

Consultation on Introducing Quarterly Comprehensive Index Reviews for Non-Market Capitalization Weighted Indexes

SUPPORTING MATERIAL FOR SURVEY

May 2022

This survey may or may not lead to the implementation of any or all of the proposed changes in the highlighted or any other MSCI indexes. Survey feedback will remain confidential. MSCI may publicly disclose feedback if specifically requested by specific market participants. In that case, the relevant feedback would be published together with the final result of the survey.

Background

- In June 2021, after an extensive consultation, MSCI announced a shift to a **Quarterly Comprehensive Index Review (QCIR)** schedule for the MSCI Global Investable Market Indexes (GIMI) following positive feedback from market participants.
- As an extension to this, MSCI proposes to change the rebalancing schedule from semi-annual to quarterly for select non-market capitalization weighted indexes:
 - MSCI Adaptive Capped Indexes Methodology
 - MSCI Equal Country Weighted Indexes Methodology
 - MSCI Equal Sector Weighted Indexes Methodology
 - MSCI Size Tilt Indexes Methodology
- For the MSCI Islamic Indexes Methodology, the proposal is to change the business screening review from annual to quarterly.
- MSCI welcomes feedback from the investment community on this topic until June 24, 2022. MSCI will announce the results of this consultation on or before July 15, 2022.

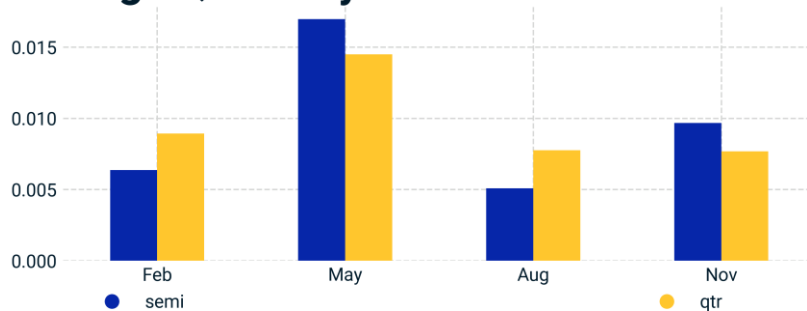
GIMI Consultation - Recap

Benefits of moving GIMI to QCIR (1/2)

- A key objective of the shift to QCIR schedule is to reduce the size of each comprehensive index review by spreading changes more evenly across each of the QCIR periods while adhering to and maintaining methodology objectives.
- Based on simulations from June 2008 to December 2021, we observed by shifting to QCIR:

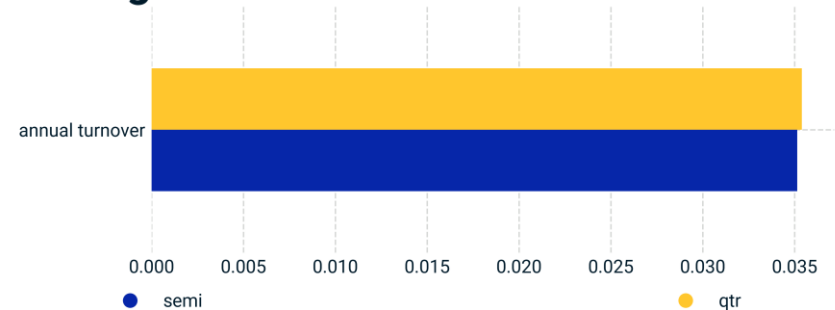
Turnover spread more evenly across quarters

Average Quarterly Turnover



With limited impact on average annual turnover

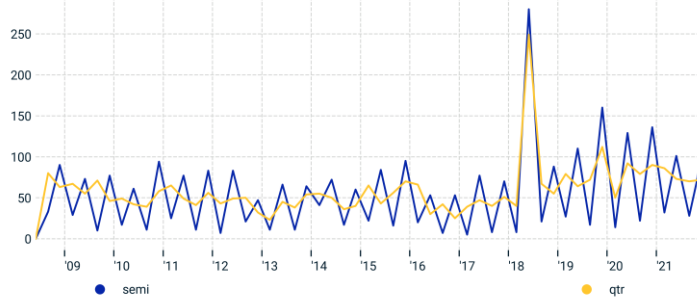
Average Annual Turnover



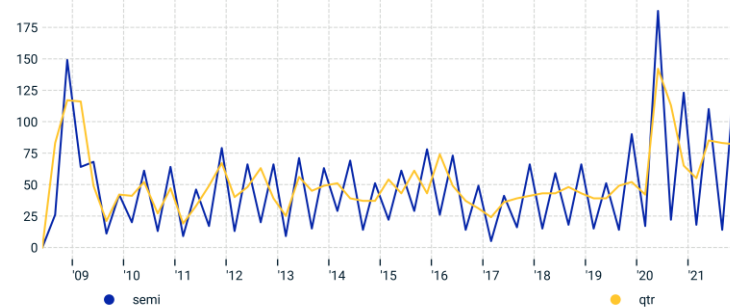
Benefits of moving GIMI to QCIR (2/2)

