Consultation on Introducing Quarterly Comprehensive Index Reviews

GLOBAL INVESTABLE MARKET INDEXES

March 2021

Background

- MSCI recently consulted on ‘staggering’ the implementation of index reviews. As part of that consultation, market participants suggested that as an alternative to "staggering", **more frequent comprehensive index reviews**, which currently occur semi-annually, may be a way to mitigate index change impact at each rebalancing
- In light of this feedback, MSCI opens a consultation around the proposal to introduce **Quarterly Comprehensive Index Reviews** for MSCI Global Investable Market Indexes (GIMI)
- One of the key objectives of this proposal is to reduce the size of each comprehensive index review by spreading the changes more evenly over each of the **Quarterly Comprehensive Index Reviews.** Currently, MSCI GIMI are reviewed more comprehensively twice a year in May and November. The index reviews conducted in February and August are smaller, designed to reflect only significant changes in the indexes
- This methodology change would also result in more timely representation and size-segmentation of the opportunity set in MSCI GIMI through more frequent updates of the MSCI Equity Universe and comprehensive size-segment reviews
- MSCI welcomes feedback from the investment community on this topic until June 11, 2021. MSCI will announce the results of this consultation on or before June 30, 2021

Proposal and Rationale

- MSCI proposes to introduce **Quarterly Comprehensive Index Reviews** for MSCI GIMI. Under this proposal, MSCI GIMI would be rebalanced quarterly in February, May, August and November on the basis of the methodology which is currently applicable to the Semi-Annual Index Reviews*. The rebalancing schedule for the non-market cap weighted indexes would remain the unchanged
- Based on the historical simulations since the transition to the GIMI methodology in 2008 for Developed Markets (DM) and Emerging Markets (EM), such index review schedule would have resulted in:
  - **Smaller size of each comprehensive rebalancing:** lower average turnover and number of changes at each comprehensive review
  - **Better index representation:** more timely updates of the equity universe, as well as more frequent size/coverage size-segment adjustments
- These changes would have resulted only in a **marginal increase in the annualized turnover and number of index changes**
- The proposal would not have resulted in a significant impact on performance**:
  - Developed Markets: -1bp impact on the annualized performance
  - Emerging Markets: +7bps impact on the annualized performance

*On January 28, 2021, MSCI announced that it will implement the ability to switch a Semi-Annual Index Review (SAIR) to a “light” rebalancing for MSCI GIMI under conditions of market stress. MSCI is currently consulting on proposals around the timeline and criteria for the evaluation of market stress and related public communication. Under the proposal to introduce Quarterly Comprehensive Index Reviews for MSCI GIMI, “light” rebalancing would be potentially applicable to any index review of MSCI GIMI and not only SAIRs, conducted in May and November
**Performance measured for the period from June 2008 till December 2020

Analysis of the Proposal

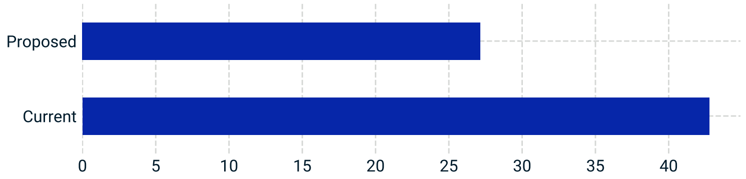
BACK TESTING: 2008 - 2020

Analysis Framework and Key Findings

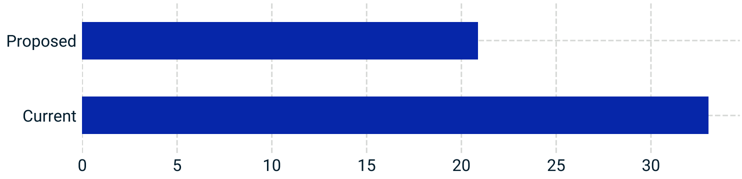
- MSCI performed historical analysis of the proposal over the period from June 2008 till November 2020, using the following metrics, comparing the "Current" and "Proposed" rebalancing schedules:
  - **Size of each index review:** average number of additions/deletions and turnover at each index review
  - **Index representation:**
    - Median of the time to entry to the IMI of the newly eligible securities
    - Historical compliance with size – coverage integrity
  - **Annualized index changes:** average annual number of additions/deletions and turnover, number of flip-flops
- **The proposal would have resulted in the following benefits:**
  - The number of constituent changes and turnover at each review would have been reduced by over 30%
  - The median entry time of newly eligible securities would have reduced from five months down to two months (assuming there is no three-month IPO seasoning rule)
  - More consistent size – coverage integrity would have been maintained in markets drifting from the target
- **The proposal would have resulted only in a marginal increase in the total annual number of index constituent changes and the annual turnover:**
  - Approximately 10% increase in the annual number of additions/deletions, resulting in only ~0.1% and ~0.2% increase in the annual turnover for DM and EM respectively and no material impact on reverse turnover
- In addition to the proposed four comprehensive index review scenario, MSCI also considered the six and twelve index review scenarios. The results are available in the appendix

