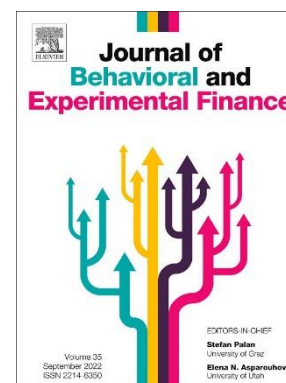


Registered Reports guidelines for reviewers and authors

Registered Reports are a form of empirical articles offered at the Journal of Behavioral and Experimental Finance in which the methods and proposed analyses are preregistered and reviewed prior to research being conducted (also referred to as pre-results review). Conditional on a positive evaluation in a double-blind reviewing process, high quality protocols are then provisionally accepted for publication before data collection commences. The registered report format is designed to minimize publication bias and questionable research practices while also allowing the flexibility to conduct exploratory (unregistered) analyses and report unanticipated findings.



The cornerstone of the Registered Reports format is that a significant part of the manuscript will be assessed prior to data collection, with the highest quality submissions being in-principle accepted in advance. The review process for Registered Reports is divided into two stages. At Stage 1, reviewers assess study proposals before data are collected. At Stage 2, reviewers consider the full study, including results and interpretation.

The editors will select only the most scientifically promising manuscripts for in-depth peer review. Stage 1 submissions should include the manuscript and a cover letter. Stage 1 submissions will include a description of the key research question(s) and background literature, hypotheses, experimental procedures, analysis pipeline, a statistical power analysis (or Bayesian equivalent), pilot data (where applicable), and references for these sections. Authors are welcome to submit pre-submission inquiries for advice on the likely suitability of a prospective study as a Registered Report. (However, the editorial board will not agree to send manuscripts for in-depth review until a complete Stage 1 submission has been submitted.)

Following Stage 1 peer review, manuscripts are accepted, offered the opportunity to be revised and resubmitted, or rejected outright. Manuscripts that pass peer review are issued an *in-principle acceptance* (IPA), indicating that the article will be published pending successful completion of the study according to the preregistered methods and analytic procedures, as well as a defensible and evidence-based interpretation of the results. Following IPA, the authors then proceed to conduct the study, adhering to the peer-reviewed procedures. Following completion of the study, the authors complete the manuscript, including the Results and Discussion sections. When the study is complete, the authors submit their finalized manuscript for Stage 2 review. These Stage 2 manuscripts more closely resemble a regular article format.

The paper is then sent back to the reviewers who evaluated the Stage 1 submission (if available). The reviewers are asked to assess the paper according to the Stage 2 criteria in the 'Guidelines for reviewers' (see below). Pending quality checks and a sensible interpretation of the findings, the manuscript is revised and/or published regardless of the results.

All details are provided below.

Guidelines for reviewers

In considering papers at Stage 1, reviewers will be asked to assess the following:

1. The theoretical and/or practical importance of the research question(s).
2. The logic, rationale, and plausibility of the proposed hypotheses.
3. The soundness and feasibility of the methodology and analysis pipeline.
4. The soundness and plausibility of the statistical power analysis or determination of the sample (size).

- Whether the clarity and degree of methodological detail are sufficient for an independent researcher to exactly replicate the proposed experimental procedures and analysis pipeline.
- Whether the authors have pre-specified sufficient outcome-neutral tests for ensuring that the results obtained allow for testing the stated hypotheses.

