	1	0
QF	1736	10	60	37	11	318	38	127	12	57	13	7	18	290	127	19	421	36	51	49	6	5	4	15	0	1	4	0
JFEt	5	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0
FRL	1239	42	103	59	25	182	19	84	10	46	50	19	10	87	101	25	69	47	64	85	25	9	17	10	34	2	11	4
JFS	510	17	46	2	0	15	6	9	1	9	10	33	9	9	5	7	11	4	64	239	6	1	1	2	0	0	4	0
RF	714	22	68	27	11	80	27	38	0	26	36	24	9	34	50	31	13	32	26	111	14	9	16	5	1	0	3	1
IJMF	266	15	33	11	11	10	12	14	6	2	33	6	1	3	2	5	16	16	10	23	18	9	7	0	1	0	1	1
RCFS	63	3	13	1	2	1	0	1	0	0	4	3	1	1	0	3	4	2	2	15	1	3	2	0	0	1	0	0
JBEF	29	1	0	1	0	2	0	3	0	0	0	0	0	0	1	1	1	13	0	2	0	0	0	2	0	0	2	0
JFRp	36	0	1	6	0	2	0	0	0	0	7	2	0	0	0	1	2	1	0	0	14	0	0	0	0	0	0	0
QJF	118	6	15	6	2	10	9	3	0	3	16	2	2	2	5	4	4	4	3	12	4	1	5	0	0	0	0	0

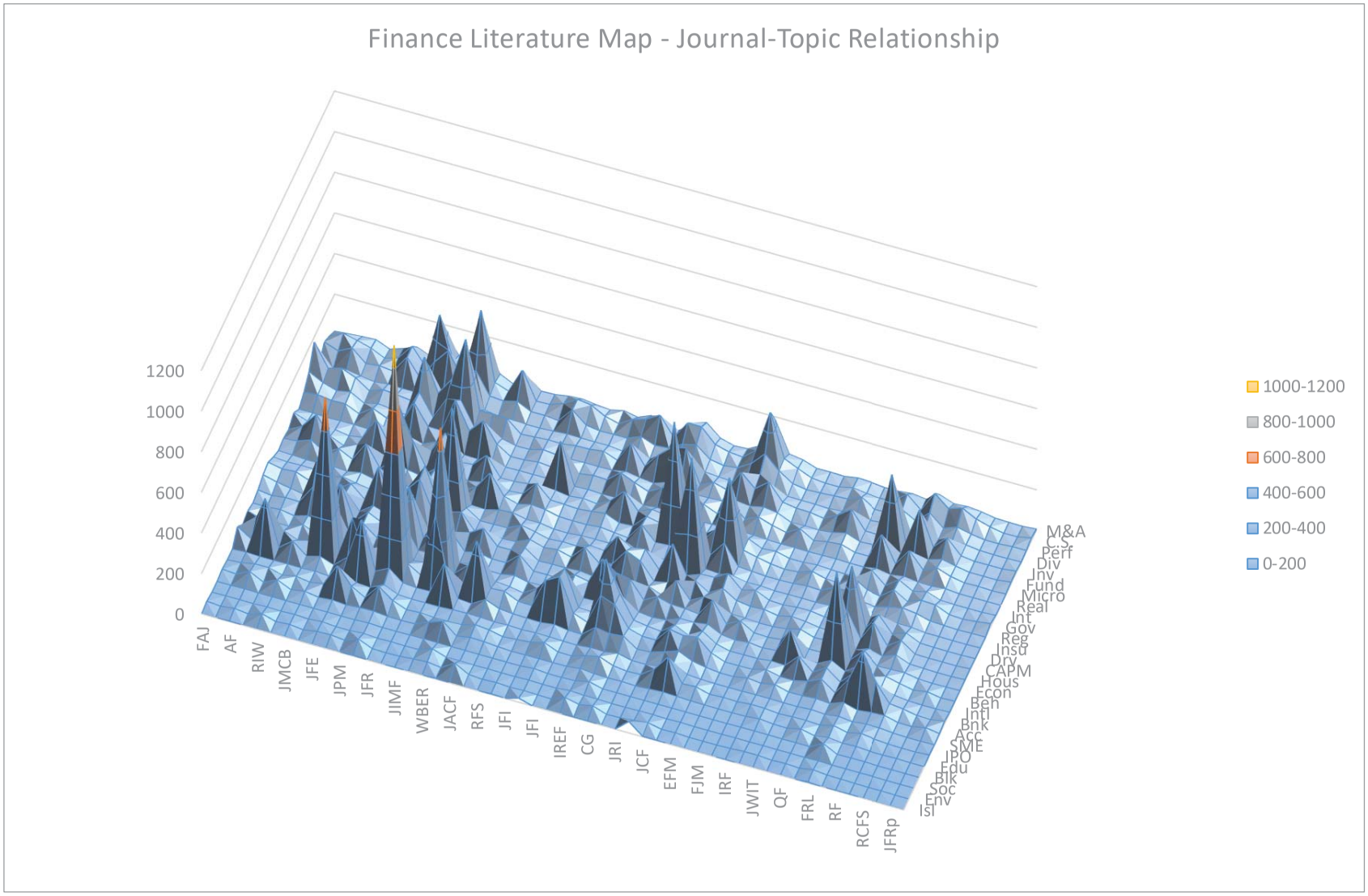

Finance Literature Map - Journal-Topic Relationship
1200
1000
800
600
400
200
0
FAJ
AF
RIW
JMCB
JFE
JPM
JFR
JIMF
WBER
JACF
RFS
JFI
JFI
IREF
CG
JRI
JCF
EFM
FJM
IRF
JWIT
QF
FRL
RF
RCFS
JFRp
M&A
CS
Perf
Div
Inv
Fund
Micro
Real
Int
Gov
Reg
Insu
Dry
CAPM
Hous
Econ
Beh
Intl
Bank
Acc
SME
IPO
Edu
Blk
Soc
Env
Isl
1000-1200
800-1000
600-800
400-600
200-400
0-200

Figure 4 – Finance Literature Map – Concentration (%) of Journal-topic Pairs (2000-2019)[10]