Reduced Number of Changes at Each Index Review*

Simulated DM Standard Average Index Review Adds

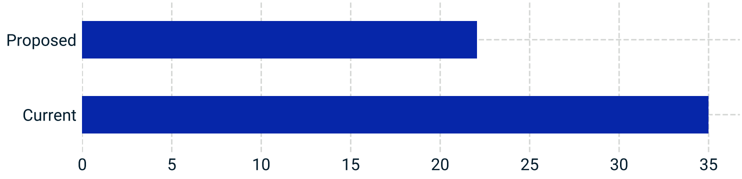


Simulated DM Standard Average Index Review Dels



Simulated EM Standard Average Index Review Adds

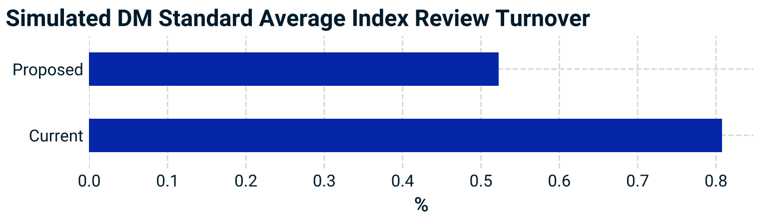
Simulated EM Standard Average Index Review Dels

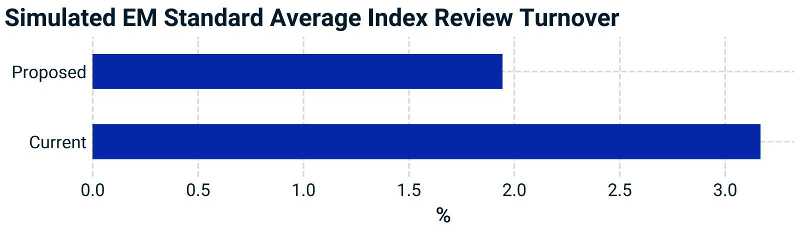


- The average number of additions and deletions at each comprehensive index review since 2008 would have been reduced by over 30%

*DM stands for Developed Markets and EM stands for Emerging Markets. "Standard" Size-Segment corresponds to a combination of Large and Mid Cap Size-Segments, targeting 85% of the Investable Equity Universe

Reduced Turnover at Each Comprehensive Index Review



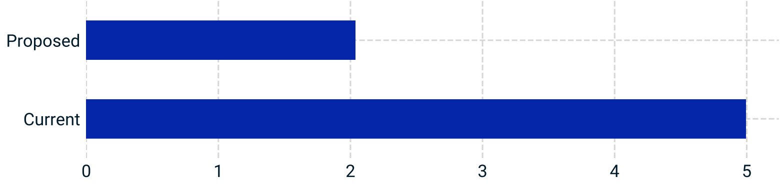


- The average turnover at each comprehensive index review for the simulated MSCI World Index would have been reduced from 0.8% to 0.52% and for the simulated MSCI Emerging Markets Index from 3.3% down to 1.9%

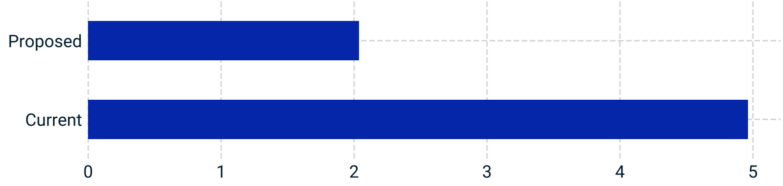
MSCI

Reflecting Equity Universe Changes Faster*

Simulated DM: Median # of Months for IMI entry



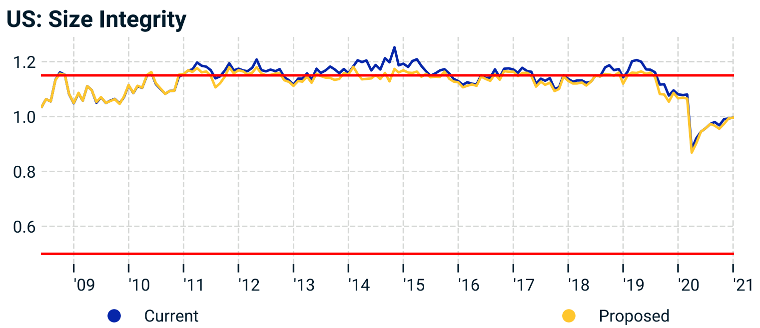
Simulated EM: Median # of Months for IMI entry