The number of additions and deletions per index review is more even

Additions ACWI

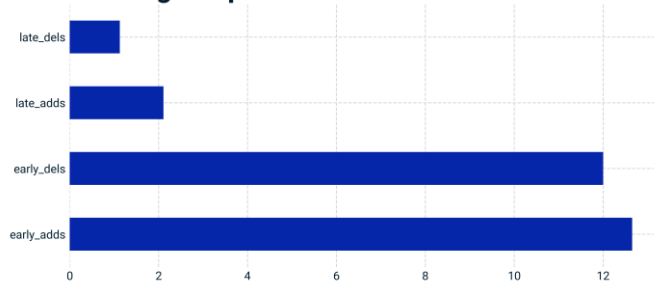


Deletions ACWI



More timely reflection of index review additions and deletions

ACWI Average Representativeness



- On average, based on the simulation results, there are 12.65 additions and 12 deletions that were made earlier* in the QCIR simulation (qtr) than in the simulation based on existing rebalancing schedule (semi).

*The additions or deletions in the quarterly scenario that happened 1-3 rebalance earlier than the addition or deletion in the base scenario. Late additions / late deletions may be due to later migrations in or out because of differences in the size-segment cutoffs and target number of companies

Methodology Review Process & Proposal

Methodology Review Process

- MSCI performed historical analysis between June 2008 and December 2021 for all selected methodologies except Islamic indexes which was performed between May 2018 and Nov 2021*, comparing a simulated QCIR schedule with the existing rebalancing schedule for selected indexes. Parent (GIMI) Indexes are also simulated using a QCIR schedule.
- As with the QCIR review of GIMI methodologies, the analysis was focused on the following:
 - **Objectivity:** Adherence with the methodology objective
 - **Turnover:** Average quarterly/annual turnover at each index review
 - **Representativeness:** Methodology requirement of full representation of the Parent Index
- Across these methodologies reviewed, the proposal is supported by the following:
 - More consistent representation of the methodology targets along with the parent representativeness
 - Reduced average turnover at Semi-Annual Index Reviews (SAIRs)
 - Annual turnover more evenly distributed across QCIRs but with a moderate increase in the total turnover

Summary of Proposal to move to QCIR

Methodology Name	Proposal Comments*
MSCI Adaptive Capped Indexes Methodology	Quarterly rebalancing would result in the consideration of parent additions at QIRs and more frequent capping of the constituents at desired level
MSCI Equal Country Weighted Indexes Methodology	The proposal addresses prolonged country weight dispersions, resulting when the associated GIMI Parent Index moves to QCIR, by equal weighting the country weights more frequently
MSCI Equal Sector Weighted Indexes Methodology	The proposal addresses prolonged sector weight dispersions, resulting when the associated GIMI Parent Index moves to QCIR, by equal weighting the sector weights more frequently
MSCI Size Tilt Indexes Methodology	Quarterly rebalancing results in the consideration of parent additions at QIRs and hence more alignment with the associated Parent Index without impacting size factor
MSCI Islamic Index Series Methodology	Changing business screening review from annual to quarterly results in more timely reflection of Sharia compliance with a minimal impact on simulated turnover

MSCI Adaptive Capped Indexes Methodology

- **Methodology:**

- The MSCI Adaptive Capped Indexes follow a capping approach where the cap level on the constituent weights of the larger stocks at each semi-annual rebalance is not explicitly specified but is instead determined by the pre-defined maximum weight multiple applied to the smaller (uncapped) constituents of the Parent Index
- The level of the cap for each index would change whenever the associated Parent Index is rebalanced (quarterly)

- **Rationale for Recommendation***

- **Index objective:** Aligns with the methodology objective that the indexes should be rebalanced with the same frequency as the Parent Index
- **Turnover:** Although the average annual turnover increased moderately when moving to QCIR, it is observed that there is a reduction in turnover at SAIRs along with more consistent turnover at QIRs
- **Representativeness:** Quarterly rebalancing would result in the consideration of parent additions at QIRs and hence more frequent and timely capping of the constituents at desired level