		M&A	C.S.	Perf	Div	Inv	Fund	Micro	Real	Int	Gov	Reg	Insu	Drv	CAPM	Hous	Econ	Beh	Intl	Bnk	Acc	SME	IPO	Edu	Blk	Soc	Env	Isl
		3.53	**7.61**	**4.72**	**1.32**	**8.47**	**3.05**	**4.50**	**0.94**	**3.18**	**6.66**	**3.19**	**2.47**	**6.03**	**4.77**	**3.37**	**6.24**	**2.62**	**6.79**	**11.87**	**3.76**	**0.64**	**2.00**	**0.80**	**0.18**	**0.19**	**0.85**	**0.26**
FAJ	100.00%	2.06	5.58	8.50	1.82	21.36	9.95	4.00	0.24	4.61	0.97	2.18	1.21	3.76	7.16	6.07	3.40	1.94	3.64	1.94	7.28	0.12	0.12	0.97	0.00	0.00	1.09	0.00
JF	100.00%	3.49	11.84	6.83	1.52	9.86	7.13	6.07	0.46	2.28	6.83	3.64	1.06	3.95	6.83	5.01	2.88	2.43	1.37	11.23	2.58	0.76	0.91	0.46	0.00	0.15	0.46	0.00
AF	100.00%	2.79	6.17	7.76	2.19	8.36	2.59	3.08	0.00	0.80	11.94	4.78	0.30	2.79	4.98	1.99	2.79	2.19	1.00	2.79	23.68	0.20	1.89	3.38	0.20	0.10	1.09	0.20
JFQA	100.00%	6.71	9.01	4.19	2.31	11.95	8.18	6.92	0.42	2.31	6.92	1.26	0.84	5.66	5.24	1.68	5.66	2.10	2.31	8.60	2.73	0.42	3.98	0.00	0.00	0.00	0.63	0.00
RIW	100.00%	0.59	1.77	4.12	0.15	1.47	0.29	0.44	0.44	0.00	0.59	6.33	0.88	1.33	1.62	31.96	17.38	4.42	5.60	2.21	9.43	0.44	0.15	4.57	0.00	0.44	3.39	0.00
FR	100.00%	6.53	8.29	5.03	2.26	8.79	4.52	12.31	0.00	2.76	7.29	2.26	0.50	7.29	6.03	3.02	2.51	2.26	3.02	7.79	2.26	0.50	3.52	0.25	0.00	0.25	0.75	0.00
JMCB	100.00%	2.53	5.41	5.36	0.35	1.44	0.50	0.99	0.25	5.80	0.55	5.21	0.74	0.79	3.32	3.92	8.53	2.23	11.41	37.70	1.34	0.25	0.20	0.60	0.00	0.20	0.40	0.00
FM	100.00%	13.14	13.71	10.29	4.00	11.43	1.14	2.86	0.57	3.43	7.43	1.14	0.00	2.86	4.57	0.57	3.43	1.14	0.57	6.29	1.71	0.00	9.14	0.57	0.00	0.00	0.00	0.00
JFE	100.00%	6.22	11.56	4.69	1.72	9.69	5.03	5.03	0.50	3.39	10.60	2.40	1.14	4.35	7.13	1.87	2.63	2.56	2.52	7.74	2.29	1.22	4.77	0.31	0.00	0.23	0.42	0.00
JBFA	100.00%	5.37	6.93	15.34	2.88	7.24	2.02	2.73	0.16	1.40	9.66	2.65	0.78	3.35	2.34	2.02	2.88	1.17	0.47	4.98	20.72	0.47	3.27	0.16	0.00	0.00	1.01	0.00
JPM	100.00%	2.82	5.92	7.38	0.87	17.57	13.30	3.30	3.01	3.88	0.58	2.14	1.26	2.43	10.78	3.88	8.25	1.65	4.76	1.46	2.91	0.10	0.39	0.78	0.00	0.00	0.58	0.00
JBF	100.00%	3.29	8.87	3.17	0.76	9.21	3.47	4.70	0.23	3.38	3.75	1.74	1.99	4.51	4.24	2.13	5.79	2.78	5.09	25.67	1.46	0.76	1.81	0.21	0.07	0.12	0.72	0.09
JFR	100.00%	5.84	7.79	5.31	2.48	11.50	5.66	12.57	0.71	3.89	6.73	1.24	1.06	4.78	5.66	0.88	3.54	1.59	1.95	8.85	1.59	0.71	4.96	0.35	0.00	0.00	0.35	0.00
JFM	100.00%	0.10	1.95	2.43	0.10	6.43	1.95	13.63	0.19	2.82	0.10	0.29	0.49	50.63	6.04	0.19	7.40	1.56	2.14	0.88	0.29	0.00	0.10	0.10	0.00	0.19	0.00	0.00
JIMF	100.00%	3.03	7.75	2.28	0.11	3.36	0.87	2.33	0.43	5.04	0.76	2.38	0.38	2.49	4.28	1.68	4.77	1.30	38.30	17.50	0.27	0.05	0.27	0.16	0.05	0.00	0.11	0.05
FAM	100.00%	1.06	1.91	2.12	0.00	1.06	0.00	0.00	0.21	0.00	6.57	27.75	0.85	0.21	0.21	10.38	1.69	1.06	1.48	0.42	34.11	0.21	0.00	6.57	0.21	0.21	1.69	0.00
WBER	100.00%	1.58	2.48	2.26	0.00	2.03	0.23	0.45	0.45	0.45	1.81	7.90	4.74	0.45	1.35	20.09	4.74	3.61	14.45	7.67	1.58	1.13	0.00	12.42	0.00	5.42	2.71	0.00
JFSR	100.00%	3.63	6.85	0.60	0.81	2.82	3.83	2.22	0.40	1.81	2.62	3.02	5.24	0.81	0.60	3.83	1.81	1.21	2.22	52.22	0.20	1.21	0.40	0.00	0.00	0.20	0.60	0.81
JACF	100.00%	3.55	11.94	12.10	1.45	2.10	1.77	0.65	0.32	2.10	13.55	5.16	1.77	5.81	1.13	3.23	1.61	0.97	3.55	6.77	6.61	0.81	3.55	1.94	0.16	0.32	7.10	0.00
JREFE	100.00%	1.72	8.58	2.51	1.06	3.03	1.19	5.15	27.18	1.98	2.64	3.43	1.58	2.90	4.88	6.46	8.71	2.51	2.11	6.20	1.85	0.13	1.98	1.32	0.00	0.00	0.92	0.00
RFS	100.00%	3.41	14.15	4.39	3.41	12.20	5.37	4.88	0.00	2.44	8.78	4.88	0.49	2.44	8.29	1.46	2.93	1.95	1.95	7.80	3.41	1.95	0.00	1.95	0.00	0.49	0.98	0.00
GFJ	100.00%	7.56	3.78	3.78	2.75	11.68	3.78	7.22	1.37	4.47	4.81	2.75	0.00	3.78	8.59	2.06	2.41	2.06	15.81	4.81	1.72	0.34	1.72	0.00	0.00	0.00	1.72	1.03
JFI	100.00%	2.18	13.90	3.00	0.00	2.18	3.27	4.90	0.00	1.36	5.72	2.18	1.91	2.45	1.91	1.63	0.82	1.36	2.45	43.05	0.82	1.09	3.27	0.27	0.00	0.00	0.27	0.00
JIFMI	100.00%	3.27	6.54	3.54	0.54	10.17	2.27	6.54	0.09	3.63	2.72	1.36	0.64	2.72	6.72	0.91	4.09	2.91	16.71	17.71	1.09	0.27	2.63	0.09	0.54	0.18	0.27	1.82
JFI	100.00%	0.22	24.72	3.15	0.00	3.82	2.92	9.44	0.45	23.60	0.45	1.57	1.80	5.39	3.82	0.45	6.97	0.45	1.80	7.64	0.45	0.22	0.22	0.22	0.00	0.00	0.22	0.00