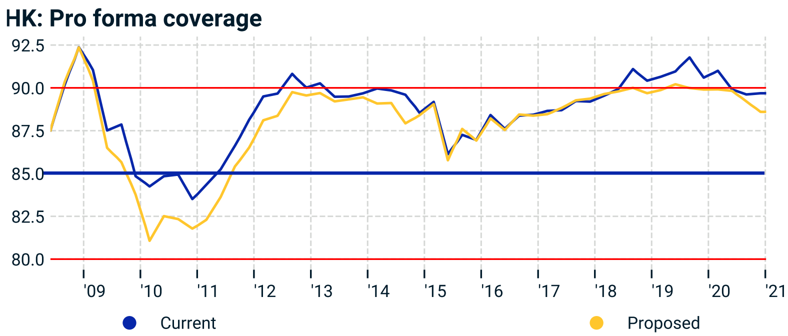


- As the number of comprehensive index reviews increases, newly eligible securities, including IPOs would likely be added faster

*Defined as the period between the first time in universe and above the IMI country cut-off and first IMI inclusion dates. Ignores the 3m IPO seasoning rule

Better Compliance with the Size – Coverage Integrity*





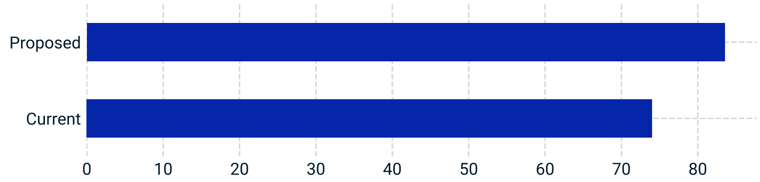
- As markets are more frequently adjusted to comply with the size - coverage integrity, there may be less drift from the size - coverage target. For example:
  - More frequent size integrity adjustments would have resulted in smaller deviations outside the size range for the MSCI USA Index
  - More frequent coverage integrity adjustments would have resulted in smaller deviations outside the coverage range for the MSCI Hong Kong Index

*US and Hong Kong were selected as illustrative markets only. Other markets in the simulated history would have also experienced size-coverage integrity benefits from the proposal. Other examples are provided in the appendix.

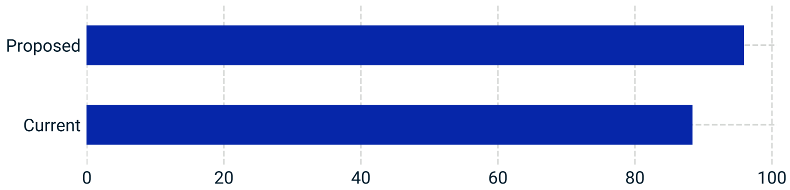
Marginal Increase in the Annual Index Review Changes

Simulated DM Standard Average Annual Adds

Simulated DM Standard Average Annual Dels



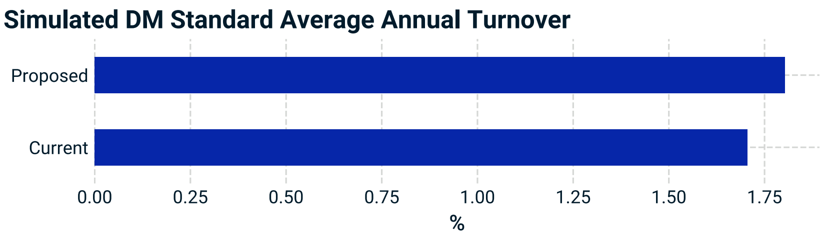
Simulated EM Standard Average Annual Adds

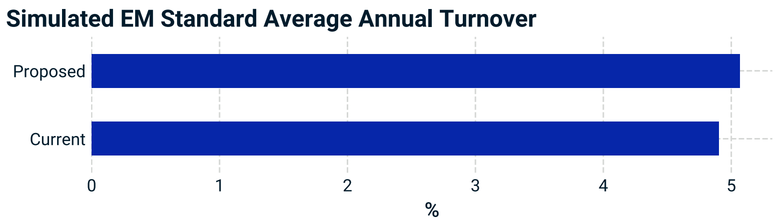


Simulated EM Standard Average Annual Dels

- While some increase in the average annual number of additions and deletions is observed, it is not substantial