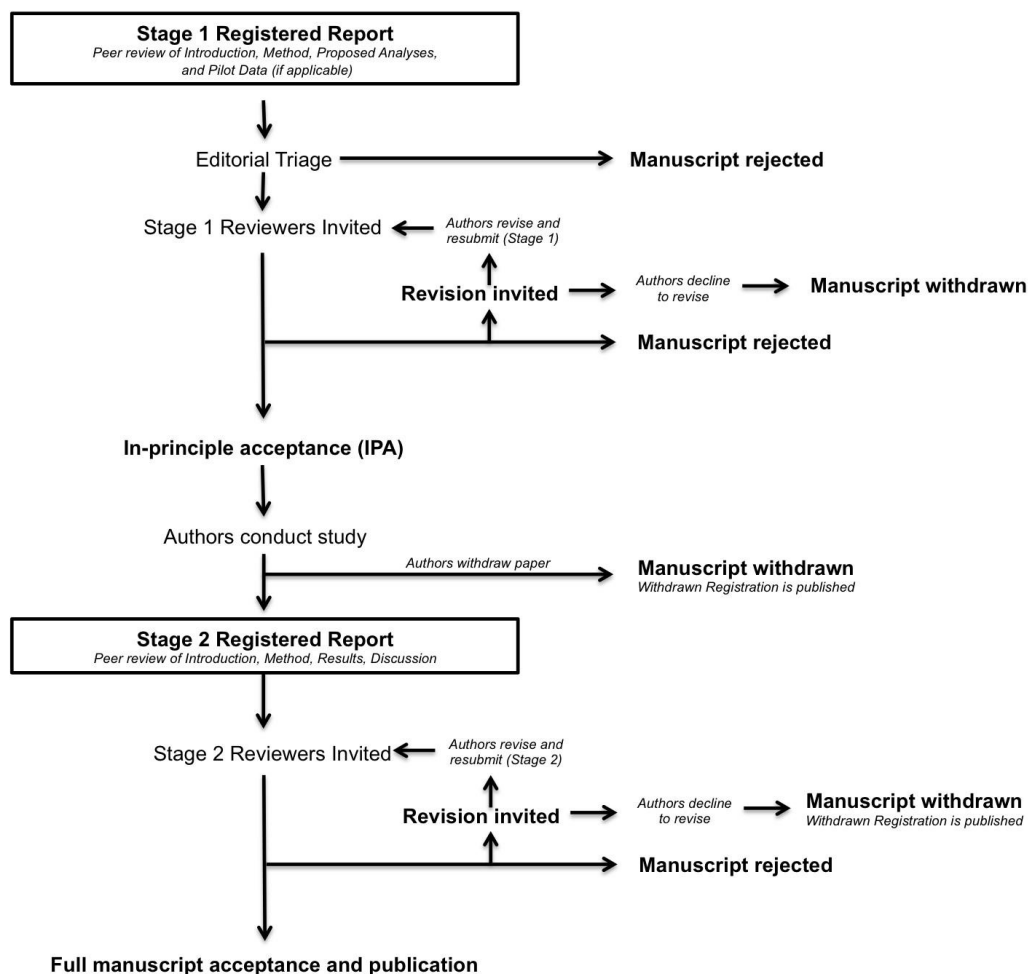
In considering manuscripts at Stage 2, returned to the same reviewers, the task will be to evaluate:

- Whether the introduction/motivation, rationale, and stated hypotheses are the same as those in the approved Stage 1 submission (required)
- Whether the authors adhered precisely to the preregistered experimental procedures
- Whether any unregistered *post hoc* analyses added by the authors are marked as such and are justified, methodologically sound, and informative
- Whether the authors' interpretation of results and conclusions are justified given the data

Reviewers at Stage 2 may suggest that authors report additional *post hoc* tests on their data; however, authors are not obliged to do so unless such tests are necessary to satisfy one or more of the Stage 2 review criteria. **Please note that editorial decisions regarding Stage 2 manuscripts will not be based on the perceived importance, novelty, or conclusiveness of the results.**

Guidelines for authors

Flow Chart for Registered Reports



Stage 1: Initial manuscript submission and review

Stage 1 submissions should include the manuscript (details below) and a cover letter.