MF	100.00%	0.00	3.14	3.51	0.92	16.97	0.92	3.14	0.18	4.80	1.11	0.00	2.21	21.22	5.72	2.77	29.89	0.74	0.74	1.48	0.18	0.00	0.00	0.37	0.00	0.00	0.00	0.00
IREF	100.00%	3.28	6.62	3.46	1.34	9.05	1.70	3.22	0.55	3.22	4.31	4.98	0.97	4.68	6.87	2.07	6.74	2.13	17.44	9.66	3.34	0.43	1.28	0.61	0.12	0.36	1.58	0.00
IRFA	100.00%	5.34	7.56	5.06	1.46	11.37	3.12	6.87	0.35	3.05	3.95	1.11	0.69	6.10	5.76	1.39	6.87	3.26	9.29	9.22	2.98	0.35	2.43	0.21	1.18	0.14	0.76	0.14
CG	100.00%	2.07	4.46	2.17	1.20	0.11	0.65	0.11	0.11	0.43	62.72	2.28	0.11	0.65	0.11	3.15	1.63	0.98	2.39	3.70	5.33	1.74	0.98	0.11	0.00	0.22	2.50	0.11
JD	100.00%	0.00	5.85	2.04	1.27	7.89	2.04	7.63	0.25	6.36	0.25	0.51	1.27	39.19	3.82	0.51	12.98	0.25	2.80	3.56	0.76	0.00	0.00	0.76	0.00	0.00	0.00	0.00
JRI	100.00%	0.47	1.88	2.00	0.12	1.41	1.29	0.24	0.24	1.41	2.12	3.17	63.92	1.88	0.12	11.52	3.76	0.82	0.47	1.65	0.94	0.00	0.35	0.00	0.00	0.00	0.24	0.00
PBFJ	100.00%	3.67	6.48	5.36	2.26	11.28	3.01	7.24	0.47	1.41	9.87	2.82	1.22	3.85	5.73	1.60	2.73	3.20	5.08	8.18	2.63	0.85	4.61	0.38	0.00	0.19	0.66	5.26
JCF	100.00%	10.10	15.32	6.88	4.16	3.22	1.33	0.78	0.44	1.72	20.98	5.94	0.44	2.39	1.11	2.94	1.17	1.83	1.17	4.11	2.89	2.44	7.10	0.44	0.00	0.11	0.89	0.11
EJF	100.00%	3.53	6.76	5.95	1.82	11.00	3.94	4.34	0.50	4.14	3.83	1.01	1.61	8.27	6.16	1.72	11.00	4.34	6.26	8.68	2.12	0.71	1.51	0.50	0.00	0.00	0.20	0.10
EFM	100.00%	7.16	10.32	4.01	1.15	8.31	8.31	5.73	0.57	3.15	6.30	1.43	0.86	5.44	5.73	1.72	2.87	3.44	5.16	7.74	2.29	0.57	5.44	0.57	0.00	0.57	1.15	0.00
FS	100.00%	1.18	4.71	1.76	1.76	10.59	0.00	2.35	0.00	10.00	4.71	0.00	2.94	21.76	5.88	2.35	26.47	1.76	0.59	0.59	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00
FJM	100.00%	2.59	0.86	5.17	2.59	13.79	1.72	36.21	0.86	0.00	0.00	0.00	0.00	5.17	12.07	0.00	4.31	8.62	1.72	0.86	0.00	0.00	3.45	0.00	0.00	0.00	0.00	0.00
CAFR	100.00%	1.75	1.75	19.30	0.00	8.77	0.00	3.51	0.00	0.00	10.53	3.51	1.75	3.51	3.51	1.75	3.51	3.51	3.51	3.51	22.81	0.00	3.51	0.00	0.00	0.00	0.00	0.00
IRF	100.00%	4.63	6.18	5.41	2.32	15.83	3.09	5.79	0.39	2.32	10.81	3.47	0.39	3.47	6.56	3.47	3.47	3.09	3.86	7.72	1.93	0.39	3.09	0.39	0.39	0.39	0.77	0.39
BF	100.00%	1.92	1.50	9.19	0.43	18.80	5.13	4.49	0.43	0.43	2.14	1.28	0.00	2.14	2.35	5.56	5.34	27.78	1.50	0.85	3.85	0.21	1.50	1.71	0.21	0.00	1.28	0.00
JWIT	100.00%	1.42	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55	27.66	2.84	0.00	0.00	2.84	0.00	1.42	49.65	2.84	0.00	0.00	0.00	0.71	0.71	0.71	4.26	0.00
JCLS	100.00%	1.69	5.08	2.26	3.39	0.00	1.69	0.00	0.00	0.00	30.51	22.60	1.69	4.52	0.00	4.52	0.56	1.13	6.21	11.30	0.56	0.00	1.69	0.00	0.00	0.00	0.56	0.00
QF	100.00%	0.58	3.46	2.13	0.63	18.32	2.19	7.32	0.69	3.28	0.75	0.40	1.04	16.71	7.32	1.09	24.25	2.07	2.94	2.82	0.35	0.29	0.23	0.86	0.00	0.06	0.23	0.00
JFEt	100.00%	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FRL	100.00%	3.39	8.31	4.76	2.02	14.69	1.53	6.78	0.81	3.71	4.04	1.53	0.81	7.02	8.15	2.02	5.57	3.79	5.17	6.86	2.02	0.73	1.37	0.81	2.74	0.16	0.89	0.32
JFS	100.00%	3.33	9.02	0.39	0.00	2.94	1.18	1.76	0.20	1.76	1.96	6.47	1.76	1.76	0.98	1.37	2.16	0.78	12.55	46.86	1.18	0.20	0.20	0.39	0.00	0.00	0.78	0.00
RF	100.00%	3.08	9.52	3.78	1.54	11.20	3.78	5.32	0.00	3.64	5.04	3.36	1.26	4.76	7.00	4.34	1.82	4.48	3.64	15.55	1.96	1.26	2.24	0.70	0.14	0.00	0.42	0.14
IJMF	100.00%	5.64	12.41	4.14	4.14	3.76	4.51	5.26	2.26	0.75	12.41	2.26	0.38	1.13	0.75	1.88	6.02	6.02	3.76	8.65	6.77	3.38	2.63	0.00	0.38	0.00	0.38	0.38
RCFS	100.00%	4.76	20.63	1.59	3.17	1.59	0.00	1.59	0.00	0.00	6.35	4.76	1.59	1.59	0.00	4.76	6.35	3.17	3.17	23.81	1.59	4.76	3.17	0.00	0.00	1.59	0.00	0.00
JBEF	100.00%	3.45	0.00	3.45	0.00	6.90	0.00	10.34	0.00	0.00	0.00	0.00	0.00	0.00	3.45	3.45	3.45	44.83	0.00	6.90	0.00	0.00	0.00	6.90	0.00	0.00	6.90	0.00
JFRp	100.00%	0.00	2.78	16.67	0.00	5.56	0.00	0.00	0.00	0.00	19.44	5.56	0.00	0.00	0.00	2.78	5.56	2.78	0.00	0.00	38.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QJF	100.00%	5.08	12.71	5.08	1.69	8.47	7.63	2.54	0.00	2.54	13.56	1.69	1.69	1.69	4.24	3.39	3.39	3.39	2.54	10.17	3.39	0.85	4.24	0.00	0.00	0.00	0.00	0.00