Marginal Impact on the Annual and Reverse Turnover





- Over the observed period the average annual turnover would have increased from 1.7% to 1.8% in DM and from 4.9% to 5.1% in EM
- Reverse turnover, measured by the average opposite index constituent moves within one year period, would have remained not higher than one for both DM and EM

Discussion Points

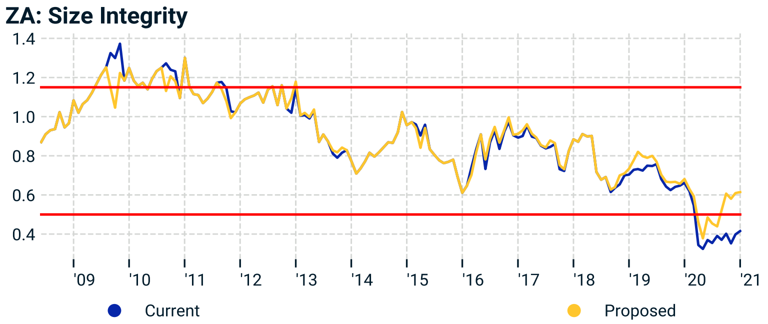
- Do you think introducing the Quarterly Comprehensive Index Review is an enhancement to the MSCI GIMI methodology?
- Do you see more frequent comprehensive index reviews as an efficient way of mitigating index change impact at each rebalancing?
- While the magnitude of changes for the proposal at each index review would go down, the total annual turnover would slightly increase. Is this an issue? Should size-segment buffers be increased to mitigate this?
- Currently, MSCI conducts comprehensive float review on the annual basis. Should the frequency of this review be increased to match the proposed quarterly cycle?
- The proposed change would be applicable only to the GIMI methodology. Should this treatment be extended to any of the non-market capitalization weighted indexes?

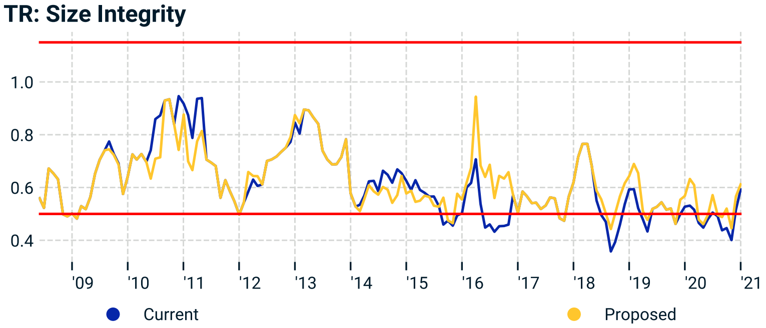
Appendix

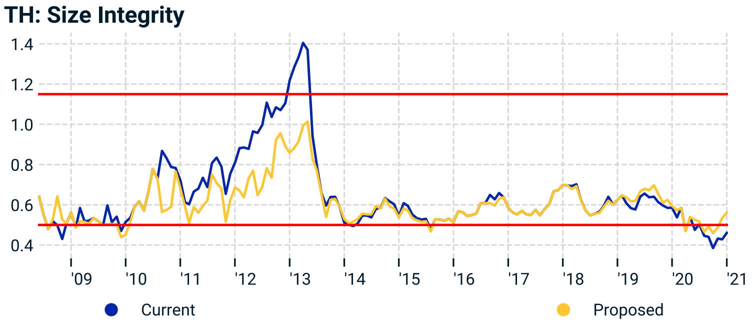
Simulation Details and Underlying Assumptions

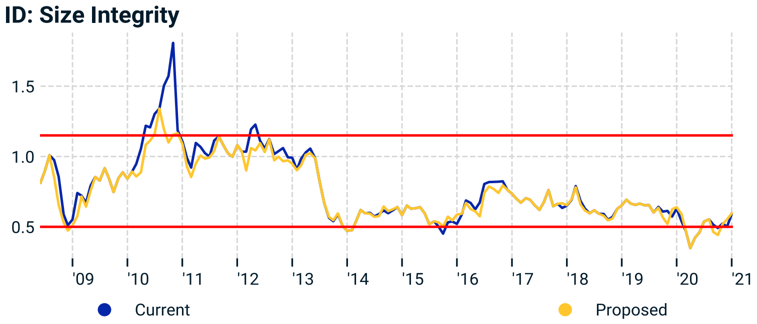
- The simulations were performed over the period from June 2008 till November 2021
  - At inception, current constituents for the live indexes were used
- The “Current” scenario assumes the 2 SAIR / 2 QIR rebalancing schedule but does not correspond to the actual rebalancing results in live indexes. The “Current” scenario was created on the basis of the same data assumptions as the proposed and alternative scenarios
- Average changes for each rebalancing in the “Current” scenario exclude QIRs to allow like-with-like comparison with other alternatives. The annualized index review metrics includes both SAIRs and QIRs
- To remove impact related to market reclassifications, EM, DM statistics assume constant country composition (i.e. covers only countries included during the full period of observations)
- China universe excludes A shares throughout the simulation period to remove the impact resulting from the inclusion of A shares
- Each index review takes place as of the close of the implementation date (relevant month end)
- Three-month IPO seasoning rules was not taken into account

