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Experiments in Finance: A Survey of Historical Trends*

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Abstract

Experiments complement other methods in identifying causal relationships and measuring behavioral deviations from theoretical predictions. While the experimental method has long been central in many scientific disciplines, it was almost nonexistent in finance until the 1980s. To survey the development of experiments in finance, we compiled a comprehensive account of experimental studies published in the *Journal of Finance*, *Journal of Financial Economics*, *Review of Financial Studies*, *Review of Finance*, *Journal of Quantitative and Financial Analysis*, and *Journal of Banking and Finance*, and experimental finance studies published in the top 5 journals in economics. With this novel dataset, we identified historical trends in experimental finance. Since the first experiments were published in finance journals in the 1980s, especially in the last 20 years, the share of experimental publications in these journals has markedly increased. In this article, we report trends toward descriptive, individual decision, and field experiments.

JEL: B41, C90, G00, G41

Keywords: Experimental finance, laboratory experiments, field experiments, survey.

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1 Introduction

Although the experimental method has long been established and has been central in many scientific disciplines such as physics, chemistry, and medical science, it was almost nonexistent until the 1960s and 1970s in economics and until the 1980s in finance (see, e.g., Smith, 1982; Svorenčík, 2015). As a consequence, in 1985, the seminal introductory textbook of Samuelson and Nordhaus still disregarded experimental economics in stating that “[economists] ... cannot perform the controlled experiments of chemists or biologists because they cannot control other important factors” (Samuelson & Nordhaus, 1985, p. 8). Only one year earlier, the first experimental studies had appeared in a top finance journal. As an increasing number of experimental studies has been published in top economics journals (Card et al., 2011; Nikiforakis & Slonim, 2015), later editions of the textbook started acknowledging the advances in behavioral and experimental economics.¹

This episode shows the rapid growth of the study of human behavior in economic decision-making. In finance, the perception of the discipline as one that cannot (and does not need to) conduct controlled experiments to generate knowledge is similar or even more pronounced. One reason might be that finance is among the social science disciplines that has access to extremely rich data sets. For instance, bids, asks, prices, trading volumes, and many other variables of traded assets in international financial markets are easily available; thus, many researchers concluded that experiments are not needed. While this might explain the strong mathematical and especially empirical focus of finance since the 1950s,² experiments “allow us to control economic institutions, information, policies, and other important variables, both in the laboratory and in the field” and experiments “make it possible for us to observe and control variables that would not be observable in the field” (Economic Science Association, 2020).³

Obviously, one major advantage of theoretical models is that they provide if-then relations, thereby drawing clear explanations of behavior in a model framework. One major advantage of empirical

¹The 2009 edition of the textbook states that “behavioral economics joined the mainstream in 2001 and 2002 when Nobel Prizes were awarded for economic research in this area. George Akerlof (University of California at Berkeley) was cited for developing a better understanding of the role of asymmetric information and the market for ‘lemons.’ Daniel Kahneman (Princeton University) and Vernon L. Smith (George Mason University) received the prize for the analysis of human judgment and decision-making ... and the empirical testing of predictions from economic theory by experimental economists” (Samuelson & Nordhaus, 2009, p. 89).

²Early seminal mathematical contributions focused on portfolio theory (Markowitz, 1952), the capital structure irrelevance principle (Modigliani & Miller, 1958), and the CAPM (Sharpe, 1964; Lintner, 1965; Mossin, 1966). With respect to seminal papers that applied the empirical method, the literature is broad. Among the first studies that set a milestone for empirical finance research was that by Fama (1970) on the “Efficient Market Hypothesis.” This work spurred an entire branch of empirical research. The early studies can be considered as the origin of the field of behavioral finance, showing that market participants do not always behave rationally and that market prices can deviate from fundamentals substantially (e.g., Shiller, 1981). Moreover, the field of financial econometrics has benefited from the availability of new data sources and more finely grained data in the last decades. Among the early seminal contributions are the ARCH and GARCH models by Engle (1982) and Bollerslev (1986) (for a survey of early studies, see Engle, 2001).

³Among others, these non-observable variables in the field are the fundamental value of an asset, heterogeneous or asymmetric information that can easily be controlled for in the laboratory, or the incentive structure of market participants.

studies is the use of real-world data generated from the behavior of millions of market participants acting in their natural environments with high-stake incentives. From a behavioral perspective, theoretical models (also behavioral finance models) rest on assumptions of human behavior that either use a “representative agent” or at least a representative agent with behavioral biases.⁴ While empirical finance builds on the behavior and interactions of real financial market participants, this method suffers, in most cases, from the inability of causal inference. Even in case of studies that can, for example, depict events and can clearly identify pre- and post-effects, its implications have to be taken with caution (see, e.g., Corrado, 2011, for a survey on the event study literature). From an experimental perspective, these studies lack a clear “control” treatment or a counterfactual setting with a randomization procedure and thereby fail to account for the *ceteris paribus* behavior of the system (the market) without having the event in place.