MSCI Adaptive Capped Indexes - Key Metrics Comparison

	MSCI World Adaptive Capped 2.0x SA	MSCI World Adaptive Capped 2.0x Q
Total Return* (%)	7.6	7.6
Total Risk (%)	17.3	17.4
Return / Risk	0.45	0.45
Sharpe Ratio	0.42	0.42
Active Return (%)	0.0	-0.0
Tracking Error (%)	0.0	0.2
Information Ratio	nan	-0.06
Historical Beta	1.00	1.01
Number of Constituents***	1681	1693
	MSCI EM(emerging Markets)adaptive Capped SA	MSCI EM(emerging Markets)adaptive Capped Q
Total Return* (%)	3.4	3.5
Total Risk (%)	21.5	21.6
Return / Risk	0.16	0.16
Sharpe Ratio	0.14	0.14
Active Return (%)	0.0	0.1
Tracking Error (%)	0.0	0.3
Information Ratio	nan	0.21
Historical Beta	1.00	1.00
Number of Constituents***	906	919



These Key Metrics are derived from simulation and the details are available in the Appendix

Information Classification: GENERAL

MSCI Equal Country Weighted & MSCI Equal Sector Weighted Indexes Methodology

- **Methodology:**

- In MSCI Equal Country and Sector Weighted Indexes, each Country and Global Industry Classification Standard (GICS®) sector has the same weight at initial construction and at each rebalancings. Between semi-annual index reviews, these weights deviate from equal weights depending on the relative performance of countries and sectors

- **Rationale for Recommendation*:**

- **Index objective:** Addressing the prolonged country and sector weight dispersion in the respective methodologies when the associated GIMI Parent Index moves to QCIR
- **Turnover:** Although the average annual turnover increased moderately when moving to QCIR, it is observed that there is a reduction in turnover at SAIRs along with more consistent turnover at QIRs
- **Representativeness:** Equal weighting country and sector weights in respective methodologies more frequently accounts for parent changes every quarter

MSCI Equal Sector Weighted Indexes - Key Metrics Comparison

	MSCI Emerging Markets Equal Sector WT SA	MSCI Emerging Markets Equal Sector WT QTR
Total Return* (%)	4.1	3.9
Total Risk (%)	19.6	19.8
Return / Risk	0.21	0.20
Sharpe Ratio	0.18	0.17
Active Return (%)	0.0	-0.2
Tracking Error (%)	0.0	0.3
Information Ratio	nan	-0.58
Historical Beta	1.00	1.01
Number of Constituents***	919	919

	MSCI EAFE Equal Sector Weighted SA	MSCI EAFE Equal Sector Weighted Q
Total Return* (%)	4.7	4.7
Total Risk (%)	16.9	17.0
Return / Risk	0.28	0.27
Sharpe Ratio	0.25	0.24
Active Return (%)	0.0	-0.1
Tracking Error (%)	0.0	0.2
Information Ratio	nan	-0.35
Historical Beta	1.00	1.01
Number of Constituents***	954	954



These Key Metrics are derived from simulation and the details are available in the Appendix

Information Classification: GENERAL

MSCI Equal Country Weighted Indexes - Key Metrics Comparison

	MSCI Emerging Markets Equal Country Weig SA	MSCI Emerging Markets Equal Country Weig Q
Total Return* (%)	2.3	2.4
Total Risk (%)	20.9	20.9
Return / Risk	0.10	0.10
Sharpe Ratio	0.07	0.08
Active Return (%)	0.0	0.1
Tracking Error (%)	0.0	0.5
Information Ratio	nan	0.23
Historical Beta	1.00	1.00
Number of Constituents***	919	919

	MSCI EAFE Equal Country Weighted SA	MSCI EAFE Equal Country Weighted Q
Total Return* (%)	3.4	3.3
Total Risk (%)	20.3	20.4
Return / Risk	0.18	0.17
Sharpe Ratio	0.15	0.14
Active Return (%)	0.0	-0.1
Tracking Error (%)	0.0	0.2
Information Ratio	nan	-0.52
Historical Beta	1.00	1.00
Number of Constituents***	954	954



These Key Metrics are derived from simulation and the details are available in the Appendix

Information Classification: GENERAL

MSCI Size Tilt Indexes Methodology

- **Methodology:**

- The MSCI Size Tilt Indexes aim to capture the Low Size premium with a simple and transparent methodology while maintaining reasonably high trading liquidity and investment capacity by including all Parent Index constituents and weighting the constituents using the square root of their market capitalization weight