[10] All numbers are in %. We subpress the % sign.

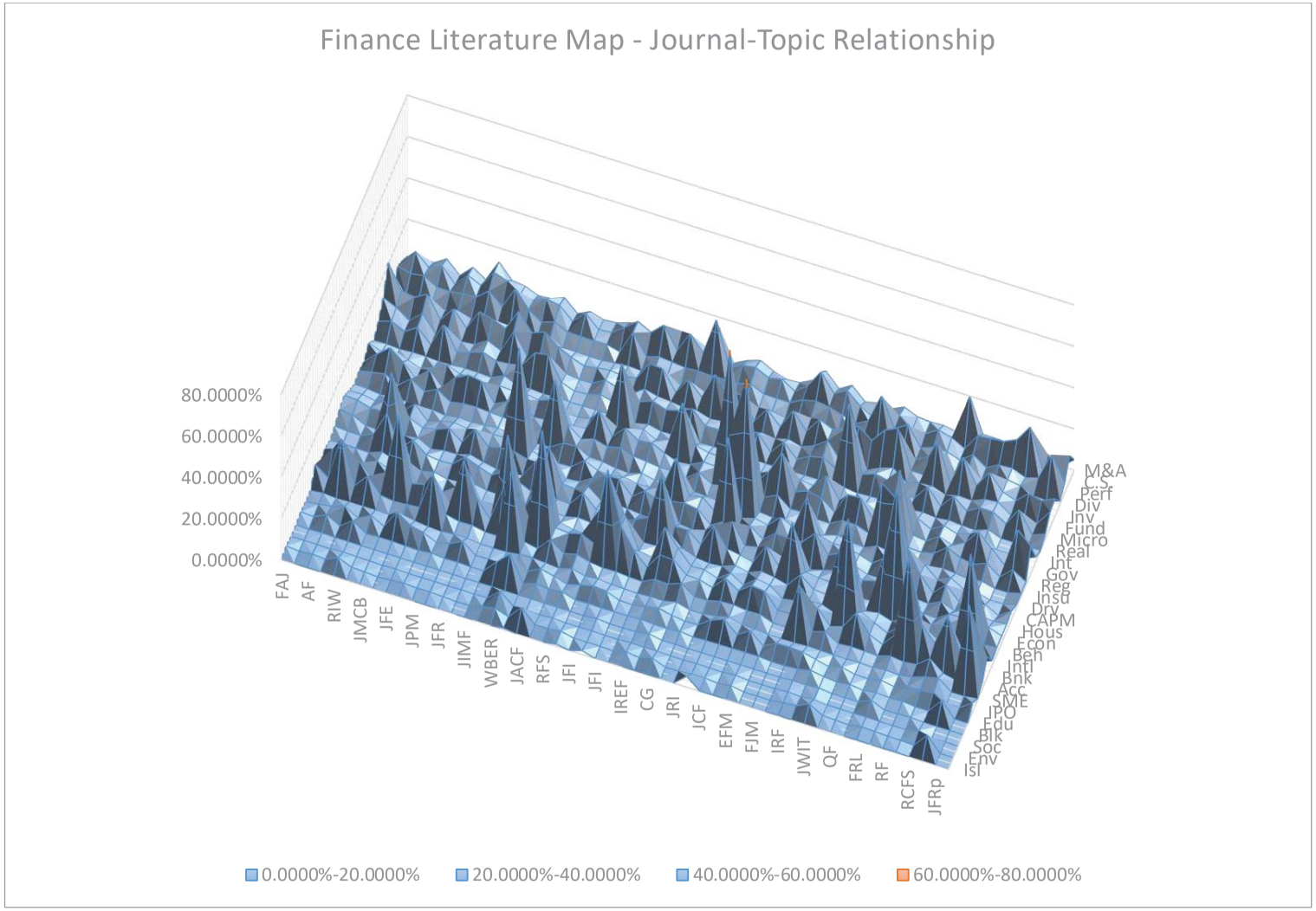

Finance Literature Map - Journal-Topic Relationship
80.0000%
60.0000%
40.0000%
20.0000%
0.0000%
FAJ
AF
RIW
JMCB
JFE
JPM
JFR
JIMF
WBER
JACF
RFS
JFI
JFI
IREF
CG
JRI
JCF
EFM
FJM
IRF
JWIT
QF
FRL
RF
RCFS
JFRp
M&A
C-S
Perf
Div
Inv
Fund
Micro
Real
Int
Gov
Reg
Insu
Pay
CAPM
Hous
Econ
Beh
Intl
Bnk
Acc
SME
IPO
Edu
Blk
Soc
Env
Isl
0.0000%-20.0000%
20.0000%-40.0000%
40.0000%-60.0000%
60.0000%-80.0000%

Table 4 – Concentration of Topics in Journals (2000-2019)

As in Table 2, journals are ordered by year of inception then alphabetically. The table shows the HHI index which represents the concentration of topics in each journal. We report the top five topics for each journal. The rest of findings are available upon request from authors.

	Journal	HHI	Topic 1	%	Topic 2	%	Topic 3	%	Topic 4	%	Topic 5	%
1	Financial Analysts Journal	900	Investment Strategies & Portfolio Management	21.36%	Mutual and Hedge Funds	9.95%	Firm Performance and Valuation	8.50%	Financial Accounting	7.28%	Capital Asset Pricing Models & Stock Behavior	7.16%
2	Journal of Finance	691	Capital Structure	11.84%	Banks and Financial Institutions	11.23%	Investment Strategies & Portfolio Management	9.86%	Mutual and Hedge Funds	7.13%	Firm Performance and Valuation	6.83%
3	Accounting & Finance	998	Financial Accounting	23.68%	Governance, Agency, & Information Asymmetry	11.94%	Investment Strategies & Portfolio Management	8.36%	Firm Performance and Valuation	7.76%	Capital Structure	6.17%
4	Journal of Financial and Quantitative Analysis	664	Investment Strategies & Portfolio Management	11.95%	Capital Structure	9.01%	Banks and Financial Institutions	8.60%	Mutual and Hedge Funds	8.18%	Market Microstructure	6.92%
5	Review of Income & Wealth	1569	Household/Personal Finance & Financial Planning	31.96%	Econometrics	17.38%	Financial Accounting	9.43%	Government and Regulations	6.33%	International Finance and Financial Crises	5.60%
6	Financial Review (US)	655	Market Microstructure	12.31%	Investment Strategies & Portfolio Management	8.79%	Capital Structure	8.29%	Banks and Financial Institutions	7.79%	Governance, Agency, & Information Asymmetry	7.29%
7	Journal of Money, Credit and Banking	1788	Banks and Financial Institutions	37.70%	International Finance and Financial Crises	11.41%	Econometrics	8.53%	Interest Rates & Bonds	5.80%	Capital Structure	5.41%
8	Financial Management	860	Capital Structure	13.71%	M&A and Diversification	13.14%	Investment Strategies & Portfolio Management	11.43%	Firm Performance and Valuation	10.29%	IPO, Stock Issuance & listing, and Delisting	9.14%
9	Journal of Financial Economics	656	Capital Structure	11.56%	Governance, Agency, & Information Asymmetry	10.60%	Investment Strategies & Portfolio Management	9.69%	Banks and Financial Institutions	7.74%	Capital Asset Pricing Models & Stock Behavior	7.13%