Therefore, experiments in economics in general and finance in particular can contribute, first, in identifying causal relationships by randomly assigning a purposeful treatment or manipulation (Card et al., 2011).⁵ For example, these experimental contributions can center around the causal impacts of different presentation modes of price charts on investment behavior (e.g., Huber & Huber, 2019), rankings or tournaments on the risk taking behavior of finance professionals (e.g., Kirchler et al., 2018), or short selling and margin trading on price formation in asset markets (e.g., Haruvy & Noussair, 2006). Regarding the latter two aspects, i.e., the role of institutional and market design, experiments can contribute as a test bed for policy or institutional design choices (Plott, 1986). In an early seminal study, Smith et al. (1982) provided an example for this approach by investigating the impact of different market institutions, namely double auction and sealed bid-offer markets, on individual behavior and price formation.

Second, experiments in finance contribute to the measurement of behavioral deviations from theoretical predictions when bringing theoretical frameworks to the laboratory. In this study, for instance, a seminal line of literature is constituted by studies on asset pricing, such as those that tested the Capital Asset Pricing Model (CAPM) in the laboratory (e.g., Bossaerts & Plott, 2004; Bossaerts et al., 2007; also see Noussair & Tucker, 2013, for a survey on asset pricing experiments), and those on bubble formation and market (in)efficiency (e.g., Smith et al., 1988; also see Palan, 2013; Powell & Shestakova, 2016).

In this survey, we point out historical developments of experimental finance in the past decades. As with many other fields, no unique definition has been established for “experimental finance.” Rather, according to Noussair (2016, p. 1), “*Experimental finance is the design, implementation, and*

⁴Agent-based models, instead, relax this assumption by implementing heterogeneous agents (for a survey, see Hommes, 2006). While these models circumvent the problem of a representative agent framework, the behavioral assumptions still do not perfectly describe human behavior.

⁵In their popular science book on causal inference, Pearl & Mackenzie (2018) characterized the advantage of randomization as “sever[ing] every incoming link to the randomized variable, including the ones we don’t know about or cannot measure” (p. 142), eliminating any confounders.

analysis of synthetic settings, in which human subjects make decisions, for the purpose of answering one or more research questions related to finance.” According to a Wikipedia entry on experimental finance, “[*the*] goals of experimental finance are to understand human and market behavior in settings relevant to finance.”

We take a straightforward approach in investigating the role of *experiments in finance* as we focus on publications in the top 3 finance journals, namely *Journal of Finance (JF)*, *Journal of Financial Economics (JFE)*, and *Review of Financial Studies (RFS)*. However, we also extend our scope to three second-tier general finance journals such as the *Review of Finance (RF)*, *Journal of Quantitative and Financial Analysis (JFQA)*, and *Journal of Banking and Finance (JBF)*. We selected these top 6 finance journals according to their Eigenfactor scores as a valid measure for journal impact. In addition to experiments in finance journals, we also investigated experimental finance papers published in the top 5 journals in economics, as there is a strong tradition of seminal finance papers having been published in general-interest journals in economics (e.g., [Modigliani & Miller, 1958](#); [Grossman & Stiglitz, 1980](#); [Shiller, 1981](#)).

We detected several trends in experimental finance over the past decades. First, experiments in finance played the role of “unicorns” until 2000, as only a few experimental finance studies, mainly limited to market experiments, were published in the top finance and economics journals. Since the turn of the millennium, however, experiments in finance have gained momentum, as the share of experimental finance publications among all publications in the top finance journals has increased from approximately 0.3% to more than 1.5%. Second, since the 2000s, trends toward descriptive experiments rather than experiments motivated by a theoretical framework have been observed. Third, individual decision experiments have gained more popularity since the 2000s and are now the dominant “institutional” setting, clearly outnumbering market experiments in the journals we considered. Fourth, field experiments, either artefactual or framed field, with industry professionals or randomized control trials (RCTs) in the field, constitute the most recent trend with a surge in publications since the 2010s. Finally, while the fraction of experimental finance papers published in finance journals is still increasing, this trend is stagnating in the top economics journals. The latter corresponds to the declining trend of experimental publications in general in the top economics journals (see [Nikiforakis & Slonim, 2019](#); [Reuben et al., 2021](#)).

2 Methods

To survey the historical trends in experimental finance, we first considered experimental journal articles published in six general finance journals: *JF*, *JFE*, *RFS*, *RF*, *JFQA*, and *JBF*. We selected these six journals according to their Eigenfactor scores ([Bergstrom et al., 2008](#)) as published in Clarivate’s

2019 Journal Citation Report as a measure of journal impact.^{6,7} The first three journals (*JF*, *JFE*, and *RFS*) are generally considered the “top 3” journals in finance and will be referred to accordingly. Together with the next three journals (*RF*, *JFQA*, and *JBF*), we will also refer to them as the “top 6” journals in finance.

We used data from two main sources: IDEAS RePEc (Research Papers in Economics, ideas.repec.org) and data from the respective journal publishers. In the first step, we retrieved journal article meta-data from the IDEAS RePEc database. We applied the following search query to the six finance journals under consideration: *JF* (all years up to 2020), *JFE* (all years up to 2020), *RFS* (all years up to 2020), *RF* (all years up to 2020), *JFQA* (all years up to 2020), (*JBF*, all years up to 2020). Accordingly, we combed the RePEc search engine for papers with the following keywords in the title, abstract, or keywords, for each journal separately: “experiment” or “experiments” or “experimental” or “laboratory” or “field experiment” or “field experiments” for each of the six considered journals. We excluded search results with the keywords “natural experiment,” “quasi-experiment,” “counterfactual experimental,” “quasi-natural experiment,” or “quasi-experimental,” as they do not fall within our definition of experiments. We then recorded the associated RePEc handles for search results on IDEAS and used these RePEc handles to download metadata for each paper separately (see RePEc: [getting the metadata](#)).