Size Integrity Evolution: More Timely Adjustments







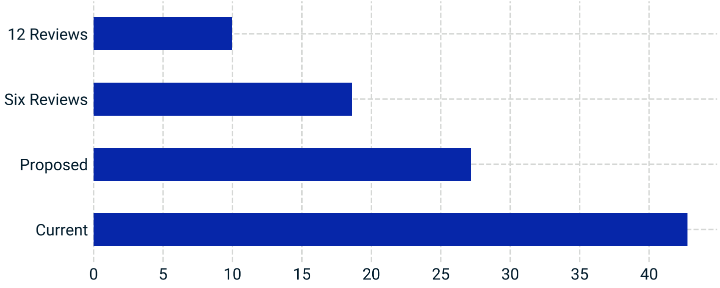


More Frequent Index Reviews

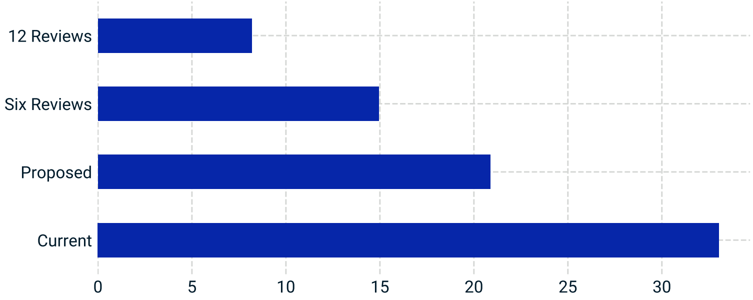
SIX AND TWELVE INDEX REVIEW ALTERNATIVES

Average Additions and Deletions at Each Index Review

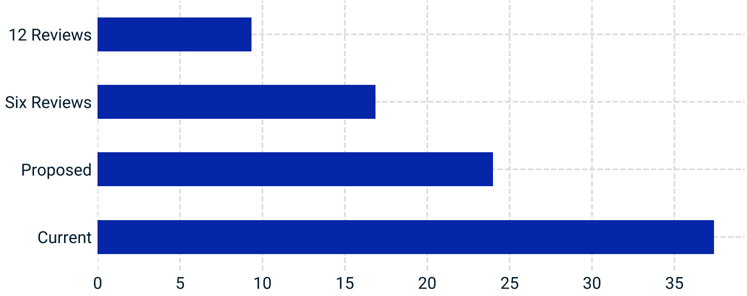
Simulated DM Standard Average Index Review Adds



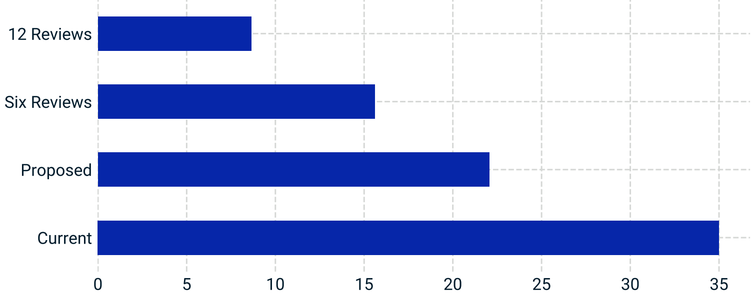
Simulated DM Standard Average Index Review Dels



Simulated EM Standard Average Index Review Adds



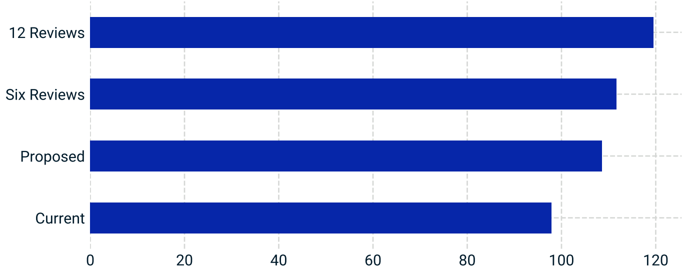
Simulated EM Standard Average Index Review Dels



