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Experiments in finance - A survey of historical trends

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Experiments in Finance – A Survey of Historical Trends*

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June 27, 2022

Abstract

Experiments can complement other methods in identifying causal relationships and in 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 compile 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*—as well as of experimental finance studies published in the Top 5 journals in economics. With this novel dataset, we identify historical trends in experimental finance. Since the first experiments were published in finance journals in the 1980s, and especially in the last 20 years, the share of experimental publications in these journals has increased strongly. We report trends towards descriptive experiments, individual decision experiments, 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 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 [Smith, 1982](#), [Svorenčik, 2015](#), for example). 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 one of the top finance journals. 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) run controlled experiments to generate knowledge would have been similar or even more pronounced. One reason might be that finance is among the disciplines in the social sciences that has access to extremely rich data sets. For instance, bids, asks, prices, trading volumes, and many other variables of traded assets on international financial markets are easily available; thus many researchers concluded that there is no need for experiments. 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 which “make it possible for us to observe and control variables that would not be observable in the field” ([Economic Science Association, 2020](#)).³

¹The 2009 edition of the textbook, for example, states “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, for instance, 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 applying the empirical method, the literature is very broad. Among the first studies setting a milestone for empirical finance research was [Fama \(1970\)](#) with his research on the “Efficient Market Hypothesis” (EMH). 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 market prices can deviate from fundamentals substantially (e.g., [Shiller, 1981](#)). Moreover, the field of financial econometrics has benefited particularly 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, for instance, [Engle \(1982\)](#) and [Bollerslev \(1986\)](#); (see [Engle, 2001](#), for a survey of early studies).

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.

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 studies is the use of real-world data generated from the behavior of millions of market participants acting in their natural environments with high-stakes 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 the 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 in finance in particular, can contribute, first, in identifying causal relationships by randomly assigning a purposeful treatment or manipulation ([Card et al., 2011](#)).⁵ To name a few examples, these experimental contributions can center around the causal impact of different presentation modes of price charts on investment behavior (e.g., [Huber & Huber, 2019](#)), the causal impact of rankings or tournaments on risk taking behavior among finance professionals (e.g., [Kirchler et al., 2018](#)), or the impact of short selling and margin trading on price formation in asset markets (e.g., [Haruvy & Noussair, 2006](#)). Particularly, regarding the latter two aspects—i.e., the role of institutional design and the design of markets—experiments can contribute by serving as a test-bed for policy or institutional design choices ([Plott, 1986](#)). In an early seminal study, [Smith et al. \(1982\)](#) provide an example for this approach by investigating the impact of different market institutions—i.e., double auction markets and sealed bid-offer markets—on individuals’ behavior and price formation.

Second, experiments in finance contribute in measuring behavioral deviations from theoretical predictions when bringing theoretical frameworks to the laboratory. Here, for instance, a seminal line of literature is constituted by the studies on asset pricing, such as those testing 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), as well as those on bubble formation and market (in)efficiency (e.g., [Smith et al., 1988](#); also see [Palan, 2013](#), [Powell & Shestakova, 2016](#)).

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

⁵In their popular science book on causal inference, [Pearl & Mackenzie](#), for example, characterize 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” ([Pearl & Mackenzie, 2018](#), p. 142), eliminating any confounders.

In this survey, we point out historical developments of experimental finance in the past decades. As with many other fields, there is no unique definition of “experimental finance”. Rather, according to [Noussair \(2016, p. 1\)](#), “*Experimental finance is the design, implementation, and analysis of synthetic settings, in which human subjects make decisions, for the purpose of answering one or more research questions related to finance.*” Following the 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—i.e., Journal of Finance, Journal of Financial Economics, Review of Financial Studies—but also extend our scope to three second-tier general finance journals such as the Review of Finance, the Journal of Quantitative and Financial Analysis, and the Journal of Banking and Finance. We selected these “Top 6” finance journals according to their Eigenfactor as a valid measure for journal impact. In addition to experiments in finance journals, we also investigate 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 detect several trends in experimental finance over the past decades. First, experiments in finance took on 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 around 0.3% to above 1.5%. Second, particularly since the 2000s there seem to have been trends towards descriptive experiments rather than experiments that are motivated by a theoretical framework. Third, individual decision experiments have gained more popularity since the 2000s and are the dominant “institutional” setting now, clearly outnumbering market experiments in the journals we consider. Fourth, field experiments—either artefactual or framed field experiments 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 growing, this trend is stagnating in the top economics journals. The latter corresponds to the trend of a decline in experimental publications in general in the top economics journals (see [Nikiforakis & Slonim, 2019](#); [Reuben et al., 2021](#)).

2 Method

To survey the historical trends in experimental finance, we first consider experimental journal articles published in six general finance journals: Journal of Finance (JF), Journal of Financial Economics (JFE), Review of Financial Studies (RFS), Review of Finance (RF), Journal of Quantitative

and Financial Analysis (JFQA), and Journal of Banking & Finance (JBF). We selected these six journals according to the Eigenfactor (Bergstrom et al., 2008) ranking as published in Clarivate's 2019 Journal Citation Report as a measure for journal impact.^{6,7} The first three (JF, JFE, and RFS) are generally considered the "Top 3" journals in finance and will be referred to accordingly; together with the next three (RF, JFQA, and JBF) we will also refer to them as the "Top 6" journals in finance.

We use data from two main sources: IDEAS RePEc (Research Papers in Economics, ideas.repec.org) as well as data from the respective journal publishers. In a first step, we retrieved journal article metadata from the IDEAS RePEc database. In particular, we applied the following search query for 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 comb the RePEc search engine for papers with the following keywords in 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. Note that 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 meta-data for each paper separately (see RePEc: [getting the metadata](#)).