While metadata on RePEc are provided by journal publishers, they are not complete. Thus, in the second step, we queried the respective search engine from journal publishers to complement our initial RePEc search results with the publishers’ records based on the same criteria outlined above: *JF* (1971-2020), *RFS* and *RF* (earliest record or 1971-2020), *JFE* and *JBF* (earliest record or 1971-2020), and *JFQA* (1971-2020).

As finance studies in general and experimental finance studies in particular have also appeared in economics journals, we additionally surveyed experimental papers published in the top 5 economics journals. As a starting point for that exercise, we took the data for the top 5 journals in economics from [Card et al. \(2011\)](#) for the period 1975-2010. For the period 2011-2020, we then used the search engine from the IDEAS RePEc, again applying the same procedure as described for the abovementioned finance journals. In each of the following journals, we searched for papers with the keywords “experiment” or “experiments” or “experimental” or “laboratory” or “field experiment” or “field ex-

⁶“The Eigenfactor score is a rating of the total importance of a specific journal. Journals are rated according to the number of incoming citations, with citations from highly ranked journals weighted to make a larger contribution to the Eigenfactor than those from poorly ranked journals. As a measure of importance, the Eigenfactor score scales with the total impact of a journal. Journals generating higher impact to the field tend to have larger Eigenfactor scores. The Eigenfactor approach is thought to be more robust than the Impact Factor metric, which counts purely incoming citations without considering the significance of those citations” (taken from https://journalinsights.elsevier.com/journals/0378-4266/article_influence; retrieved: April 25, 2022; see also <http://www.eigenfactor.org/about.php>).

⁷Note that we focus on general financial research journals; a few journals such as *Forbes*, the *Journal of Monetary Economics*, and the *Accounting Review* have high Eigenfactor scores in the relevant ISI category “Business, Finance” but do not fit the abovementioned criteria for inclusion in this survey.

periments” in the title, abstract, and keywords: the *American Economic Review* (AER, 2010-2020), *Review of Economic Studies* (RES, 2010-2020), *Quarterly Journal of Economics* (QJE, 2010-2020), *Journal of Political Economy* (JPE, 2010-2020), and *Econometrica* (EMA, 2010-2013, 2014-2020). We further complemented these search results with data from the respective journal publishers.⁸

As the final step, we reviewed each article identified by our somewhat coarse search queries and exclusion criteria outlined above. If applicable, we marked it as an experimental study and classified it according to the respective type of experiment. For the definition of what qualifies as an experiment, we relied on the terminology of Harrison & List (2004) by focusing on experiments ranging from pure laboratory experiments to natural field experiments. Inspired by Card et al. (2011) and Nikiforakis & Slonim (2015, 2019), we thus classified all the experiments as either a “laboratory” experiment or a “field” experiment, with the decisive separation device being either the subjects involved in a laboratory experiment (i.e., artefactual field experiments testing bankers’ behavior in a laboratory environment already count as a field experiment) or whether experimental “participants” know that they are participating in an experiment (this is no longer the case in natural field experiments). We also excluded papers identified as comments, replies, corrections, or announcements, and articles in the AER Papers and Proceedings issue. Similarly to Card et al. (2011), we included papers that reanalyzed data from previous experiments, even if only part of the paper is dedicated to the use of previous data (e.g., the asset market experiment of Eckel & Füllbrunn, 2015). When authors applied different experimental methods such as laboratory and field experiments in the same paper, we assigned the paper to both categories but with only half of the weight (i.e., 0.5 instead of 1 for each category).

Whereas it was relatively straightforward to select the experimental studies in the top finance journals, the definition of *experimental* finance studies in the top economics journals turned out to be more difficult. Finance, in general, can be seen as “*the application of economic principles to decision-making that involves the allocation of money under conditions of uncertainty*” (Fabozzi & Drake, 2009, p. 3), and “*the theory of finance is concerned with how individuals and firms allocate resources through time. In particular, it seeks to explain how solutions to the problems faced in allocating resources through time are facilitated by the existence of capital markets [...] and of firms [...]*” (Fama & Miller, 1972, p. 1). Moreover, finance can also be defined as “*the management of the flows of money through an organisation, whether it will be a corporation, school, or bank or government agency*” (Hampton, 1976). Following these definitions, we independently reviewed all experimental articles in the top 5 economics journals and subsumed studies under experimental finance in case they (i) involved decision-making related to the allocation of money under conditions of uncertainty (ii) and the allocation of resources through time, and (iii) focused on nonstandard laboratory subjects to cover the aspect that professionals in corporations and banks are concerned with financial decisions. Conse-

⁸We complemented the RePEc results with data from Wiley for *Econometrica* for the period 2011-2013. Cross-checking with the EconLit database revealed no substantial gaps in the RePEc search results for any of the other top 5 journals in economics.

quently, this classification implies that studies such as those by Bursztyn et al. (2019) or Feigenberg et al. (2013) are included. The first study focused on the market for credit cards by randomizing clients into treatments to test the impact of nudges, (moral) reminders, and incentives on repayment rates. The second study dealt with microfinance clients randomized into different repayment group treatments in which participants played a public good experiment weeks later. Moreover, this classification also accounts for including artefactual field experiments such as that by Noussair et al. (2014). The authors investigated higher-order risk attitudes of prudence and temperance in an experiment with a large representative sample of participants and correlated participants' experimental decisions to their demographic profiles and financial decisions outside the experiment.