10	Journal of Business Finance & Accounting	984	Financial Accounting	20.72%	Firm Performance and Valuation	15.34%	Governance, Agency, & Information Asymmetry	9.66%	Investment Strategies & Portfolio Management	7.24%	Capital Structure	6.93%
11	Journal of Portfolio Management	868	Investment Strategies & Portfolio Management	17.57%	Mutual and Hedge Funds	13.30%	Capital Asset Pricing Models & Stock Behavior	10.78%	Econometrics	8.25%	Firm Performance and Valuation	7.38%
12	Journal of Banking and Finance	1027	Banks and Financial Institutions	25.67%	Investment Strategies & Portfolio Management	9.21%	Capital Structure	8.87%	Econometrics	5.79%	International Finance and Financial Crises	5.09%
13	Journal of Financial Research	696	Market Microstructure	12,57%	Investment Strategies & Portfolio Management	11.50%	Banks and Financial Institutions	8.85%	Capital Structure	7.79%	Governance, Agency, & Information Asymmetry	6.73%
14	Journal of Futures Markets	2912	Derivatives and Commodity	50.63%	Market Microstructure	13.63%	Econometrics	7.40%	Investment Strategies & Portfolio Management	6.43%	Capital Asset Pricing Models & Stock Behavior	6.04%
15	Journal of International Money & Finance	1949	International Finance and Financial Crises	38.3%	Banks and Financial Institutions	17.50%	Capital Structure	7.75%	Interest Rates & Bonds	5.04%	Econometrics	4.77%
16	Financial Accountability & Management	2148	Financial Accounting	34.11%	Government and Regulations	27.75%	Household/Personal Finance & Financial Planning	10.38%	Governance, Agency, & Information Asymmetry	6.57%	Governance, Agency, & Information Asymmetry	6.57%
17	World Bank Economics Review	1001	Household/Personal Finance & Financial Planning	20.09%	International Finance and Financial Crises	14.45%	Education, Pedagogy, Case Studies	12.42%	Government and Regulations	7.90%	Banks and Financial Institutions	7.67%
18	Journal of Financial Services Research	2809	Banks and Financial Institutions	52.22%	Capital Structure	6.85%	Insurance	5.24%	Mutual and Hedge Funds	3.83%	Mutual and Hedge Funds	3.83%
19	Journal of Applied Corporate Finance	748	Governance, Agency, & Information Asymmetry	13.55%	Firm Performance and Valuation	12.10%	Capital Structure	11.94%	Environment Finance	7.10%	Banks and Financial Institutions	6.77%
20	Journal of Real Estate Finance & Economics	1094	REIT and Real Estate	27.18%	Econometrics	8.71%	Capital Structure	8.58%	Household/Personal Finance & Financial Planning	6.46%	Banks and Financial Institutions	6.20%

21	The Review of Financial Studies	726	Capital Structure	14.15%	Investment Strategies & Portfolio Management	12.20%	Governance, Agency, & Information Asymmetry	8.78%	Capital Asset Pricing Models & Stock Behavior	8.29%	Banks and Financial Institutions	7.80%
22	Global Finance Journal	734	International Finance and Financial Crises	15.81%	Investment Strategies & Portfolio Management	11.68%	Capital Asset Pricing Models & Stock Behavior	8.59%	M&A and Diversification	7.56%	Market Microstructure	7.22%
23	Journal of Financial Intermediation	2176	Banks and Financial Institutions	43.05%	Capital Structure	13.90%	Governance, Agency, & Information Asymmetry	5.72%	Market Microstructure	4.90%	Mutual Microstructure	3.27%
24	Journal of International Financial Markets, Institutions & Money	924	Banks and Financial Institutions	17.71%	International Finance and Financial Crises	16.71%	Investment Strategies & Portfolio Management	10.17%	Capital Asset Pricing Models & Stock Behavior	6.72%	Capital Structure	6.54%
25	Journal of Fixed Income	1451	Capital Structure	24.72%	Interest Rates & Bonds	23.60%	Market Microstructure	9.44%	Capital Asset Pricing Models & Stock Behavior	7.64%	Econometrics	6.97%
26	Mathematical Finance	1378	Econometrics	29.89%	Derivatives and Commodity	21.22%	Investment Strategies & Portfolio Management	16.97%	Capital Asset Pricing Models & Stock Behavior	5.72%	Interest Rates & Bonds	4.80%
27	International Review of Economics & Finance	755	International Finance and Financial Crises	17.44%	Banks and Financial Institutions	9.66%	Investment Strategies & Portfolio Management	9.05%	Capital Asset Pricing Models & Stock Behavior	6.87%	Econometrics	6.74%
28	International Review of Financial Analysis	645	Investment Strategies & Portfolio Management	11.37%	International Finance and Financial Crises	9.29%	Banks and Financial Institutions	9.22%	Capital Structure	7.56%	Market Microstructure	6.87%
29	Corporate Governance	4042	Governance, Agency, & Information Asymmetry	62.72%	Financial Accounting	5.33%	Capital Structure	4.46%	Banks and Financial Institutions	3.70%	Household/Personal Finance & Financial Planning	3.15%
30	Journal of Derivatives	1948	Derivatives and Commodity	39.19%	Econometrics	12.98%	Investment Strategies & Portfolio Management	7.89%	Market Microstructure	7.63%	Interest Rates & Bonds	6.36%
31	Journal of Risk & Insurance	4269	Insurance	63.92%	Household/Personal Finance & Financial Planning	11.52%	Econometrics	3.76%	Government and Regulations	3.17%	Governance, Agency, & Information Asymmetry	2.12%