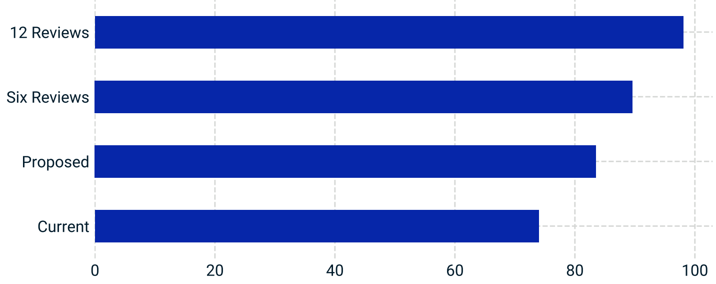
- The average number of additions and deletions at each review consistently goes down as the frequency of rebalancing increases

Average Annual Number of Adds/Dels

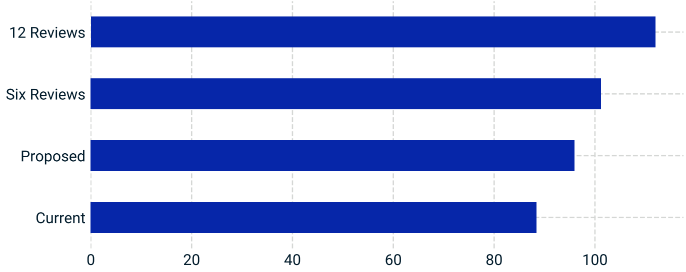
Simulated DM Standard Average Annual Adds



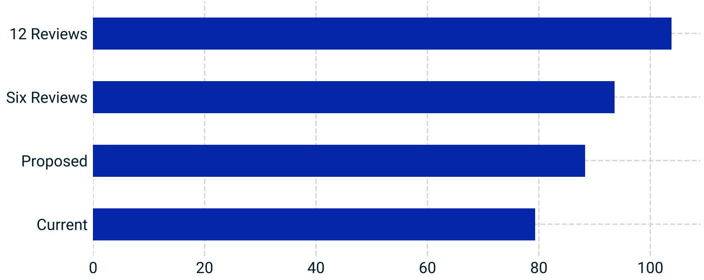
Simulated DM Standard Average Annual Dels



Simulated EM Standard Average Annual Adds

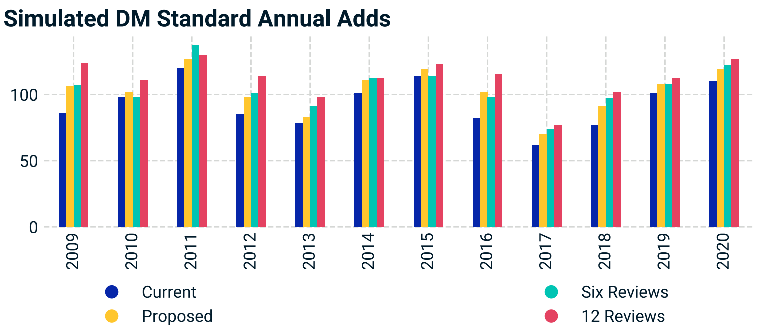


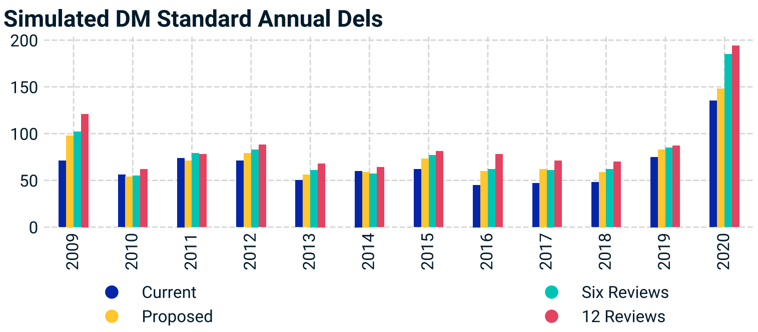
Simulated EM Standard Average Annual Dels