Finally, we applied a finer categorization to all laboratory finance experiments. We first classified them as "descriptive" or theory-driven experiments. Under the former category, only studies that did not apply a formal mathematical model are subsumed. By contrast, in the latter category, all studies that used a formal model and thereby included a single model, competing models, and parameter estimations according to the definition of Card et al. (2011) are subsumed. Moreover, we classified papers according to the particular institution applied in the experiment: we separated individual decision experiments (i.e., no pay-off relevant strategic interaction among the participants) from games (i.e., strategic interaction among two or more players) and from markets (i.e., interactions of two or more traders in a market setting with endogenous price formation). Note that all data and codes are available via the following OSF repository: osf.io/cn3av.

3 Results

Observation 1: The absolute number of experimental finance publications in the top 3 (and top 6) finance journals has increased greatly since the 1980s.

As outlined in the top panel of Figure 1, the number of papers in the top 3 finance journals has increased from below 5 in the 5-year periods up until 1995 to 25 for the time span 2016-2020. The increase in the top 6 finance journals was even greater, with sizeable increases since 2000, resulting in 49 associated publications in the period 2016-2020. For all considered journals, except for the *Journal of Financial Economics*, the trends are indeed increasing, reaching a total of 9 to 15 experimental publications in each journal during 2016-2020 (for the respective development in each of the considered journals, see Figure A1 in the Appendix). Moreover, the *Journal of Financial and Quantitative Analysis* shares the trend of an increasing number of experimental papers, but on a much lower level than the four journals indicated above do. The major exception is the *Journal of Financial Economics*, with only five experimental publications in total since the establishment of the journal. One can speculate about the reasons for these developments; it appears that the journal scope and composition of the editorial boards might have impacted these trends (e.g., Cloos et al.,

2020), with the *Journal of Financial Economics* and the *Journal of Financial and Quantitative Analysis* still largely disregarding the experimental method.

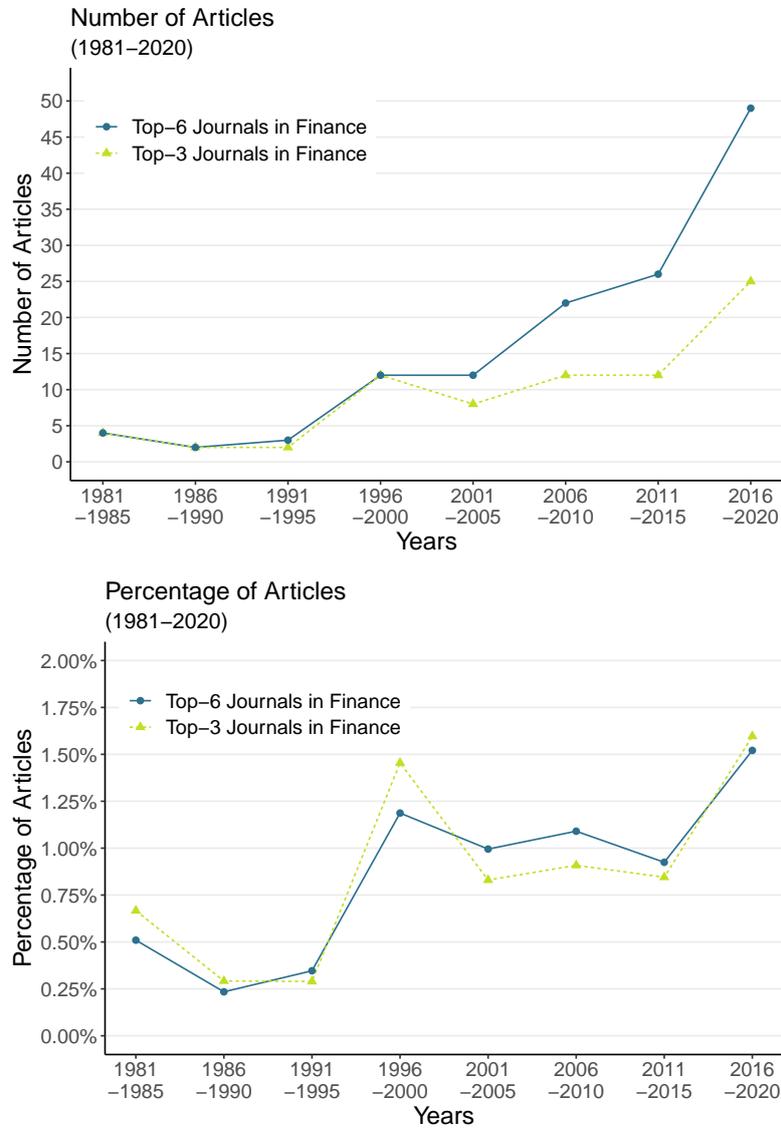


Figure 1: Number of experimental articles per year in finance journals.

Observation 2: The fraction of experimental finance publications among all papers in the top 3 (and top 6) finance journals has increased threefold since the 1980s.