- **Rationale for Recommendation*:**

- **Index objective:** To ensure GIMI representation while maintaining the target factor when moving to QCIR
- **Turnover:** Although the average annual turnover increased moderately when moving to QCIR, it is observed that there is a reduction in the turnover at SAIRs along with more consistent turnover at QIRs
- **Representativeness:** Quarterly rebalancing results in the consideration of parent additions at QIRs and hence more alignment with the associated Parent Index

MSCI Size Tilt Indexes - Key Metrics Comparison

Key Metrics

	MSCI World Size Tilt SA	MSCI World Size Tilt Q
Total Return* (%)	12.7	12.6
Total Risk (%)	14.9	15.0
Return / Risk	0.85	0.84
Sharpe Ratio	0.78	0.78
Active Return (%)	0.0	-0.1
Tracking Error (%)	0.0	0.1
Information Ratio	nan	-0.56
Historical Beta	1.00	1.00
Number of Constituents***	1675	1686

MSCI Islamic Indexes Methodology

- **Methodology:**

- The MSCI Islamic Indexes excludes all non-Sharia-compliant securities through business screening review and financial ratio screening

- **Recommendation:**

- The proposal is to change the business screening review from Annual (May) to Quarterly

- **Rationale for Recommendation:**

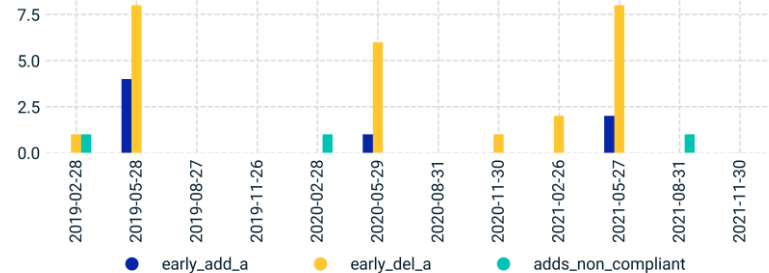
- **Turnover:** The average annual turnover increased moderately
- **Flip-flop*:** The number of flip flops per rebalance increased moderately
- **Representativeness:** Moving to a quarterly business screening review improves index representativeness by deleting non-compliant securities and adding compliant securities earlier
- This also aligns with the financial ratios screening, which is already applied on a quarterly basis

MSCI Islamic Indexes - Index Representativeness

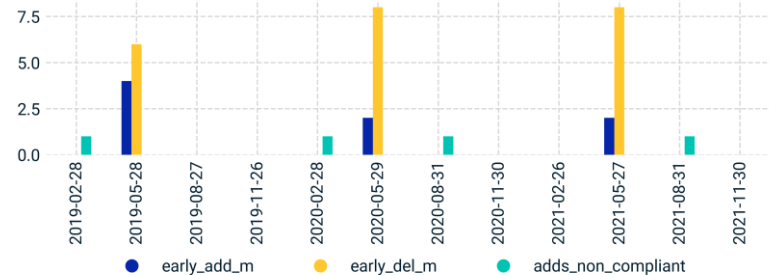
- The charts show the potential benefits, based on simulated results, of moving to a quarterly schedule in terms of a timelier reflection of company financials and their respective Sharia compliance
 - Moving to a quarterly schedule allows more timely deletion (yellow) of non-compliant names and addition (blue) of compliant names
 - It also ensures that additions (green) are added based on the latest business screening results (not from the results of the annual review)

	Islamic A	Islamic M
Early Adds (avg per year)	1.75	2.00
Early Deletes (avg per year)	6.50	5.50
Total (avg per year)	8.25	7.50
Business non-compliant additions (total)	3	5