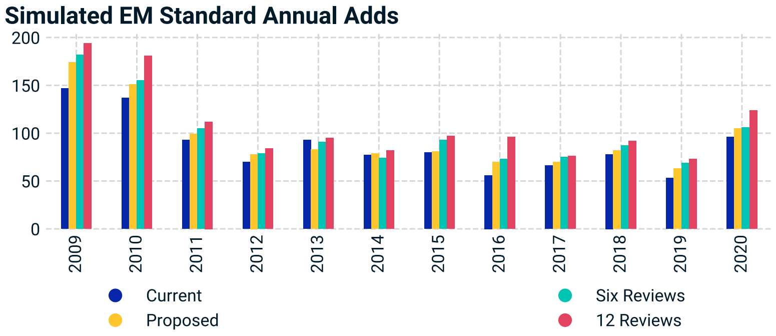


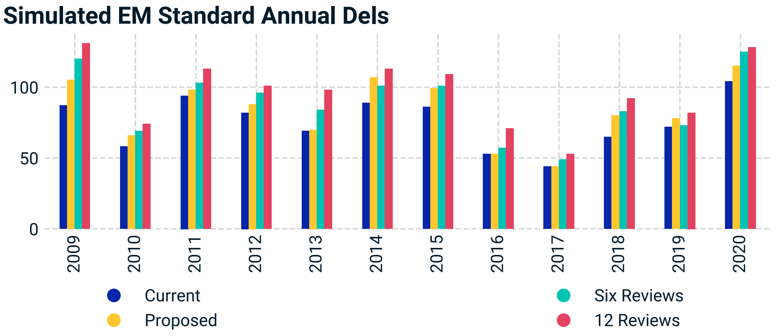
- Higher annual number of additions and deletions across all scenarios compared to the current rebalancing schedule

Historical Annual Number of Adds/Dels



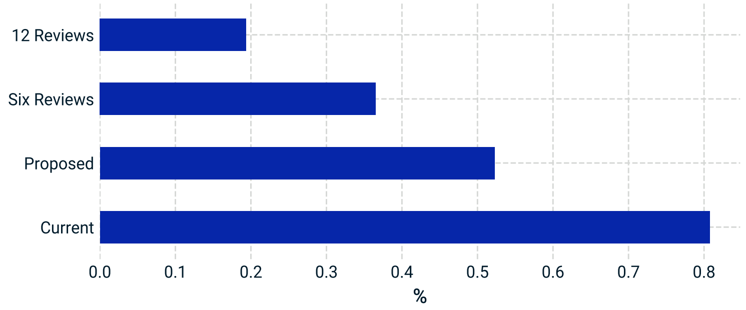




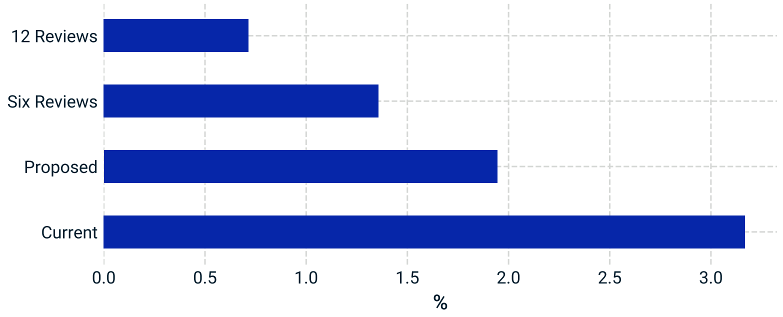


Average Turnover at Each Comprehensive Index Review

Simulated DM Standard Average Index Review Turnover

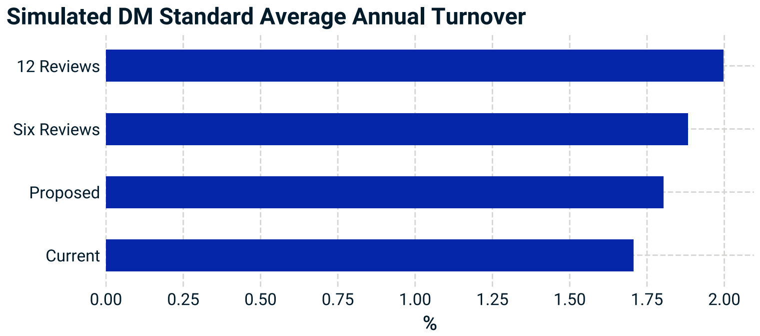


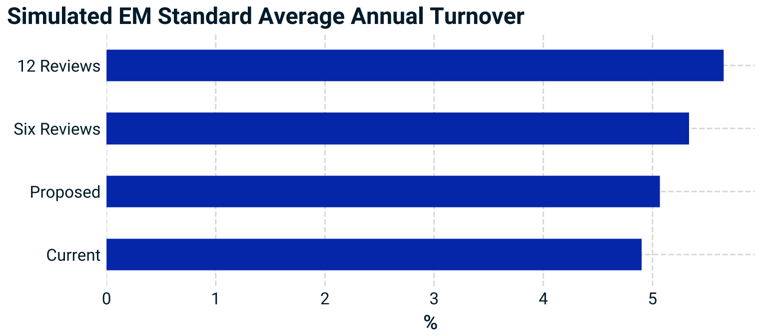
Simulated EM Standard Average Index Review Turnover