The cover letter should include:

- A brief scientific case for consideration. Direct and conceptual replications with high prospective replication value are welcome in addition to novel studies.
- A statement confirming that all necessary support (e.g., funding, facilities) and approvals (e.g., ethics) are in place for the proposed research. Note that manuscripts will generally be considered only for studies that can commence immediately; however, authors with alternative plans are encouraged to contact the journal office for advice.
- An anticipated timeline for completing the study if the initial submission is accepted.
- A statement confirming that the authors agree to share their raw data, digital study materials, analysis scripts/code, and laboratory logs for all published results. If the authors are not able to share one of these materials, they need to already state so and outline the reasons in the original submission.
- A statement confirming that if the authors later withdraw their paper, they agree to the Journal publishing a summary of the preregistered study under a section *Withdrawn Registrations*.

Manuscript preparation guidelines – Stage 1

Initial Stage 1 submissions should include the following sections:

□ Introduction

- A review of the relevant literature that motivates the research question and a full description of the experimental aims and hypotheses. Please note that following IPA, the Introduction section cannot be altered without express editorial consent.

□ Methods

- A comprehensive description of the sampling plan and a full description of proposed sample characteristics, including criteria for data inclusion and exclusion. Procedures for objectively defining exclusion criteria due to technical errors or for any other reasons must be specified, including details of how and under which conditions data would be replaced.
- A description of experimental procedures in sufficient detail to allow an independent researcher to repeat the methodology exactly without requiring further information. These procedures must be adhered to exactly in the subsequent experiments, or any Stage 2 manuscript can be rejected.
- Proposed analysis pipeline, including all preprocessing steps and a precise description of all planned analyses. All dependent measures must be clearly defined and all independent variables and/or covariates must be stated. Where analysis decisions are contingent on the outcome of prior analyses, these contingencies must be specified and adhered to. Only pre-planned analyses can be reported in the main Results section of Stage 2 submissions. However, unplanned exploratory analyses will be admissible in a separate section of the Results or a clearly labelled (as exploratory) subsection (see below).
- Studies involving inferential statistics must include an a priori power analysis to determine an adequate sample size. The authors need to provide an argument for which effect size is economically meaningful and will therefore be considered the effect size of interest in their study. The a priori power for detecting effects of this size should ideally be 0.8-0.9 or higher for all proposed hypothesis tests, but can be lower if well-justified.
- Full descriptions must be provided of any outcome-neutral criteria that must be met for successful testing of the stated hypotheses. Such quality checks might include the absence of floor or ceiling effects in data distributions, positive controls, or other quality checks that are orthogonal to the experimental hypotheses.

- Timeline for completion of the study and proposed resubmission date if Stage 1 review is successful. Extensions to this deadline can be negotiated with the handling editor.
- Any description of prospective methods or analysis plans should be written in future tense.

□ Pilot data

- Optional. Can be included to establish proof of concept, effect size estimations, or feasibility of proposed methods. Any pilot experiments must be published with the final version of the manuscript and will be clearly distinguished from (and not pooled with) data obtained for the preregistered experiment(s).

□ Secondary Registrations

- The journal welcomes submissions proposing secondary analyses of existing data sets, provided authors can supply sufficient evidence (e.g., a letter from an independent gatekeeper) to confirm that they have had no prior access to the data in question.

In considering papers at Stage 1, reviewers will be asked to assess points 1-6 provided in the Guidelines for reviewers above.

Authors are reminded that any deviation from the stated experimental procedures, regardless of how minor it may seem to the authors, could lead to rejection of the manuscript at Stage 2.

In cases where the preregistered protocol is altered after IPA due to unforeseen circumstances (e.g., unanticipated technical error), the authors must consult the handling editor immediately for advice and before the completion of the data collection. Minor changes to the protocol may be permitted according to editorial discretion. In such cases, IPA would be preserved, and the deviation reported in the Stage 2 submission. If the authors wish to alter the experimental procedures more substantially following IPA but still wish to publish their article as a Registered Report, the manuscript must be withdrawn and resubmitted as a new Stage 1 submission.