ACWI Islamic A Representativeness

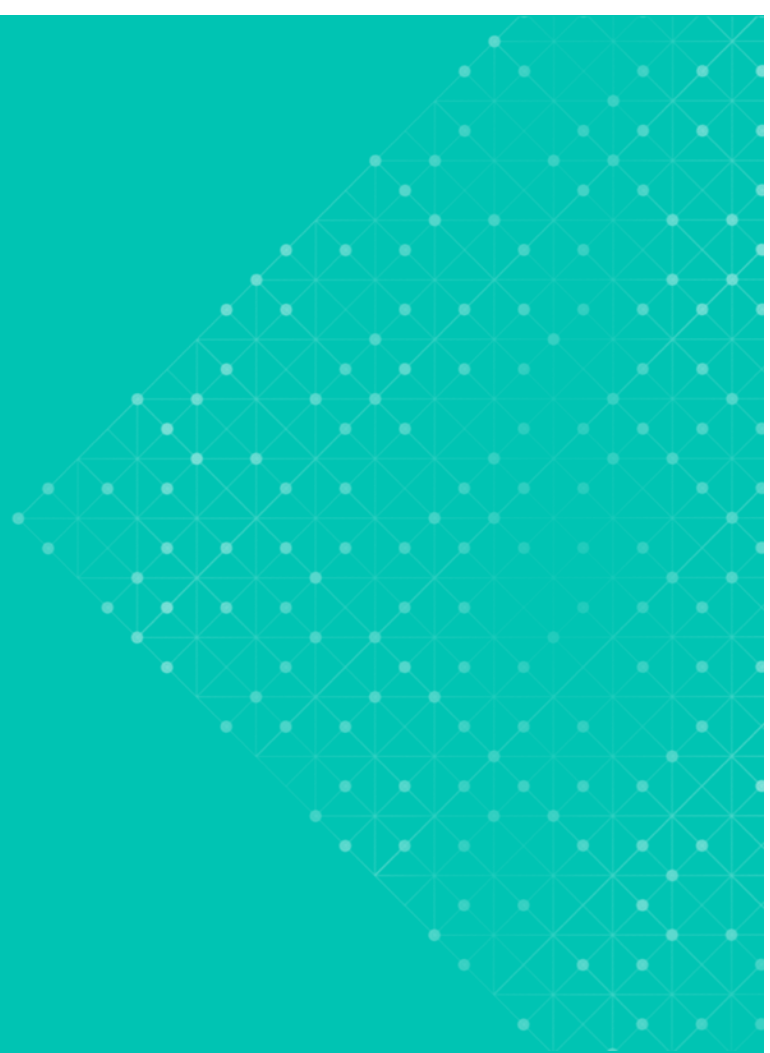


ACWI Islamic M Representativeness



* The charts show the number of changes (e.g., additions or deletions) observed in the specific quarter under the base scenario that have been reflected in earlier 3 quarters under the quarterly scenario.

Appendix



Simulation Details and Underlying Assumptions

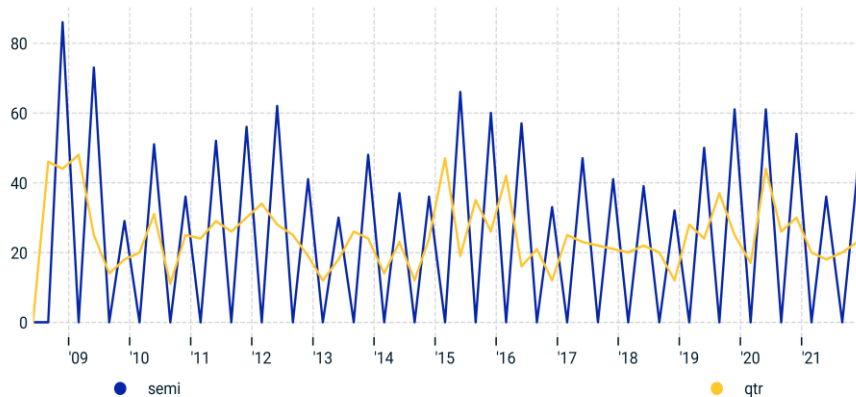
- The simulations were performed over the period from June 2008 till December 2021 except Islamic Indexes which were simulated from May 2018 to Nov 2021
- “semi” scenario refers to 2 Index Review schedules in May and November as per current rebalancing schedule while “qtr” refers to 4 simulated Index Review schedules in February, May, August and November
- The “semi” scenario assumes the 2 SAIR rebalancing schedule but does not correspond to the actual rebalancing results in live indexes and is based on underlying QCIR based Parent GIMI Indexes
- Assumptions for simulated GIMI QCIR can be found on the slide 14 of the GIMI QCIR consultation document posted at <https://www.msci.com/index-consultations>
- Any changes due to market reclassifications were taken into account in respective regional indexes

MSCI Adaptive Capped Indexes Methodology

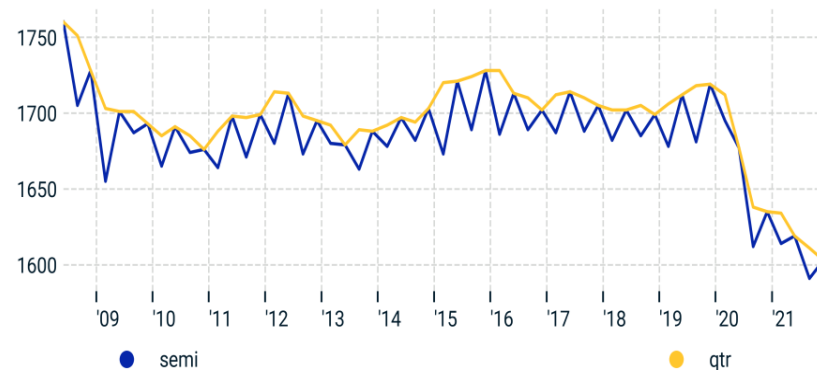
World Adaptive Capped – Number of Constituents Comparison