While metadata on RePEc is provided by journal publishers, they are not complete. In a second step, we thus queried the respective search engine from journal publishers to complement our initial RePEc search results with publishers' records based on the same criteria as outlined above: JF (1971-2020), RFS and RF (earliest record or 1971-2020), JFE and JBF (earliest record or 1971-2020), 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 time period 1975-2010. For the time period 2011-2020, we then used the search engine from the IDEAS RePEc, again applying the same procedure as described for finance journals above. In particular, we searched for papers with the keywords 'exper-

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-interest journals in financial research; a few journals, such as Forbes, the Journal of Monetary Economics, and the Accounting Review, have a high Eigenfactor in the relevant ISI category 'Business, Finance' but do not fit the above criteria to be included in this survey.

iment’ or ‘experiments’ or ‘experimental’ or ‘laboratory’ or ‘field experiment’ or ‘field experiments’ in Title, Abstract, Keywords, for each of these journal separately: the American Economic Review (AER, 2010-2020), the Review of Economic Studies (RES, 2010-2020), the Quarterly Journal of Economics (QJE, 2010-2020), the Journal of Political Economy (JPE, 2010-2020), and Econometrica (EMA, 2010-2013, 2014-2020), and further complemented these search results with data from the respective journal publishers.⁸

As a final step, we went through each individual article identified by our somewhat coarse search queries and exclusion criteria outlined above, and 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 an experiment, we relied on the terminology of [Harrison & List \(2004\)](#) by focusing on the range of experiments from pure laboratory (lab) experiments to natural field experiments. Inspired by [Card et al. \(2011\)](#) and [Nikiforakis & Slonim \(2015, 2019\)](#), we thus classified all experiments in “laboratory” experiments and “field” experiments with the decisive separation device being either the subjects used in a laboratory (i.e., artefactual field experiments testing bankers’ behavior in lab environment already count as field experiment) or whether experimental “participants” know that they take part in an experiment (this is no longer the case in natural field experiments). We also exclude papers that can be identified as comments, replies, corrections, or announcements, as well as articles in the AER Papers and Proceedings issue. Similar to [Card et al. \(2011\)](#), we included papers that reanalyze data from previous experiments, even if only part of the paper is dedicated to using previous data (e.g., the asset market experiment of [Eckel & Füllbrunn, 2015](#)). In case authors apply different experimental methods in the same paper—e.g., a lab experiment and a field experiment—, we assign the paper to both categories, but with only half of the weight (i.e., we count it as 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 “[t]he 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 went through all experimental articles in the Top 5 economics journals and subsumed studies under experimental finance in case they involved decision-making related to (i) the allocation of money under conditions of

⁸In particular, we 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.

uncertainty, (ii) the allocation of resources through time, as well as (iii) studies that focus on non-standard lab subjects to cover the aspect that professionals in corporations and banks are concerned with financial decisions. Consequently, this classification implies that studies such as [Bursztyn et al. \(2019\)](#) or [Feigenberg et al. \(2013\)](#) are included. The first study focuses on the market for credit cards by randomizing clients into treatments testing the impact of nudges, (moral) reminders and incentives on repayment rates. The second study deals with microfinance clients that were 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 [Noussair et al. \(2014\)](#). The authors investigate higher order risk attitudes of prudence and temperance in an experiment with a large representative sample of participants and correlate participants' experimental decisions to their demographic profiles and their 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 do not apply a formal mathematical model are subsumed. In the latter category instead, all studies that use a formal model and thereby include—according to the definition of [Card et al. \(2011\)](#)—a single model, competing models, and parameter estimations are subsumed. Moreover, we classified papers according to the institution experimental participants acted in. Therefore, we separated individual decision experiments (i.e., no pay-off relevant strategic interaction among 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 (6) finance journals has increased strongly 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 five in the five-year periods up until 1995 to 25 for the time span 2016-2020. The increase among the Top 6 finance journals is even stronger with a particularly sizeable increase 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 rising, totalling 9 to 15 experimental publications in each journal during 2016-2020 (see Figure A1 in the Appendix, for the respective development in each of the considered journals). 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. 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 the composition of the editorial boards might have an impact on these trends with the Journal of Financial Economics and the Journal of Financial and Quantitative Analysis still largely disregarding the experimental method (e.g., Cloos et al., 2020).