Stage 2: Full manuscript review

Once the study is complete, authors prepare and resubmit their manuscript for full review, with the following additions:

□ Submission of raw data and analysis code/scripts

- Raw data and any digital experimental materials (e.g., stimuli, etc.) must be made freely available in a public repository. Data files should be appropriately time-stamped to show that data was collected after IPA and not before. Other than preregistered and approved pilot data, no data acquired before the date of IPA is admissible in the Stage 2 submission. Raw data and analysis code/scripts must be accompanied by guidance notes (annotations, codebooks, etc.) to assist other scientists in replicating the analysis pipeline.
- Any supplementary figures, tables, or other text (such as supplementary methods) can either be included as standard supplementary information that accompanies the paper, or they can be archived together with the data. Please note that the raw data itself should be archived (see above) rather than submitted to the journal as supplementary material.
- The authors must collectively certify in the resubmission Cover Letter that all nonpilot data was collected after the date of IPA. A basic laboratory log must be provided outlining the range of dates during which data collection took place. This log should be uploaded to the same public archive as the data, with a link provided to the log in the resubmission Cover Letter.

□ Background, Rationale, and Methods

- Apart from minor stylistic revisions, the Introduction cannot be altered from the approved Stage 1 submission, and the stated hypotheses cannot be amended or appended. At Stage 2, any

description of the rationale or proposed methodology that was written in future tense within the Stage 1 manuscript should be changed to past tense. Any textual changes to the Introduction or Methods (e.g., correction of typographic errors) must be clearly marked in the Stage 2 submission.

□ Results & Discussion

- The outcome of all preregistered analyses must be reported in the manuscript. The exception are rare instances where a registered and approved analysis is subsequently shown to be logically flawed or unfounded. In such cases, the authors, reviewers, and editor must agree that a collective error of judgment was made and that the planned analysis is inappropriate. In such cases, the analysis would still be mentioned in the Methods but omitted with justification from the Results.
- It is reasonable that authors may wish to include additional analyses that were not included in the registered submission. For instance, a new analytic approach might become available between IPA and Stage 2 review, or a particularly interesting and unexpected finding may emerge. Such analyses are admissible but must be justified in the text, appropriately caveated, and reported in a separate subsection of the Results section. Authors should be careful not to base their conclusions entirely on the outcome of statistically significant post hoc analyses.
- Authors reporting null hypothesis significance tests are required to report exact p values and effect sizes for all inferential analyses.

The resubmission will most likely be considered by the same reviewers as in Stage 1 but could also be assessed by new reviewers. In considering Stage 2 manuscripts, reviewers will be asked to evaluate the paper based on criteria 1-6 for Stage 2 listed in the Guidelines for reviewers.

Manuscript withdrawal and *Withdrawn Registrations*

Authors with IPA may wish to withdraw their manuscript following or during data collection. Possible reasons could include major technical errors, an inability to complete the study due to unforeseen circumstances, or the desire to submit the results to a different journal. In all such cases, manuscripts can be withdrawn at the authors' discretion. However, the journal will publicly record each case in a section called *Withdrawn Registrations*. This section will list the authors' names, the proposed title, the abstract from the approved Stage 1 submission, and a brief outline of the reason(s) for the failure to complete the study. Partial withdrawals are not possible, i.e., authors cannot publish part of a registered study by selectively withdrawing, e.g., one of the planned experiments. Such cases must lead to the withdrawal of the entire paper. Studies that are not completed by the agreed Stage 2 submission deadline (which can be extended in negotiation with the editorial office) will be considered withdrawn and will be subject to a *Withdrawn Registration*.

Incremental Registrations

Authors may add experiments to approved submissions. In such cases, the approved Stage 2 manuscript will be accepted for publication, and authors can propose additional experiments for Stage 1 consideration. Where these experiments extend the approved submission (as opposed to being part of new submissions), the editorial team will seek to fast-track the review process. This option may be particularly appropriate where an initial experiment reveals a major but unanticipated finding that warrants follow-up investigation within the same paper. In cases where an incremented submission is rejected (at either Stage 1 or 2), authors will retain the option of publishing the most recently approved version of the manuscript. For further advice on specific scenarios for incremental registration, authors are invited to contact the editor-in-chief.