The focus on the absolute number of papers in a journal can be misleading, as the total number of published papers within a journal might vary over time. Moreover, some journals such as the *RFS* (in 1988) or *RF* (in 1997) were established after our data collection period was started. In

the bottom panel of Figure 1, we account for this possibility and plot the fraction of experimental finance papers among all papers published in the top 3 and 6 finance journals. It becomes evident that the increasing trend prevailed but weakened, as the total number of papers published in those journals increased as well. This resulted in an increase in the fraction of experimental papers from less than 0.5% until the mid-1990s to approximately 1.5% for the period of 2016-2020. While the increasing trends are encouraging, the fraction is still very low, with empirical and theoretical papers accounting for the remaining 98.5% of papers published in the top journals in finance. For the top 5 economics journals, by contrast, Nikiforakis & Slonim (2019) reported between 5.0% (ECMT) and 9.4% (QJE) of experimental studies among all publications in the period 2015-2018.

Figure 2 provides more details by separating all experimental publications into (i) laboratory or field studies; (ii) descriptive studies or studies with a formal model; (iii) individual decisions, games, and market experiments; and finally, (iv) how the average length (in pages) and average number of authors have developed over time.

Observation 3: Both the absolute numbers of laboratory and field experiments in top 3 (and top 6) finance journals have increased, with the number of classical laboratory experiments being clearly highest.

The top left panel of Figure 2 shows that laboratory experiments are still the dominant type of experiments in experimental finance but that field experiments are gaining importance. Among others, two reasons account for this development. First, a relatively strong trend in experimental finance was observed until around 2010, when market experiments were conducted to answer various questions on information dissemination and aggregation (e.g., Copeland & Friedman, 1987), the role of market microstructure (e.g., Bloomfield & O'Hara, 1999), and the drivers and limiting factors of speculative price bubbles (e.g., Haruvy & Noussair, 2006). Second, artefactual and framed field experiments have evolved over time and more frequently investigated the behavior of finance professionals since the mid-2010s. Studies span across various questions, focusing on professionals' reactions to tournament or rank incentives (Kirchler et al., 2018), risk-taking behavior when primed with their private or professional identity (Cohn et al., 2017), proneness to bubble formation in laboratory asset markets (Weitzel et al., 2020), behavior when taking decisions on behalf of third parties (Kirchler et al., 2020), or proneness to myopic loss aversion (Haigh & List, 2005) or information cascades (Alevy et al., 2007). In addition, the trend of running natural field experiments and RCTs also expanded to finance during the 2010s. Here, studies deal with questions about the role of access to consumer credits (Karlan & Zinman, 2010) or gender differences in repayment rates among microcredit customers (Shahriar et al., 2020). Given the trend in experimental economics and the

surge in the number of field experiments published in the top economics journals in the 2010s, this trend in finance might get stronger in the upcoming years.⁹

Observation 4: “Descriptive” experiments, that is, experiments without a theoretical model, are dominant among laboratory experiments.

When turning to the question about trends in “descriptive” and theory-driven experiments, the top right panel in Figure 2 provides answers. As indicated, only studies that did not apply a formal mathematical model are subsumed under the former category. By contrast, in the latter category, all studies that used a formal model and thereby either included a single model, competing models, or parameter estimations are included (see Card et al., 2011). It becomes evident that experiments without explicitly testing a mathematically derived model account for around twice as many published studies in the top finance journals compared with experiments with a theoretical foundation (for the most recent period under consideration, 2016-2020). While the absolute number of papers in both categories increased substantially over time, the trends speak clearly in favor of descriptive experiments, as their growth rate was higher than that of theory-driven experiments. Note that both categories shared around the same number of experimental publications until the mid-1990s, albeit at a very low level.

Observation 5: While market experiments have long been the dominant type of laboratory experiment until 2010, individual decision experiments have gained popularity since the early 2000s.

The bottom left panel in Figure 2 provides important insights into the evolution of individual decision experiments (i.e., no pay-off relevant strategic interaction among participants), games (i.e., strategic interaction among two or more players), and markets (i.e., interactions of two or more traders in a market setting with endogenous price formation). It becomes evident that the roots of experimental finance lie in the experimental test of market interactions. Early studies investigated, for instance, questions about information revelation and aggregation in financial markets (e.g., Ang & Schwarz, 1985; Copeland & Friedman, 1991). The number of market experiments has increased over time, and the varied questions became more dispersed, investigating the role of myopic loss aversion for price formation in asset markets (e.g., Gneezy et al., 2003) and, for instance, the proneness of long-lived assets to form bubbles (e.g., Eckel & Füllbrunn, 2015; Kocher et al., 2019; Weitzel et al., 2020). However, the growth in experimental market experiments was clearly outperformed by the growth in individual decision experiments. While close to zero experiments of this type were reported in the top 6 finance journals until 2000, the number increased to close to 20 publications for the period 2016-2020, which is almost 60% higher than the number of market experiments. Herein,

⁹For instance, the number of papers reporting RCTs in microcredit markets has already been clearly higher in the top economics journals than in the top finance journals.

the portfolio of topics and research questions is broad, ranging from neuroscientific approaches (e.g., [Bruguier et al., 2010](#)) to the role of experience sampling in risk assessments (e.g., [Bradbury et al., 2015](#)). The role of games in experimental finance was relatively stable over time but never really took off during the last decades. Here, mainly corporate decision-making such as corporate takeovers was tested in the laboratory ([Kale & Noe, 1997](#); [Croson et al., 2004](#)).