More timely reflection of index review additions

Additions

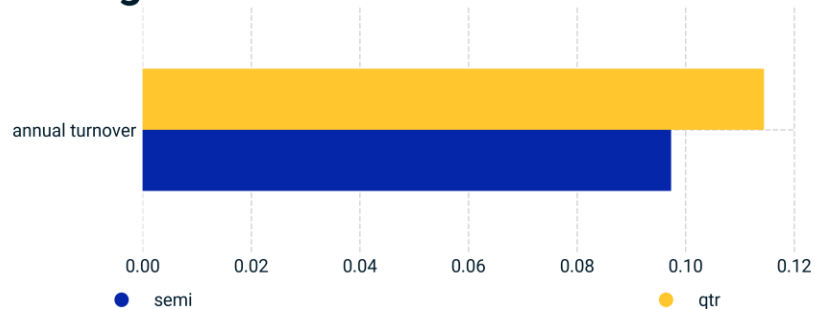


Number of Constituents

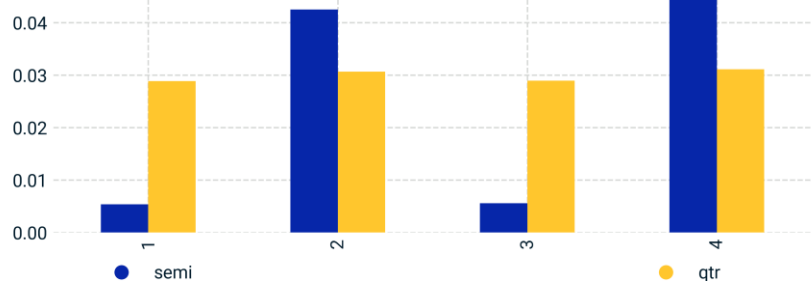


World Adaptive Capped - Turnover

Average Annual Turnover

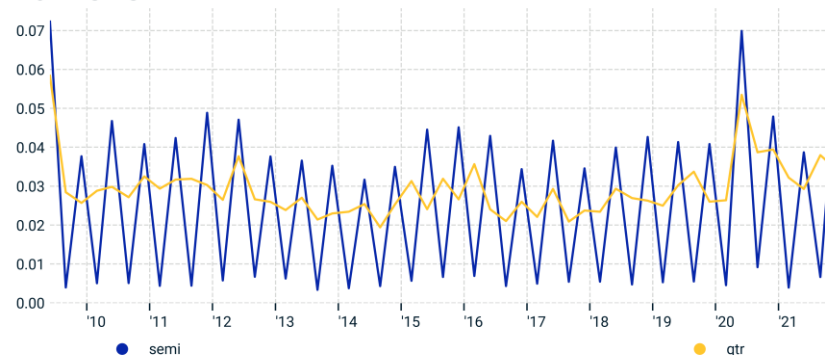


Average Quarterly Turnover



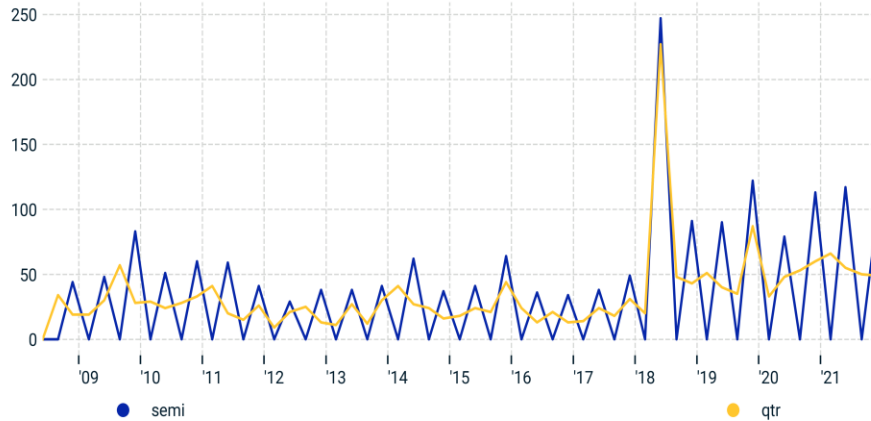
Turnover spread more evenly across quarters with slight impact on annual turnover.