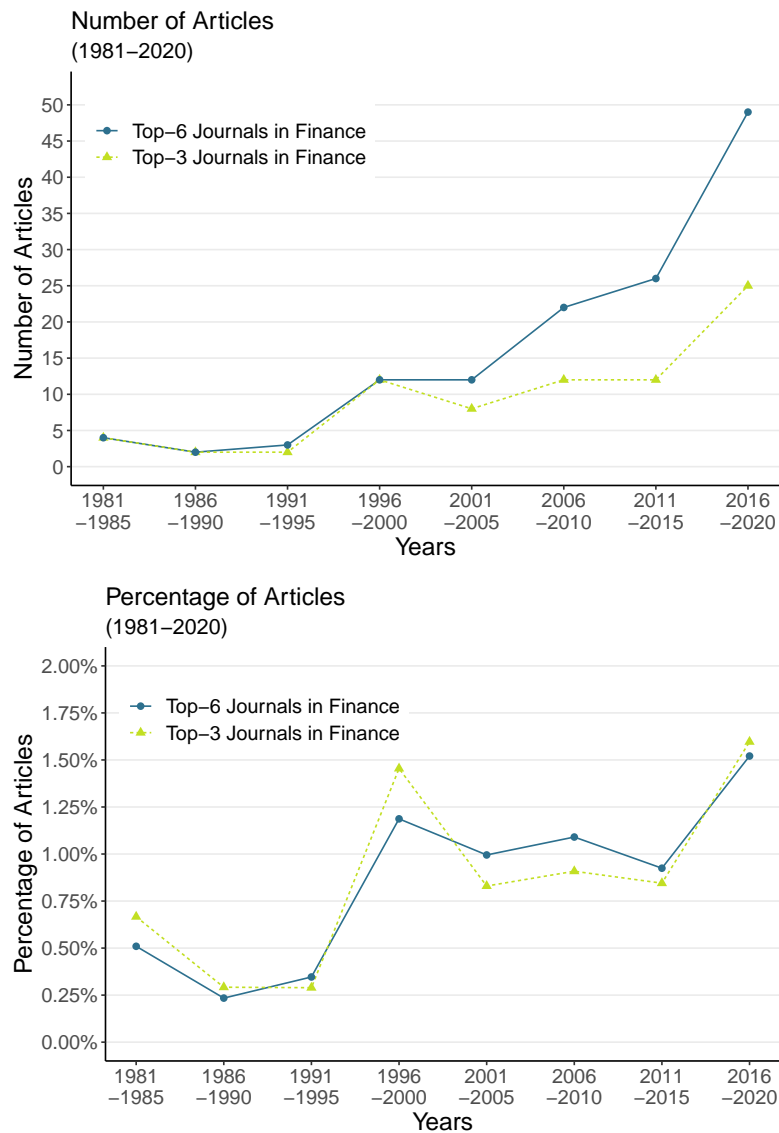


Figure 1: Number of experimental articles per year in finance journals.

Observation 2: The fraction of experimental finance publications among all papers in the Top 3 (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 like the *Review of Financial Studies* (in 1988) or the *Review of Finance* (in 1997) were established after our data collection period has 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 Top 6 finance journals. It becomes evident that the rising trend prevails, but gets weaker, as the total number of papers published in those journals has increased as well. This results in an increase in the fraction of experimental papers from below 0.5% until the mid 1990s to around 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 \(2019\)](#) report between 5.0% (ECMT) and 9.4% (QJE) of experimental studies among all publications in the time period 2015-2018.

Figure 2 goes into greater detail 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 the average number of authors have developed over time.

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

The top left panel of Figure 2 shows that lab experiments are still the dominant type of experiments in experimental finance, but that field experiments are gaining in importance. Among others, there are two reasons for this development. First, there was a relatively strong trend within experimental finance until around 2010 of conducting market experiments 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 investigate the behavior of finance professionals since the mid-2010s. Studies span across a variety of questions focusing professionals reaction to tournament or rank incentives ([Kirchler et al., 2018](#)), professionals risk-taking behavior when primed with their private or professional identity ([Cohn et al., 2017](#)), professionals proneness to bubble formation in laboratory asset markets ([Weitzel et al., 2020](#)), professionals behavior when taking decisions on behalf of third parties ([Kirchler et al., 2020](#)), or professionals 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 randomized control trials, RCTs, also reached 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 with a surge in field experiments having been published in the top economics journals in the 2010s, one can expect that this trend might get stronger in finance in the upcoming years.⁹

Observation 4: “Descriptive” experiments—i.e., experiments without a theoretical model—are dominant among laboratory experiments.

When turning to the question about trends in “descriptive” experiments and theory-driven experiments, the top right panel of Figure 2 provides answers. As indicated, only studies that do not apply a formal mathematical model are subsumed under the former category. In the latter category instead, all studies that use a formal model and thereby either include a single model, competing models, or parameter estimations are counted (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 than experiments with a theoretical foundation (for the most recent time period under consideration, 2016-2020). While the absolute number of papers within both categories grew substantially over time, the trends speak clearly in favor of descriptive experiments as their growth rate was stronger than the one of theory-driven experiments. Note that both categories shared around the same number of experimental publications until the mid 1990s, although on 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 of 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. First studies asked, 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 variety of questions got more dispersed, also 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 there were close to zero experiments of this type in the Top

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

6 finance journals until 2000, the number has increased to close to 20 publications for the period 2016-2020, almost 60% higher than the number of market experiments. Here, the portfolio of topics and research questions is very 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](#)). Interestingly, 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: There are no clear trends in article length and in the number of co-authors of experimental finance papers in the Top 3 (6) over the past decades.

The bottom right panel of Figure 2 depicts the development of the average paper length in pages (left scale) and the average number of authors per paper (right scale) since the 1980s. One can see that for both variables, there is no clear pattern 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 be one that becomes more pronounced over time and thereby picking up 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 below 1.5 authors per paper to around 2.3 authors per paper since the 1970s ([Card & DellaVigna, 2013](#)).