- Lower average turnover at each comprehensive index review across all scenarios compared to the current rebalancing schedule

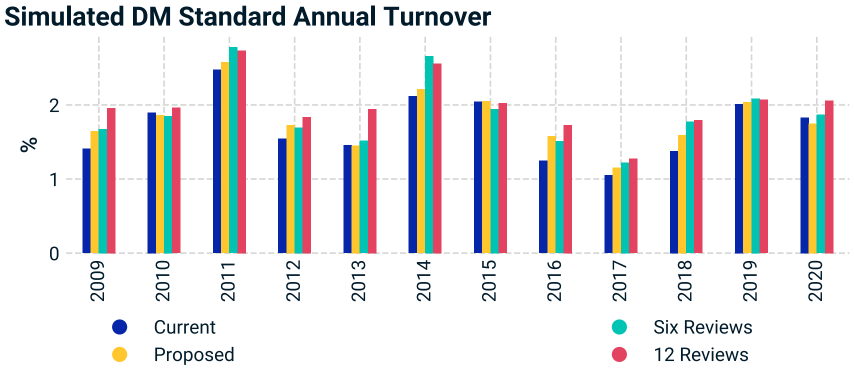
Average Annual Turnover

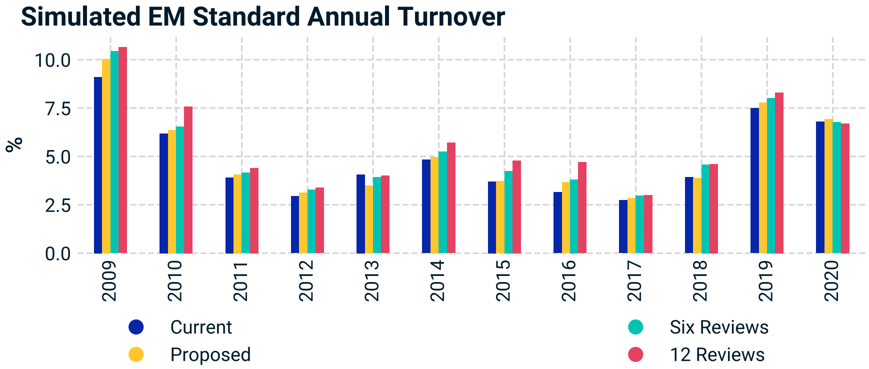




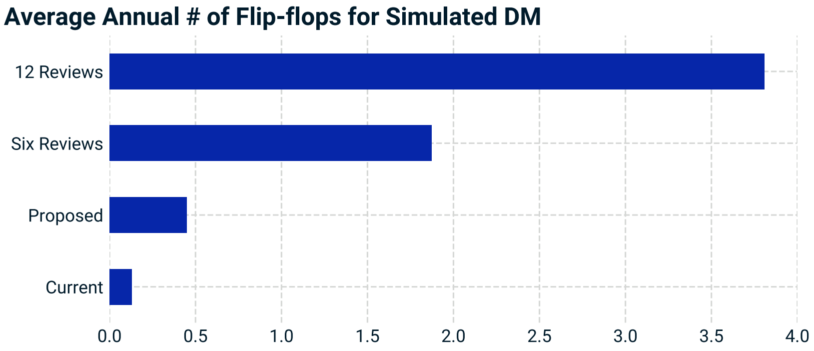
- Higher average annual turnover at each comprehensive index review across all scenarios compared to the current rebalancing schedule

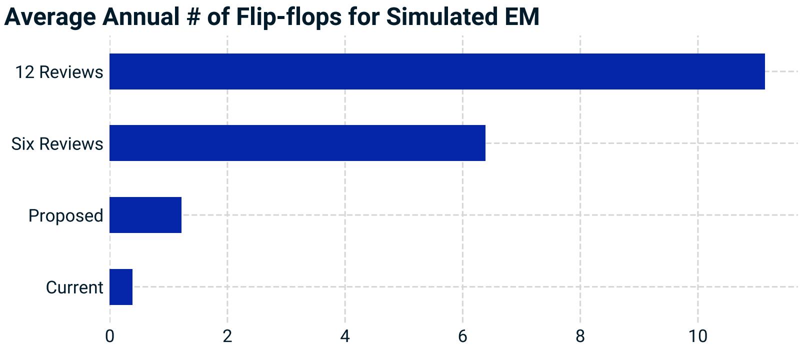
Historical Annual Turnover





Reverse Turnover





- Number of flip-flops within a year would increase substantially for index review frequencies higher than quarterly

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