Observation 6: No clear trends in article length and the number of coauthors were evident in the experimental finance papers in the top 3 (and top 6) journals over the past decades.

The bottom right panel in [Figure 2](#) depicts the development of the average paper length in terms of pages (left scale) and the average number of authors per paper (right scale) since the 1980s. For both variables, no clear pattern is visible, as the average length of experimental finance papers oscillates between 20 and 30 pages since the 1980s and the average number of authors per experimental finance paper has been between 2 and 2.8 over the decades. Potentially, the latter trend could become more pronounced over time, thereby showing the tendency that is already prevalent in other areas. For instance, the number of authors of papers published in the top 5 economics journals has clearly increased from fewer than 1.5 authors per paper to approximately 2.3 authors per paper since the 1970s ([Card & DellaVigna, 2013](#)).

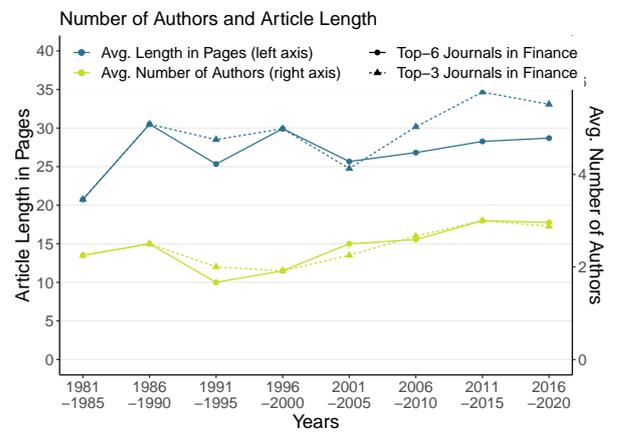
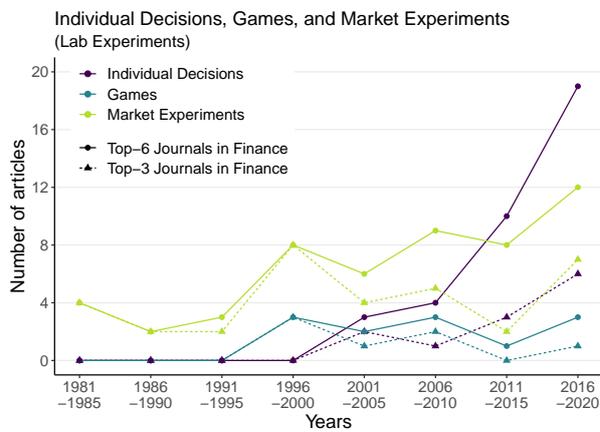
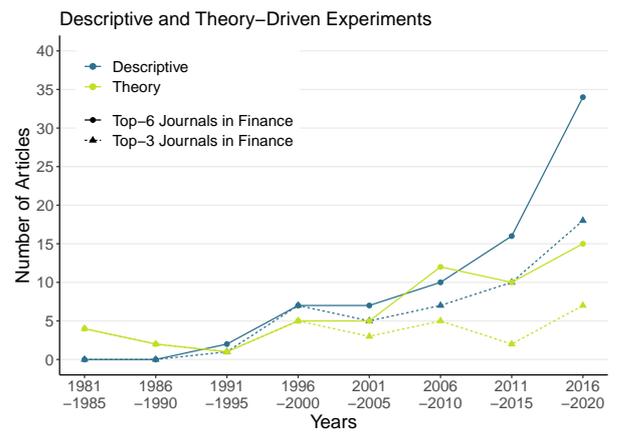
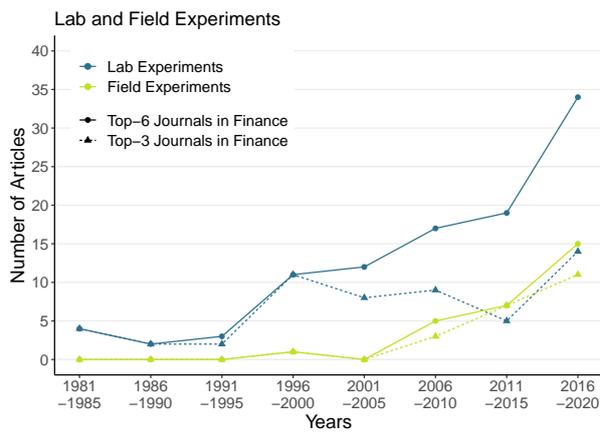


Figure 2: Different types and trends of experimental publications in finance journals.

Observation 7: The absolute number of experimental finance publications in the top 5 economics journals has increased over the last decades but is clearly smaller than the number of publications in the top 6 finance journals.