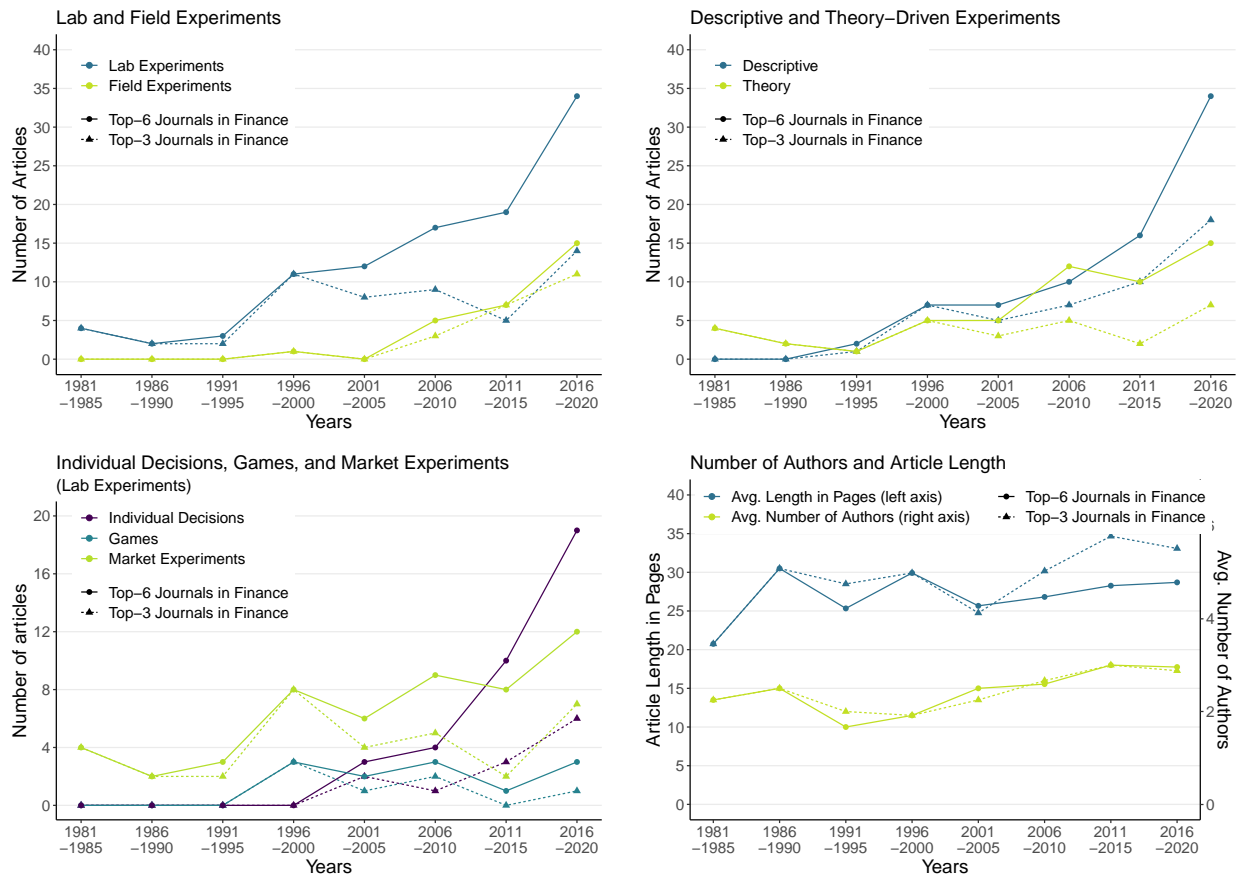


Figure 2: Different types and trends of experimental publications in finance journals.

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

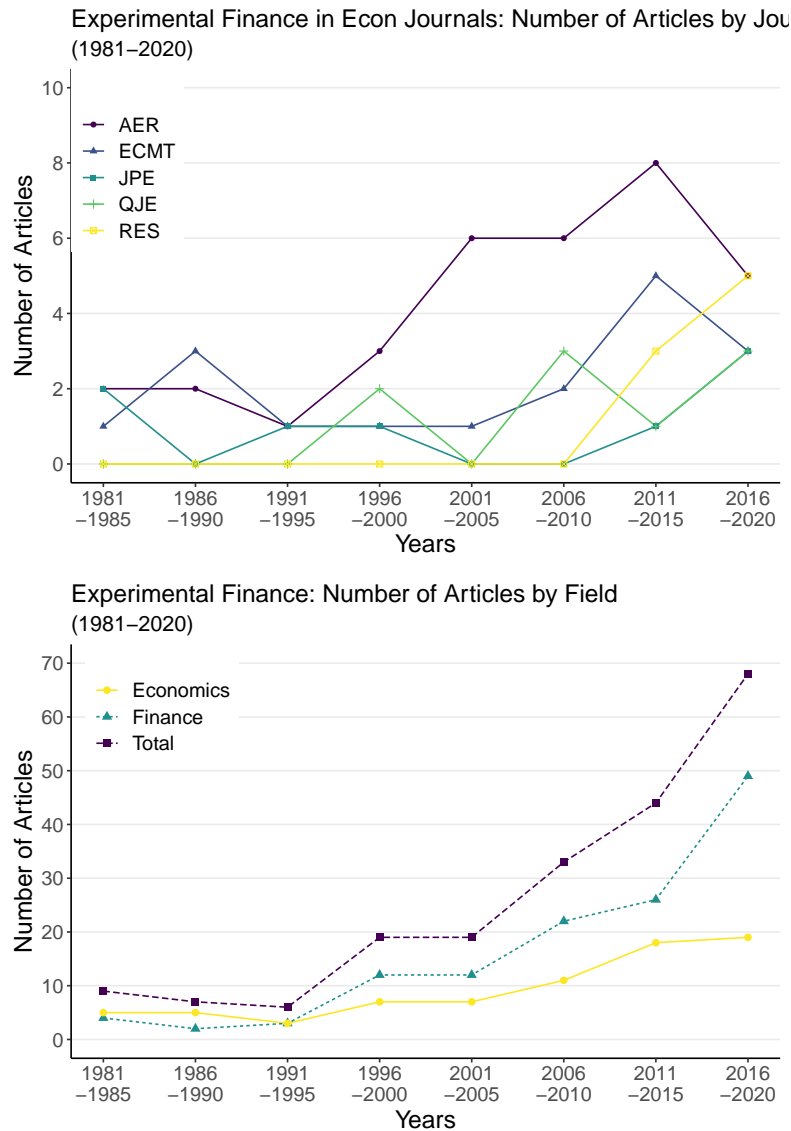


Figure 3: Number of experimental articles per year in economics and finance journals.