Turnover

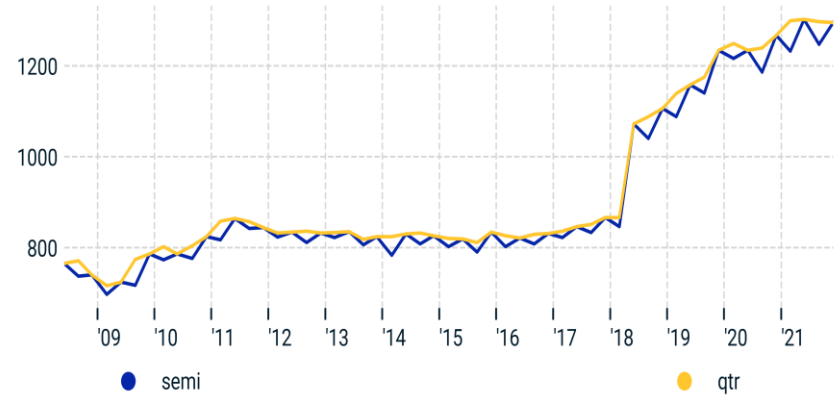


EM Adaptive Capped - Number of Constituents Comparison

Additions

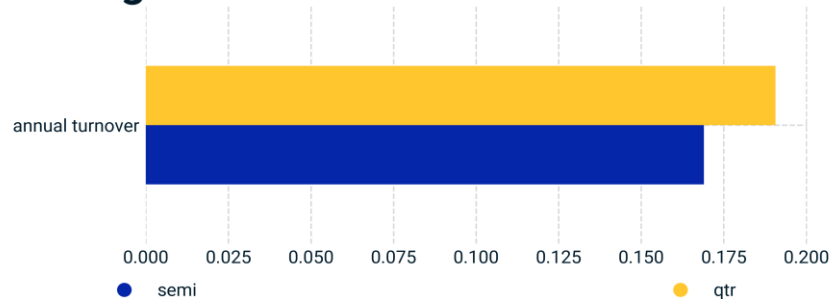


Number of Constituents

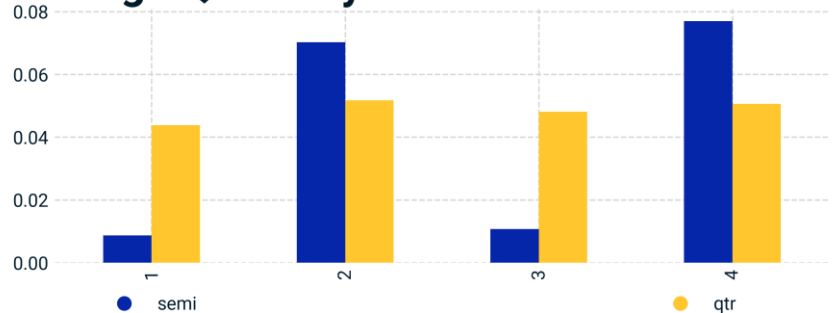


EM Adaptive Capped - Turnover

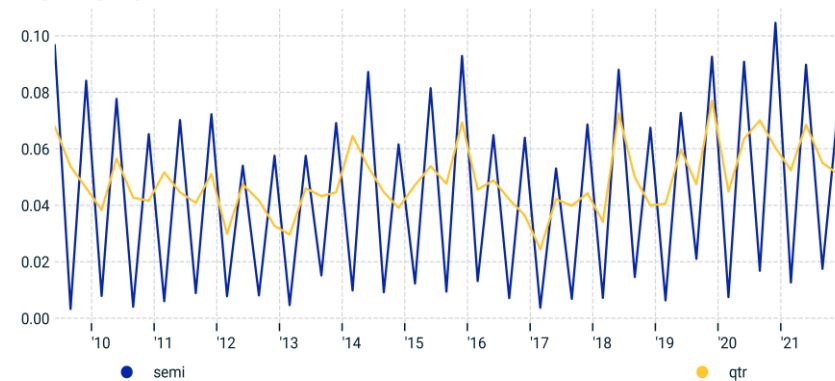
Average Annual Turnover



Average Quarterly Turnover



Turnover

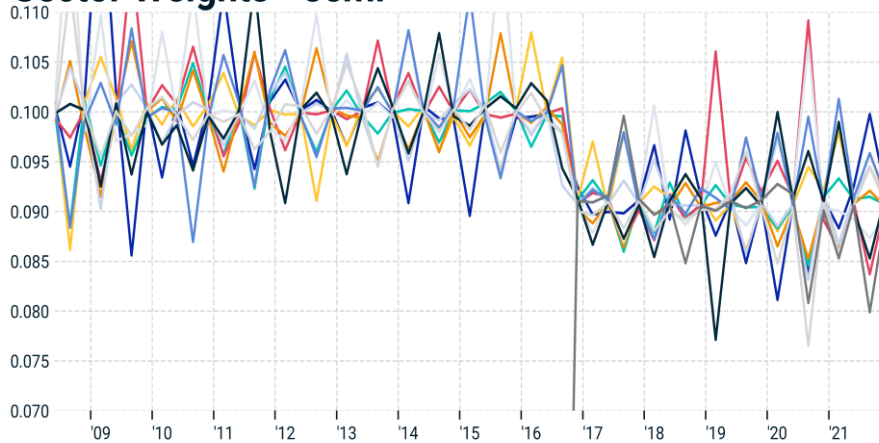