32	Pacific-Basin Finance Journal	605	Investment Strategies & Portfolio Management	11.28%	Governance, Agency, & Information Asymmetry	9.87%	Banks and Financial Institutions	8.18%	Market Microstructure	7.24%	Capital Structure	6.48%
33	Journal of Corporate Finance	997	Governance, Agency, & Information Asymmetry	20.98%	Capital Structure	15.32%	M&A and Diversification	10.10%	IPO, Stock Issuance & Listing and Delisting	7.10%	Firm Performance and Valuation	6.88%
34	European Journal of Finance	659	Investment Strategies & Portfolio Management	11.00%	Investment Strategies & Portfolio Management	11.oo%	Banks and Financial Institutions	8.68%	Derivatives and Commodity	8.27%	Capital Structure	6.76%
35	European Financial Management	608	Capital Stricture	10.32%	Investment Strategies & Portfolio Management	8.31%	Investment Strategies & Portfolio Management	8.31%	Banks and Financial Institutions	7.74%	M&A and Diversification on Capital	7.16%
36	Finance and Stochastics	1497	Econometrics	26.47%	Derivatives and Commodity	21.76%	Investment Strategies & Portfolio Management	10.59%	Interest Rates & Bonds	10.00%	Capital Asset Pricing Models & Stock Behavior	5.88%
37	Journal of Financial Markets	1827	Market Microstructure	36.21%	Investment Strategies & Portfolio Management	13.79%	Capital Asset Pricing Models & Stock Behavior	12.07%	Behavioral Finance	8.62%	Firm Performance and Valuation	5.17%
38	China Accounting and Finance Review	1203	Financial Accounting	22.81%	Firm Performance and Valuation	19.30%	Governance, Agency, & Information Asymmetry	10.53%	Investment Strategies & Portfolio Management	8.77%	Market Microstructure	3.51%
39	International Review of Finance	700	Investment Strategies & Portfolio Management	15.83%	Governance, Agency, & Information Asymmetry	10.81%	Banks and Financial Institutions	7.72%	Capital Asset Pricing Models & Stock Behavior	6.56%	Capital Structure	6.18%
40	Journal of Behavioral Finance	1363	Behavioral Finance	27.78%	Investment Strategies & Portfolio Management	18.80%	Firm Performance and Valuation	9.19%	Household/Personal Finance & Financial Planning	5.56%	Econometrics	5.34%
41	Journal of World Investment & Trade	3292	International Finance and Financial Crises	49.65%	Government and Regulations	27.66%	Environment Finance	4.26%	Governance, Agency, & Information Asymmetry	3.55%	Insurance	2.84%
42	Journal of Corporate Law Studies	1705	Governance, Agency, & Information Asymmetry	30.51%	Government and Regulations	22.60%	Banks and Financial Institutions	11.30%	International Finance and Financial Crises	6.21%	Capital Structure	5.08%

43	Quantitative Finance	1368	Econometrics	24.25%	Investment Strategies & Portfolio Management	18.32%	Derivatives and Commodity	16.71%	Market Microstructure	7.32%	Market Microstructure	7.32%
44	Journal of Financial Econometrics	4400	Econometrics	60.00%	M&A and Diversification	20.00%	Capital Asset Pricing Models & Stock Behavior	20.00%		0.00%		0.00%
45	Finance Research Letters	660	Investment Strategies & Portfolio Management	14.69%	Capital Structure	8.31%	Capital Asset Pricing Models & Stock Behavior	8.15%	Derivatives and Commodity	7.02%	Banks and Financial Institutions	6.86%
46	Journal of Financial Stability	2525	Banks and Financial Institutions	46.86%	International Finance and Financial Crises	12.55%	Capital Structure	9.02%	Government and Regulations	6.47%	M&A and Diversification	3.33%
47	Review of Finance	717	Banks and Financial Institutions	15.55%	Investment Strategies & Portfolio Management	11.20%	Capital Structure	9.52%	Capital Asset Pricing Models & Stock Behavior	7.00%	Market Microstructure	5.32%
48	International Journal of Managerial Finance	678	Capital Structure	12.41%	Capital Structure	12.41%	Banks and Financial Institutions	8.65%	Financial Accounting	6.77%	Econometrics	6.02%
49	Review of Corporate Finance Studies	1222	Banks and Financial Institutions	23.81%	Capital Structure	20.63%	Governance, Agency, & Information Asymmetry	6.35%	Governance, Agency, & Information Asymmetry	6.35%	M&A and Diversification	4.76%
50	Journal of Behavioral and Experimental Finance	2366	Behavioral Finance	44.83%	Market Microstructure	10.34%	Investment Strategies & Portfolio Management	6.90%	Investment Strategies & Portfolio Management	6.90%	Investment Strategies & Portfolio Management	6.90%
51	Journal of Financial Reporting	2284	Financial Accounting	38.89%	Governance, Agency, & Information Asymmetry	19.44%	Firm Performance and Valuation	16.67%	Investment Strategies & Portfolio Management	5.56%	Investment Strategies & Portfolio Management	5.56%
52	Quarterly Journal of Finance	744	Governance, Agency, & Information Asymmetry	13.56%	Capital Structure	12.71%	Banks and Financial Institutions	10.17%	Investment Strategies & Portfolio Management	8.47%	Mutual and Hedge Funds	7.63%

Table 5 – Journals and Topics (2000-2019)

This table shows where the highest concentration of topics (i.e., in what journal) is found.

	Topic	SD	Js	Journal 1	%	Journal 2	%	Journal 3	%	Journal 4	%	Journal 5	%
1	M&A and Diversification	3.46%	49	Journal of Financial Econometrics	20.00%	Financial Management	13.14%	Journal of Corporate Finance	10.10%	Global Finance Journal	7.56%	European Financial Management	7.16%
2	Capital Structure	5.06%	50	Journal of Fixed Income	24.72%	Review of Corporate Finance Studies	20.63%	Journal of Corporate Finance	15.3%	The Review of Financial Studies	14.15%	Journal of Financial Intermediation	13.90%
3	Firm Performance and Valuation	3.94%	50	China Accounting and Finance Review	19.30%	Journal of Financial Reporting	16.67%	Journal of Business Finance & Accounting	15.34%	Journal 0f Applied Corporate Finance	12.10%	Financial Management	10.29%
4	Dividends	1.22%	42	Journal of Corporate Finance	4.16%	International journal of Managerial Finance	4.14%	Financial Management	4.00%	The Review of Financial Studies	3.41%	Journal of Corporate Law Studies	3.39%
5	Investment Strategies & Portfolio Management	5.59%	49	Financial Analysts Journal	21.36%	Journal of Behavioral Finance	18.80%	Quantitative Finance	18.32%	Journal of Portfolio Management	17.57%	Mathematical Finance	16.97%
6	Mutual and Hedge Funds	2.84%	44	Journal of Portfolio Management	13.30%	Financial Analysts Journal	9.95%	European Financial Management	8.31%	Journal of Financial and Quantitative Analysis	8.18%	Quarterly Journal Finance	7.63%
7	Market Microstructure	5.58%	47	Journal of Financial Markets	36.21%	Journal of Futures Markets	13.63%	Journal of Financial Research	12.57%	Financial Review (US)	12.31%	Journal of Behavioral and Experimental Finance	10.34%
8	REIT and Real Estate	3.75%	38	Journal of Real Estate Finance & Economics	27.18%	Journal of Portfolio Markets	3.01%	International Journal of Managerial Finance	2.26%	Global Finance Journal	1.37%	Journal of Financial Markets	0.86%
9	Interest Rates & Bonds	3.56%	42	Journal of Fixed Income	23.60%	Finance and Stochastics	10.00%	Journal of Derivatives	6.36%	Journal of Money, Credit and Banking	5.80%	Journal of International Money and Finance	5.04%