Experimental finance publications are of course not only limited to finance journals. Instead, seminal papers in experimental finance such as the ones by [Plott & Sunder \(1982\)](#), [Plott & Sunder \(1988\)](#), [Smith et al. \(1988\)](#), investigating the efficiency of experimental asset markets have been published in one of the Top 5 journals in economics. Therefore, Figure 3 depicts the development of papers in experimental finance published in the Top 5 economics journals, as defined in the methods section above. The top panel of Figure 3 portrays the development for each economics journal separately. It

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

Moreover, the bottom panel of Figure 3 contrasts the aggregate development of experimental finance publications in the Top 6 finance journals (turquoise) and in the Top 5 economics journals (yellow). While the trends in both areas were similar—although on 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 the Top 5 journals in economics. While the trend in the Top 5 economics journals appears 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) show that the number of experimental papers (across all sub-disciplines) in the Top 5 journals in economics has dropped by around 40% since 2010.

4 Conclusion

In this study, we have tried to bring some light in the development of experimental finance publications in the top journals in finance and in economics. While the investigation of human behavior in financial decisions might sound like an important and straightforward area, the absolute and relative number of publications in the top journals has been small in the last decades. It is difficult to speculate, but it seems that the heritage of finance and its focus on theoretical models and empirical studies could be one reason for it. This implies that the vast majority of editors and reviewers were non-experimentalists in the past decades, 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 four-fold increase of the share of experimental studies among all publications in the top finance journals. Moreover, since the 2000s trends towards descriptive experiments (i.e., without a theoretical framework), individual decision experiments, and field experiments (i.e., particularly artefactual or framed field experiments with industry professionals, see Huber & König-Kersting, 2022, for a comprehensive survey) are evident. While the fraction of experimental papers published in the top finance journals is still growing, 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—i.e., 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 one important method starting from almost no publications in the 1980s and early 1990s. The growing numbers of publications in the top journals, but also the strong growth in the community as measured by the number of members of the Society for Experimental Finance¹⁰—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 particularly 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 of the young scholars will achieve tenure positions at international universities and thereby establish their own research groups dedicated to this method.

It is not within the scope of this survey to discuss promising areas and research questions that can or should be addressed in the future. However, future methodological advancements are up for discussion and we would like to address some developments that we consider important for the experimental finance community in the future. Since the seminal replication project in psychology by the Open Science Collaboration in 2015 (Open Science Collaboration, 2015) and the first major replication study in experimental economics in 2016 (Camerer et al., 2016), the topic of reproducibility of scientific results is on top of the agenda in many experimental disciplines in the Social Sciences (see Page et al., 2021, for a recent discussion in the context of experimental economics). Following Munafò et al. (2017), the lack of reproducibility of scientific findings in general rests on many problematic research practices, spanning from the design of the study to the writing up of the paper (or even the lack of writing up a paper in case results do not turn out favorably). Among others, malign research practices can be defined by a bad study design and documentation, by a low power of studies (i.e., a too small sample size and thereby and increased likelihood of false positive results), by forking and p-hacking practices (i.e., the behavior to select data analysis paths that are the most favorable ones to reach the “magic” 5%-level of significance after data has been collected), by the HARKing (“Hypotheses After Results are Known”) phenomenon (i.e., the tendency to “develop” hypotheses after results are known, making the paper look way smoother), and by publication bias (i.e., the tendency that insignificant results are of less interest and imply lower publication probabilities with the consequence of a substantial number of papers that have never been written). Those practices provide large welfare losses for the scientific community, because false positive results might spur research agendas and let research groups invest a lot of money and effort, even though the underlying effect sizes are weak or do not exist. Moreover, a strong publication bias can lead to a multitude of studies finding insignificant results that never get published and that thus other research teams are not aware of. Thereby a lot of money and energy of researchers is burned by finding out what others have already discovered years ago, which, however, was never published.

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

Particularly since a few years, there is a tendency towards overcoming those malign research practices with pre-registering studies before data is collected. These pre-analysis plans, specifying ex ante the design of the experiment, the experimental protocol, but also (part of or) the entire data analysis, have gained popularity, but there is still a lot of upside potential within the scientific communities. We propose that all studies should be run with a pre-analysis plan that is already standard in, for instance, the medical sciences. These pre-analysis plans should contain statistical power analysis implying that future studies might be highly powered with a substantially higher number of subjects than in the early days of experimental finance and thereby reducing the propensity of false positives. Moreover, we can also envision replication attempts of the community for studies in experimental finance, testing whether important findings are really robust. Inspired by the replication projects in psychology ([Open Science Collaboration, 2015](#)), experimental economics ([Camerer et al., 2016](#)) and the experimental Social Sciences ([Camerer et al., 2018](#)), these team science approaches with many international teams collaborating on one joint replication project are a fruitful way forward. Furthermore, even in case of pre-registration of the design and the analysis, the idea of robustness analysis gains importance. Therefore, we can imagine running pre-registered multiverse analyses ([Simonsohn et al., 2020](#)) in some projects, presenting all meaningful analysis paths to the data at hand. With this approach—particularly the “Specification Curve Analysis of [Simonsohn et al. \(2020\)](#)” appears a very promising route to take—the robustness of results can be addressed in a much more comprehensive way.