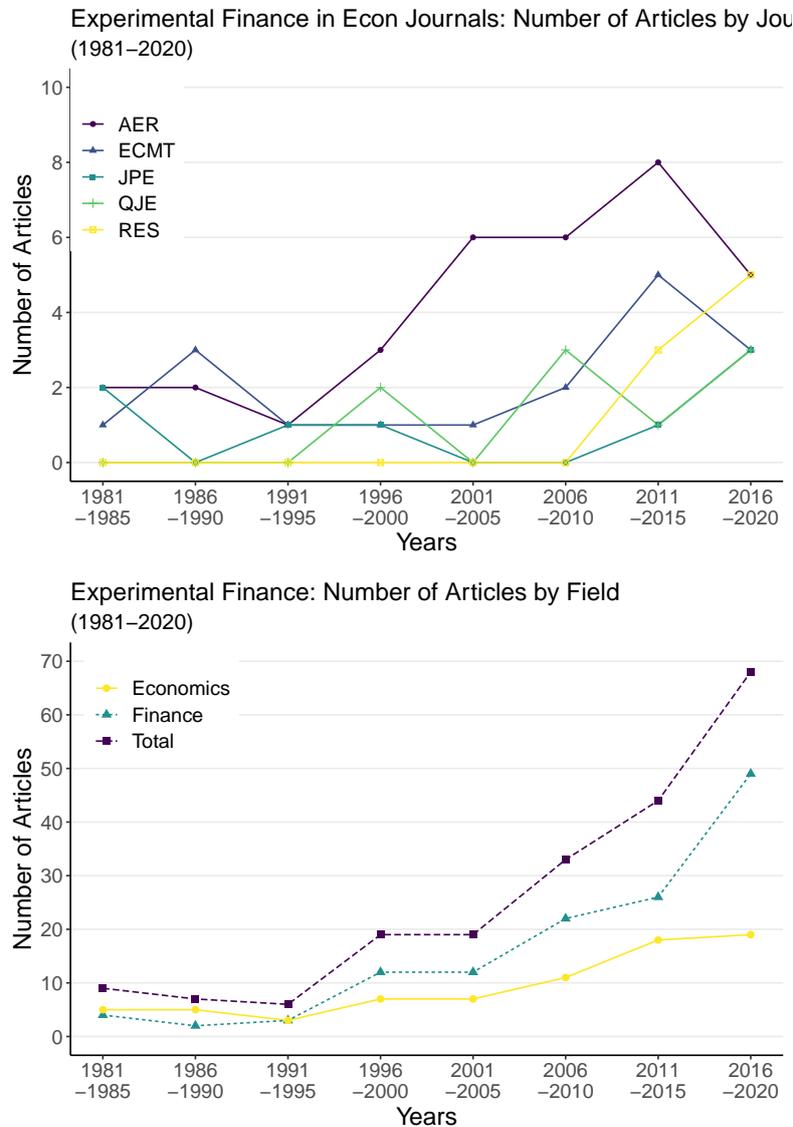


Figure 3: Number of experimental articles per year in economics and finance journals.

Experimental finance publications are not only limited to finance journals. Instead, seminal papers in experimental finance that investigated the efficiency of experimental asset markets, such as those by Plott & Sunder (1982), Plott & Sunder (1988), and Smith et al. (1988), have been published in a top 5 journal in economics. Therefore, Figure 3 depicts the development of papers in experimental finance that were published in the top 5 economics journals, as defined in the Methods section. The top panel in Figure 3 portrays the development for each economics journal separately. It is evident

that some journals such as the *Review of Economic Studies* have started publishing experimental finance papers only recently, while other journals have published at least a few papers in experimental finance during the last decades. The *American Economic Review*, however, is outstanding in terms of the absolute number of experimental finance publications since the 2000s.

Moreover, the bottom panel in Figure 3 contrasts the aggregate development of experimental finance publications in the top 6 finance journals (turquoise) and top 5 economics journals (yellow). While the trends in both areas were similar, albeit at a very low level, until 2000, the top finance journals published more experimental finance papers in the last 20 years, reaching nearly three times as many publications as those in the top 5 journals in economics. While the trend in the top 5 economics journals has appeared to be relatively flat since 2010, the stagnation or even decline in experimental publications is much more severe for experimental economics publications in general. [Nikiforakis & Slonim \(2019\)](#) showed that the number of experimental papers (across all subdisciplines) in the top 5 journals in economics has dropped by approximately 40% since 2010.

4 Conclusion

In this study, we aimed to shed light on the development of experimental finance publications in the top journals in finance and economics. While the investigation of human behavior in financial decisions might appear like an important and straightforward area, the absolute and relative number of publications in the top journals has been small in the last decades. Although it is difficult to speculate, this could be due to the heritage of finance and its focus on theoretical models and empirical studies. This implies that most editors and reviewers in the past decades were non-experimentalists, potentially showing a preference for non-experimental studies.

However, the trends since the 2000s show that experiments in finance have gained momentum, with a roughly fourfold increase in the share of experimental studies among all publications in the top finance journals. Moreover, since the 2000s, trends toward descriptive experiments (i.e., without a theoretical framework), individual decision experiments, and field experiments (i.e., artefactual or framed field experiments with industry professionals; for a comprehensive survey, see [Huber & König-Kersting, 2022](#)) have been evident. While the fraction of experimental papers published in the top finance journals is still increasing, this trend is stagnating in the top economics journals. In the next decade, it will be interesting to see whether experimental finance will face the same development as experimental economics, that is, a substantial decline in the number of experimental papers published in the top 5 journals in economics since 2010 ([Nikiforakis & Slonim, 2019](#)), or whether the upward trend can still continue.