10	Governance, Agency, & Information Asymmetry	9.89%	49	Corporate Governance	62.72%	Journal of Corporate Law Studies	30.51%	Journal of Corporate Finance	20.98%	Journal of Financial reporting	19.44%	Quarterly Journal Finance	13.56%
11	Government and Regulations	5.85%	47	Financial Accountability & Management	27.75%	Journal of World Investments & Trade	27.766%	Journal of Corporate Law Studies	22.60%	World Bank Economics Review	7.90%	Journal of Financial Stability	6.47%
12	Insurance	8.77%	45	Journal of Risk & Insurance	63.92%	Journal of Financial Services Research	5.24%	World Bank Economics Review	4.74%	Finance & Stochastics	2.94%	Journal of World Investment & Trade	2.84%
13	Derivatives and Commodity	9.15%	48	Journal of Futures Markets	50.63%	Journal of Derivatives	39.19%	Finance & Stochastics	21.76%	Mathematical Finance	21.22%	Quantitative Finance	16.71%
14	Capital Asset Pricing Models & Stock Behavior	3.67%	48	Journal of Financial Econometrics	20.00%	Journal of Financial Markets	12.07%	Journal of Portfolio Management	10.78%	Global Finance Journal	8.59%	The Review of Financial Studies	8.29%
15	Household/Personal Finance & Financial Planning	5.16%	50	Review of Income & Wealth	31.96%	World Bank Economics Review	20.09%	Journal of Risk & Insurance	11.52%	Financial Accountability & Management	10.38%	Journal of Real Estate Finance & Economics	6.46%
16	Econometrics	9.70%	51	Journal of Financial Econometrics	60.00%	Mathematical Finance	29.89%	Finance & Stochastics	26.47%	Quantitative Finance	24.25%	Review of Income & Wealth	17.38%
17	Behavioral Finance	6.97%	51	Journal of Behavioral and Experimental Finance	44.83%	Journal of Behavioral Finance	27.78%	Journal of Financial Markets	8.62%	International Journal of Managerial Finance	6.02%	Review of Finance	4.48%
18	International Finance and Financial Crises	8.92%	49	Journal of World Investments & Trade	49.65%	Journal of International Money & Finance	38.30%	International Review of Economics and Finance	17.44%	Journal of international Markets, Institutions and Money	16.71%	Global Finance Journal	15.81%
19	Banks and Financial Institutions	11.74%	50	Journal of Financial Services Research	52.22%	Journal of Financial Stability	46.86%	Journal of Financial Intermediation	43.05%	Journal of Monet, Credit and Banking	37.70%	Journal of banking and Finance	25.67%

20	Financial Accounting	8.26%	47	Journal of Financial Reporting	38.89%	Financial accountability & Management	34.11%	Accounting & Finance	23.68%	China Accounting and Finance review	22.81%	Journal of Business and Accounting	20.72%
21	Small Business and Entrepreneurship	0.89%	39	Review of Corporate Finance Studies	4.76%	International Journal of Managerial Finance	3.38%	Journal of Corporate Finance	2.44%	The Review of Financial Studies	1.95%	Corporate Governance	1.74%
22	IPO, Stock Issuance & Listing and Delisting	2.05%	42	Financial Management	9.14%	Journal of Corporate Finance	7.10%	European Financial Management	5.44%	Journal of Financial Research	4.96%	Journal of Financial Economics	4.77%
23	Education, Pedagogy, Case Studies	2.17%	40	World Bank Economics Review	12.42%	Journal of Behavioral and Experimental Finance	6.90%	Financial Accountability & Management	6.57%	Review of Income & Wealth	4.57%	Accounting & Finance	3.38%
24	Blockchain and Digital Currencies	0.43%	14	Finance Research letters	2.74%	International Review of Financial Analysis	1.18%	Journal of World Investment & Trade	0.71%	Journal of International Financial Markets, Institutions & Money	0.54%	International review of Finance	0.39%
25	Social Finance	0.78%	25	World Bank Economics Review	5.42%	Review of Corporate Finance Studies	1.59%	Journal of World Investment & Trade	0.71%	European Financial Management	0.57%	The Review of Financial Studies	0.49%
26	Environment Finance	1.49%	41	Journal of Applied Corporate Finance	7.10%	Journal of Behavioral and Experimental Finance	6.90%	Journal of World Investment & Trade	4.26%	Review of Income & wealth	3.39%	World Bank Economics Review	2.71%
27	Islamic Finance	0.78%	15	Pacific-Basin Finance Journal	5.26%	Journal of International Financial Markets, Institutions & Money	1.82%	Global Finance Journal	1.03%	Journal of Financial Services Research	0.81%	International Review of Finance	0.39%

Table 6 – Association between Topics

This Table shows the association between topics i.e., topics that are likely to be explored jointly in a single article. Mathematically, we compute the conditional probability of finding topic Y in papers that discuss topic X as $PrX|Y = \frac{\#\ of\ papers\ that\ discuss\ X\ and\ Y}{\#\ of\ papers\ that\ discuss\ Y}$. By construction, $PrX|Y$ ranges from 0 (no association) to 1 (perfect association). In Panel A we report the overall likelihoods of observing single, two, and three topics in the same article. In Panel B, we report the conditional probabilities $PrX|Y$ for pairs of topics. In the interest of space and clarity, we present the top five probabilities only. The rest of the results is available upon request from the authors.

Panel A – Multi-topic Papers

	All Topics	Single Topic	Two Topics	Three Topics	Single Topic	Two Topics	Three Topics	All Topics
2000	886	627	245	14	70.77%	27.65%	1.58%	100.00%
2001	1009	752	231	26	74.53%	22.89%	2.58%	100.00%
2002	1050	752	275	23	71.62%	26.19%	2.19%	100.00%
2003	1144	822	302	20	71.85%	26.40%	1.75%	100.00%
2004	1359	1018	320	21	74.91%	23.55%	1.55%	100.00%
2005	1393	1034	329	30	74.23%	23.62%	2.15%	100.00%
2006	1453	1067	364	22	73.43%	25.05%	1.51%	100.00%
2007	1549	1134	394	21	73.21%	25.44%	1.36%	100.00%
2008	1569	1182	358	29	75.33%	22.82%	1.85%	100.00%
2009	1592	1191	373	28	74.81%	23.43%	1.76%	100.00%
2010	1609	1216	370	23	75.57%	23.00%	1.43%	100.00%
2011	1740	1276	430	34	73.33%	24.71%	1.95%	100.00%
2012	1816	1333	461	22	73.40%	25.39%	1.21%	100.00%
2013	2305	1692	577	36	73.41%	25.03%	1.56%	100.00%
2014	2428	1749	629	50	72.03%	25.91%	2.06%	100.00%
2015	2398	1723	613	62	71.85%	25.56%	2.59%	100.00%
2016	2379	1680	631	68	70.62%	26.52%	2.86%	100.00%
2017	2313	1685	586	42	72.85%	25.34%	1.82%	100.00%
2018	2262	1603	604	55	70.87%	26.70%	2.43%	100.00%
2019	2007	1416	540	51	70.55%	26.91%	2.54%	100.00%
All Years	**34261**	**24952**	**8632**	**677**	**72.83%**	**25.19%**	**1.98%**	**100.00%**