References

- Alevy, J. E., Haigh, M. S., & List, J. A. (2007). Information cascades: Evidence from a field experiment with financial market professionals. *The Journal of Finance*, 62(1), 151–180.
- Ang, J. S., & Schwarz, T. (1985). Risk a version and information structure: An experimental study of price variability in the securities markets. *The Journal of Finance*, 40(3), 825–844.
- Bergstrom, C. T., West, J. D., & Wiseman, M. A. (2008). The eigenfactorTM metrics. *Journal of Neuroscience*, 28(45), 11433–11434.
- Bloomfield, R., & O'Hara, M. (1999). Market transparency: Who wins and who loses? *The Review of Financial Studies*, 12(1), 5–35.
- Bollerslev, T. (1986). Generalized autoregressive conditional heteroskedasticity. *Journal of Econometrics*, 31(3), 307–327.
- Bossaerts, P., & Plott, C. (2004). Basic principles of asset pricing theory: Evidence from large-scale experimental financial markets. *Review of Finance*, 8(2), 135–169.
- Bossaerts, P., Plott, C., & Zame, W. R. (2007). Prices and portfolio choices in financial markets: Theory, econometrics, experiments. *Econometrica*, 75(4), 993–1038.
- Bradbury, M. A., Hens, T., & Zeisberger, S. (2015). Improving investment decisions with simulated experience. *Review of Finance*, 19(3), 1019–1052.
- Bruguier, A. J., Quartz, S. R., & Bossaerts, P. (2010). Exploring the Nature of "Trader Intuition". *The Journal of Finance*, 65(5), 1703–1723.
- Bursztyn, L., Fiorin, S., Gottlieb, D., & Kanz, M. (2019). Moral incentives in credit card debt repayment: evidence from a field experiment. *Journal of Political Economy*, 127(4), 1641–1683.
- Camerer, C. F., Dreber, A., Forsell, E., Ho, T.-H. H., Huber, J., Johannesson, M., Kirchler, M., Almenberg, J., Altmejd, A., Chan, T., Heikensten, E., Holzmeister, F., Imai, T., Isaksson, S., Nave, G., Pfeiffer, T., Razen, M., & Wu, H. (2016). Evaluating replicability of laboratory experiments in economics. *Science*, (p. aaf0918).
- Camerer, C. F., Dreber, A., Holzmeister, F., Ho, T.-H., Huber, J., Johannesson, M., Kirchler, M., Nave, G., Nosek, B. A., Pfeiffer, T., Altmejd, A., Buttrick, N., Chan, T., Chen, Y., Forsell, E., Gampa, A., Heikensten, E., Hummer, L., Imai, T., Isaksson, S., Manfredi, D., Rose, J., Wagenmakers, E.-J., & Wu, H. (2018). Evaluating the replicability of social science experiments in Nature and Science between 2010 and 2015. *Nature Human Behaviour*, 2(9), 637–644.
- Card, D., & DellaVigna, S. (2013). Nine Facts about Top Journals in Economics. *Journal of Economic Literature*, 51(1), 144–161.
- Card, D., DellaVigna, S., & Malmendier, U. (2011). The Role of Theory in Field Experiments. *Journal of Economic Perspectives*, 25(3), 39–62.
- Cloos, J., Greiff, M., & Rusch, H. (2020). Geographical concentration and editorial favoritism within the field of laboratory experimental economics. Working Paper.
- Cohn, A., Fehr, E., & Maréchal, M. A. (2017). Do professional norms in the banking industry favor risk-taking? *The Review of Financial Studies*, 30(11), 3801–3823.
- Copeland, T. E., & Friedman, D. (1987). The effect of sequential information arrival on asset prices: An experimental study. *The Journal of Finance*, 42(3), 763–797.

- Copeland, T. E., & Friedman, D. (1991). Partial revelation of information in experimental asset markets. *The Journal of Finance*, 46(1), 265–295.
- Corrado, C. J. (2011). Event studies: A methodology review. *Accounting & Finance*, 51(1), 207–234.
- Croson, R. T., Gomes, A., McGinn, K. L., & Nöth, M. (2004). Mergers and acquisitions: An experimental analysis of synergies, externalities and dynamics. *Review of Finance*, 8(4), 481–514.
- Eckel, C. C., & Füllbrunn, S. C. (2015). Thar she blows? Gender, competition, and bubbles in experimental asset markets. *American Economic Review*, 105(2).
- Economic Science Association (2020). About ESA. Retrieved from <https://www.economicscience.org/page/about-esa/> (Online; accessed 2020-11-25).
- Engle, R. (2001). Garch 101: The use of arch/garch models in applied econometrics. *Journal of Economic Perspectives*, 15(4), 157–168.
- Engle, R. F. (1982). Autoregressive conditional heteroscedasticity with estimates of the variance of united kingdom inflation. *Econometrica*, (pp. 987–1007).
- Fabozzi, F. J., & Drake, P. P. (2009). *Finance: Capital Markets, Financial Management, and Investment Management*, vol. 178. John Wiley & Sons.
- Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383–417.
- Fama, E. F., & Miller, M. H. (1972). *The Theory of Finance*. Holt Rinehart & Winston.
- Feigenberg, B., Field, E., & Pande, R. (2013). The economic returns to social interaction: Experimental evidence from microfinance. *Review of Economic Studies*, 80(4), 1459–1483.
- Gneezy, U., Kapteyn, A., & Potters, J. (2003). Evaluation periods and asset prices in a market experiment. *The Journal of Finance*, 58(2), 821–837.
- Grossman, S. J., & Stiglitz, J. E. (1980). On the Impossibility of Informationally Efficient Markets. *American Economic Review*, 70(3), 393–408.
- Haigh, M. S., & List, J. A. (2005). Do professional traders exhibit myopic loss aversion? an experimental analysis. *The Journal of Finance*, 60(1), 523–534.
- Hampton, J. J. (1976). *Financial decision making*. Reston Pub. Co.
- Harrison, G. W., & List, J. A. (2004). Field Experiments. *Journal of Economic Literature*, 42(4), 1009–1055.
- Haruvy, E., & Noussair, C. N. (2006). The Effect of Short Selling on Bubbles. *The Journal of Finance*, LXI(3), 1119–1157.
- Hommes, C. H. (2006). Chapter 23 heterogeneous agent models in economics and finance. In L. Tesfatsion, & K. Judd (Eds.) *Handbook of Computational Economics*, vol. 2, (pp. 1109–1186). Elsevier.
- Huber, C., & Huber, J. (2019). Scale matters: risk perception, return expectations, and investment propensity under different scalings. *Experimental Economics*, 22(1), 76–100.
- Huber, C., & König-Kersting, C. (2022). Experimenting with financial professionals. Working Paper.
- Kale, J. R., & Noe, T. H. (1997). Unconditional and conditional takeover offers: Experimental evidence. *The Review of Financial Studies*, 10(3), 735–766.