In any case, the experimental method in finance has established itself as an important method starting from almost no publications in the 1980s and early 1990s. The increasing numbers of publica-

tions in the top journals and the strong growth in the community, as measured by the number of members of the Society for Experimental Finance,¹⁰ with an increase from zero members in 2012 to 472 members in 2022 (as of April 27, 2022), indicate that the experimental method has been established. This growth in the community, which is driven by many young scholars being interested in the experimental method and applying it to their research, could be an indication of a more prominent role of experimental finance in the upcoming years, as at least some young scholars will achieve tenure positions in international universities and thereby establish their own research groups dedicated to this method.

¹⁰For further information, visit <https://www.experimentalfinance.org/>.

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Online Appendix

A Additional Figures

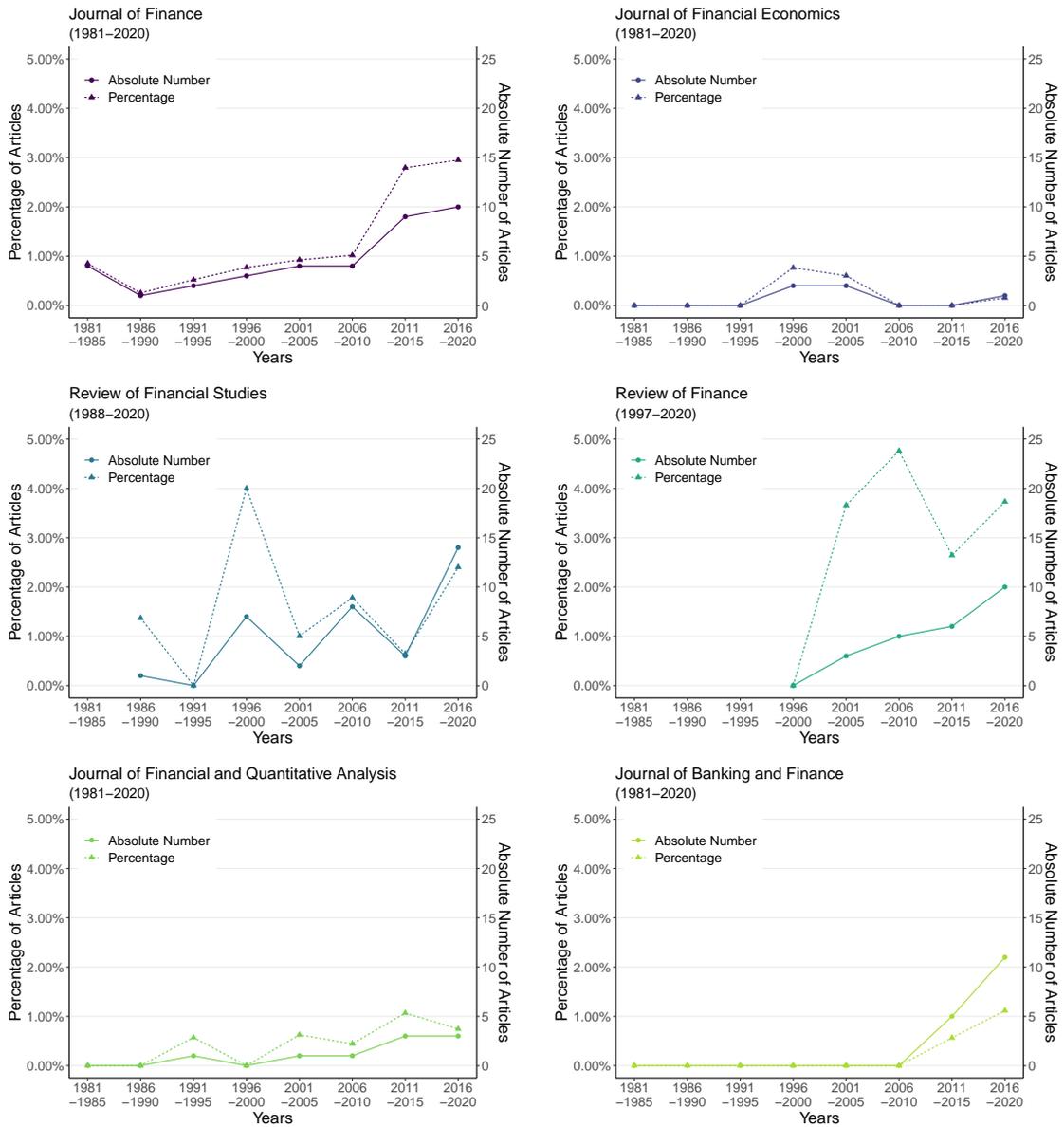


Figure A1: Number of experimental articles per year for each of the Top-6 finance journals.

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Christoph Huber, Michael Kirchler

Experiments in Finance – A Survey of Historical Trends

Abstract

Experiments complement other methods in identifying causal relationships and measuring behavioral deviations from theoretical predictions. While the experimental method has long been central in many scientific disciplines, it was almost nonexistent in finance until the 1980s. To survey the development of experiments in finance, we compiled a comprehensive account of experimental studies published in the *Journal of Finance*, *Journal of Financial Economics*, *Review of Financial Studies*, *Review of Finance*, *Journal of Quantitative and Financial Analysis*, and *Journal of Banking and Finance*, and experimental finance studies published in the top 5 journals in economics. With this novel dataset, we identified historical trends in experimental finance. Since the first experiments were published in finance journals in the 1980s, especially in the last 20 years, the share of experimental publications in these journals has markedly increased. In this article, we report trends toward descriptive, individual decision, and field experiments.

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