Panel B – Conditional Probabilities

	Topic	Topic 1	Pr	Topic 2	Pr	Topic 3	Pr	Topic 4	Pr	Topic 5	Pr
1	M&A and Diversification	Governance, Agency, & Information Asymmetry	10.28%	Banks and Financial Institutions	8.87%	Capital Structure	4.51%	International Finance and Financial Crises	4.37%	Investment Strategies & Portfolio Management	3.59%
2	Capital Structure	Interest Rates & Bonds	10.78%	Banks and Financial Institutions	9.08%	Governance, Agency, & Information Asymmetry	5.62%	International Finance and Financial Crises	3.76%	Firm Performance and Valuation	2.97%
3	Firm Performance and Valuation	Financial Accounting	20.14%	Investment Strategies & Portfolio Management	7.49%	Governance, Agency, & Information Asymmetry	5.75%	Econometrics	5.01%	Capital Structure	4.80%
4	Dividends	Governance, Agency, & Information Asymmetry	13.32%	Financial Accounting	6.38%	Firm Performance and Valuation	5.25%	Capital Structure	4.13%	Investment Strategies & Portfolio Management	2.63%
5	Investment Strategies & Portfolio Management	Capital Asset Pricing Models & Stock Behavior	17.43%	Market Microstructure	11.83%	Econometrics	7.04%	Firm Performance and Valuation	4.17%	Mutual and Hedge Funds	3.37%
6	Mutual and Hedge Funds	Investment Strategies & Portfolio Management	9.38%	Capital Structure	2.69%	Household/Personal Finance & Financial Planning	2.61%	Derivatives and Commodity	2.12%	Governance, Agency, & Information Asymmetry	2.04%
7	Market Microstructure	Investment Strategies & Portfolio Management	22.27%	Capital Asset Pricing Models & Stock Behavior	17.46%	Derivatives and Commodity	7.79%	Econometrics	2.38%	Capital Structure	2.32%
8	REIT and Real Estate	Capital Structure	4.50%	Capital Structure	4.50%	Banks and Financial Institutions	2.91%	Firm Performance and Valuation	2.38%	Firm Performance and Valuation	2.38%
9	Interest Rates & Bonds	Capital Structure	25.78%	Econometrics	5.55%	Banks and Financial Institutions	5.16%	International Finance and Financial Crises	4.61%	Derivatives and Commodity	3.98%

10	Governance, Agency, & Information Asymmetry	Capital Structure	6.42%	M&A and Diversification	5.45%	Financial Accounting	4.70%	Firm Performance and Valuation	4.07%	Government and Regulations	4.03%
11	Government and Regulations	Banks and Financial Institutions	12.56%	Financial Accounting	10.92%	Governance, Agency, & Information Asymmetry	8.42%	International Finance and Financial Crises	5.23%	Household/Personal Finance & Financial Planning	5.15%
12	Insurance	Household/Personal Finance & Financial Planning	8.86%	Banks and Financial Institutions	6.75%	Government and Regulations	2.92%	Governance, Agency, & Information Asymmetry	2.72%	Investment Strategies & Portfolio Management	2.32%
13	Derivatives and Commodity	Econometrics	9.53%	Market Microstructure	5.82%	Investment Strategies & Portfolio Management	4.04%	Capital Asset Pricing Models & Stock Behavior	2.76%	Capital Asset Pricing Models & Stock Behavior	2.76%
14	Capital Asset Pricing Models & Stock Behavior	Investment Strategies & Portfolio Management	30.95%	Market Microstructure	16.47%	Econometrics	5.94%	International Finance and Financial Crises	4.22%	Derivatives and Commodity	3.49%
15	Household/Personal Finance & Financial Planning	Insurance	6.48%	Capital Structure	5.01%	Government and Regulations	4.86%	Government and Regulations	4.86%	Small Business and Entrepreneurship	4.57%
16	Econometrics	Investment Strategies & Portfolio Management	9.57%	Derivatives and Commodity	9.21%	International Finance and Financial Crises	6.58%	Capital Asset Pricing Models & Stock Behavior	4.54%	Banks and Financial Institutions	4.15%
17	Behavioral Finance	Banks and Financial Institutions	8.71%	Econometrics	7.95%	Investment Strategies & Portfolio Management	7.10%	Household/Personal Finance & Financial Planning	4.64%	International Finance and Financial Crises	4.26%
18	International Finance and Financial Crises	Banks and Financial Institutions	1.08%	Econometrics	0.54%	Capital Structure	0.38%	Capital Asset Pricing Models & Stock Behavior	0.27%	Government and Regulations	0.22%
19	Banks and Financial Institutions	International Finance and Financial Crises	6.89%	Capital Structure	5.82%	Government and Regulations	3.37%	M&A and Diversification	2.64%	Econometrics	2.18%
20	Financial Accounting	Firm Performance and Valuation	25.25%	Government and Regulations	9.25%	Governance, Agency, & Information Asymmetry	8.33%	Capital Structure	3.97%	Dividends	2.25%
21	Small Business and Entrepreneurship	Household/Personal Finance & Financial Planning	24.12%	Capital Structure	6.23%	Capital Structure	6.23%	IPO, Stock Issuance & Listing and Delisting	5.45%	Banks and Financial Institutions	5.06%

22	IPO, Stock Issuance & Listing and Delisting	Investment Strategies & Portfolio Management	5.10%	Investment Strategies & Portfolio Management	5.10%	Banks and Financial Institutions	4.48%	Capital Structure	3.73%	Firm Performance and Valuation	2.74%
23	Education, Pedagogy, Case Studies	Financial Accounting	9.66%	Household/Personal Finance & Financial Planning	7.79%	Econometrics	4.36%	Behavioral Finance	4.05%	Behavioral Finance	4.05%
24	Blockchain and Digital Currencies	Derivatives and Commodity	9.72%	Behavioral Finance	8.33%	Firm Performance and Valuation	2.78%	Firm Performance and Valuation	2.78%	Firm Performance and Valuation	2.78%
25	Social Finance	Banks and Financial Institutions	9.21%	Household/Personal Finance & Financial Planning	5.26%	Government and Regulations	3.95%	Government and Regulations	3.95%	Governance, Agency, & Information Asymmetry	2.63%
26	Environment Finance	Household/Personal Finance & Financial Planning	6.43%	Government and Regulations	5.26%	Capital Structure	4.39%	Investment Strategies & Portfolio Management	3.51%	Investment Strategies & Portfolio Management	3.51%
27	Islamic Finance	Investment Strategies & Portfolio Management	3.88%	Investment Strategies & Portfolio Management	3.88%	Mutual and Hedge Funds	2.91%	International Finance and Financial Crises	1.94%	Capital Structure	0.97%