- Karlan, D., & Zinman, J. (2010). Expanding credit access: Using randomized supply decisions to estimate the impacts. *The Review of Financial Studies*, 23(1), 433–464.
- Kirchler, M., Lindner, F., & Weitzel, U. (2018). Rankings and Risk-Taking in the Finance Industry. *The Journal of Finance*, 73(5), 2271–2302.
- Kirchler, M., Lindner, F., & Weitzel, U. (2020). Delegated investment decisions and rankings. *Journal of Banking & Finance*, 120, 105952.
- Kocher, M. G., Lucks, K. E., & Schindler, D. (2019). Unleashing animal spirits: Self-control and overpricing in experimental asset markets. *The Review of Financial Studies*, 32(6), 2149–2178.
- Lintner, J. (1965). Security prices, risk, and maximal gains from diversification. *The Journal of Finance*, 20(4), 587–615.
- Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77–91.
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261–297.
- Mossin, J. (1966). Equilibrium in a capital asset market. *Econometrica*, (pp. 768–783).
- Munafò, M. R., Nosek, B. A., Bishop, D. V., Button, K. S., Chambers, C. D., Percie du Sert, N., Simonsohn, U., Wagenmakers, E.-J., Ware, J. J., & Ioannidis, J. (2017). A manifesto for reproducible science. *Nature human behaviour*, 1(1), 1–9.
- Nikiforakis, N., & Slonim, R. (2015). Editors' preface: statistics, replications and null results. *Journal of the Economic Science Association*, 1(2), 127–131.
- Nikiforakis, N., & Slonim, R. (2019). Editors' Preface: Trends in experimental economics (1975-2018). *Journal of the Economic Science Association*, 5(2), 143–148.
- Noussair, C. N. (2016). Society for experimental finance presidential address 2015. *Journal of Behavioral and Experimental Finance*, 10, 1–4.
- Noussair, C. N., Trautmann, S. T., & Van de Kuilen, G. (2014). Higher order risk attitudes, demographics, and financial decisions. *Review of Economic Studies*, 81(1), 325–355.
- Noussair, C. N., & Tucker, S. (2013). Experimental research on asset pricing. *Journal of Economic Surveys*, 27(3), 554–569.
- Open Science Collaboration (2015). Estimating the reproducibility of psychological science. *Science*, 349(6251), aac4716.
- Page, L., Noussair, C. N., & Slonim, R. (2021). The replication crisis, the rise of new research practices and what it means for experimental economics. *Journal of the Economic Science Association*.
- Palan, S. (2013). A Review of bubbles and crashes in experimental asset markets. *Journal of Economic Surveys*, 27(3), 570–588.
- Pearl, J., & Mackenzie, D. (2018). *The book of why: the new science of cause and effect*. Penguin UK.
- Plott, C. R. (1986). Laboratory experiments in economics: The implications of posted-price institutions. *Science*, 232(4751), 732–738.
- Plott, C. R., & Sunder, S. (1982). Efficiency of Experimental Security Markets with Insider Information: An Application of Rational-Expectations Models. *Journal of Political Economy*, 90(4), 663–698.

- Plott, C. R., & Sunder, S. (1988). Rational expectations and the aggregation of diverse information in laboratory security markets. *Econometrica*, (pp. 1085–1118).
- Powell, O., & Shestakova, N. (2016). Experimental asset markets: A survey of recent developments. *Journal of Behavioral and Experimental Finance*, 12, 14–22.
- Reuben, E., Li, S. X., Suetens, S., Svorenčík, A., Turocy, T., & Kotsidis, V. (2021). Trends in the publication of experimental economics articles. Working Paper.
- Samuelson, P. A., & Nordhaus, W. D. (1985). *Economics*. McGraw-Hill, 12 ed.
- Samuelson, P. A., & Nordhaus, W. D. (2009). *Economics*. McGraw-Hill, 19 ed.
- Shahriar, A. Z. M., Unda, L. A., & Alam, Q. (2020). Gender differences in the repayment of microcredit: The mediating role of trustworthiness. *Journal of Banking & Finance*, 110, 105685.
- Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance*, 19(3), 425–442.
- Shiller, R. J. (1981). Do stock prices move too much to be justified by subsequent changes in dividends? *The American Economic Review*, 71(3), 421–436.
- Simonsohn, U., Simmons, J. P., & Nelson, L. D. (2020). Specification curve analysis. *Nature Human Behaviour*, 4(11), 1208–1214.
- Smith, V. L. (1982). Markets as economizers of information: experimental examination of the “Jhayek hypothesis”. *Economic Inquiry*, 20(2), 165–179.
- Smith, V. L., Suchanek, G. L., & Williams, A. W. (1988). Bubbles, Crashes, and Endogenous Expectations in Experimental Spot Asset Markets. *Econometrica*, 56(5), 1119–1151.
- Smith, V. L., Williams, A. W., Bratton, W. K., & Vannoni, M. G. (1982). Competitive market institutions: Double auctions vs. sealed bid-offer auctions. *The American Economic Review*, 72(1), 58–77.
- Svorenčík, A. (2015). The experimental turn in economics: a history of experimental economics. *University of Utrecht: Utrecht School of Economics Dissertation Series*, 29.
- Weitzel, U., Huber, C., Huber, J., Kirchler, M., Lindner, F., & Rose, J. (2020). Bubbles and financial professionals. *The Review of Financial Studies*, 33(6), 2659–2696.

Online Appendix

A Additional Figures

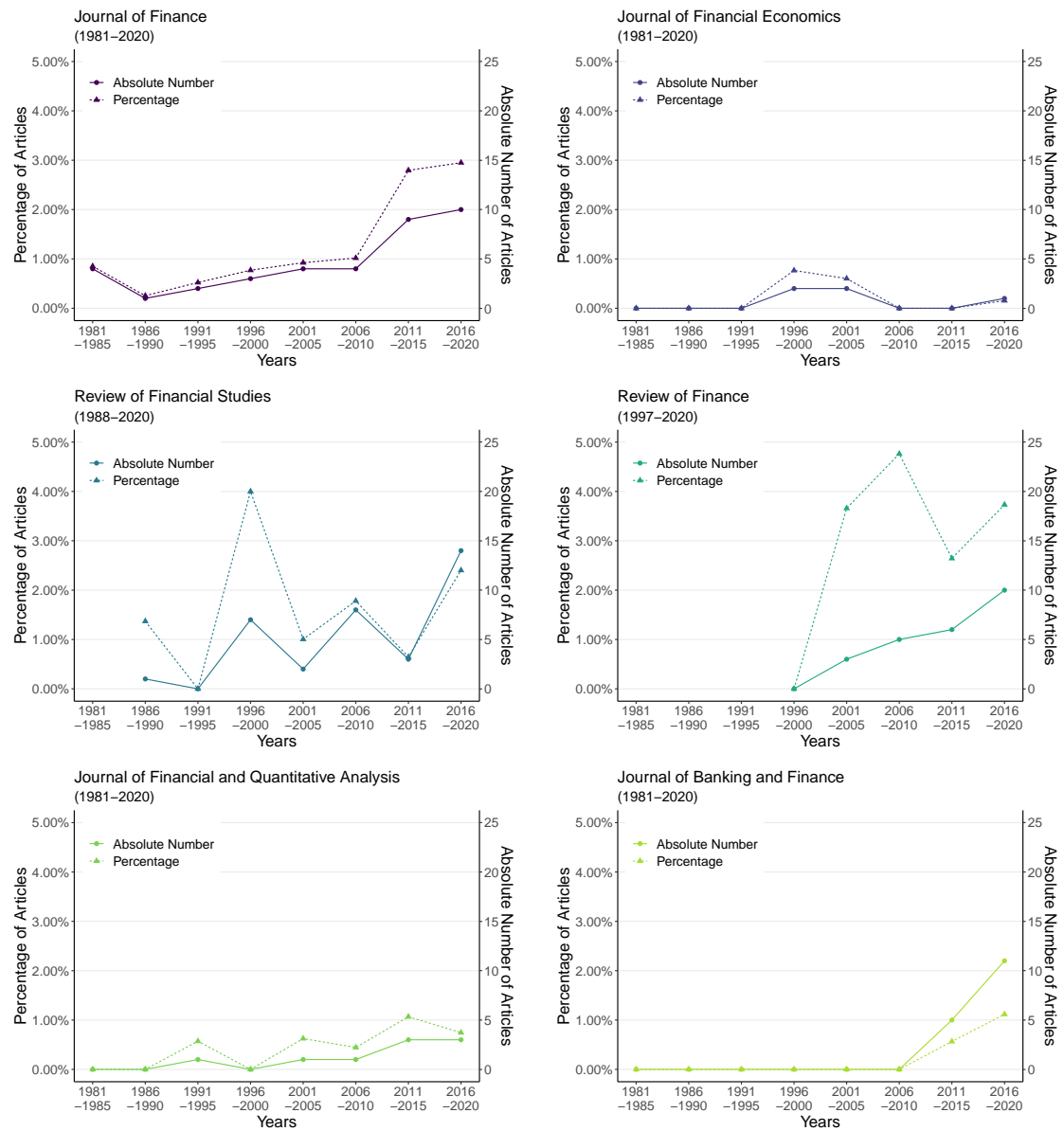


Figure A1: Number of experimental articles per year for each of the Top-6 finance journals.

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Christoph Huber, Michael Kirchler

Experiments in Finance – A Survey of Historical Trends

Abstract

Experiments can complement other methods in identifying causal relationships and in 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 compile 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*—as well as of experimental finance studies published in the Top 5 journals in economics. With this novel dataset, we identify historical trends in experimental finance. Since the first experiments were published in finance journals in the 1980s, and especially in the last 20 years, the share of experimental publications in these journals has increased strongly. We report trends towards descriptive experiments, individual decision experiments, and field experiments.

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