MSCI Equal Country Weighted & MSCI Equal Sector Weighted Indexes Methodology

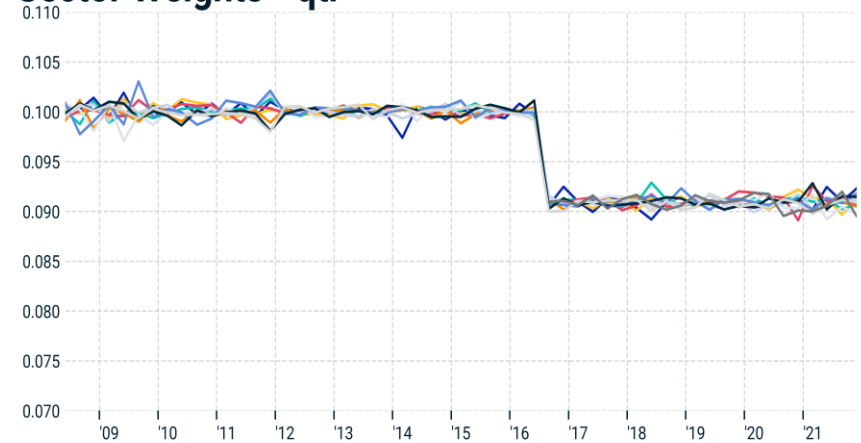
EM Equal Sector Weighted Index – Sector Weights per Quarter

Addresses prolonged sector weight* dispersion

Sector Weights - semi



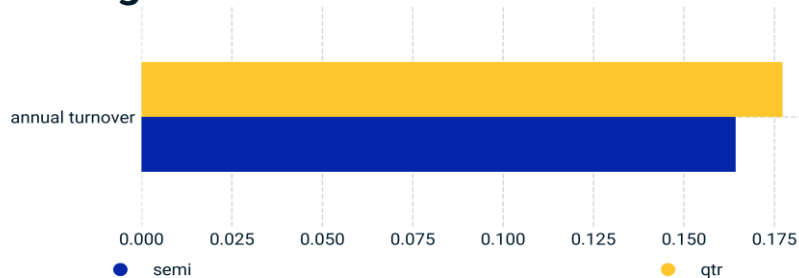
Sector Weights - qtr



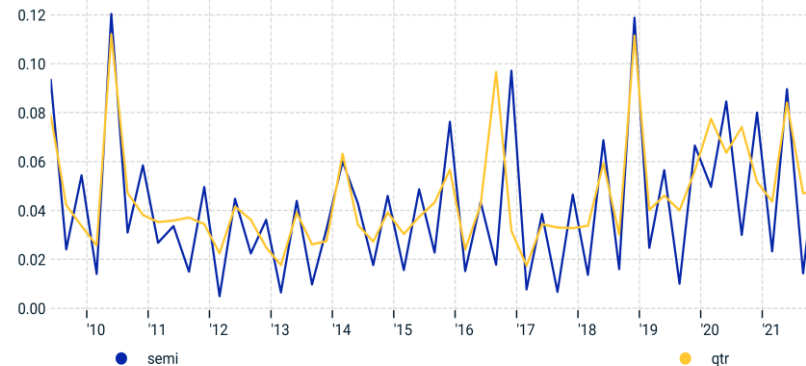
Charted lines represent aggregate sector weights at each quarter

EM Equal Sector Weighted Index - Turnover

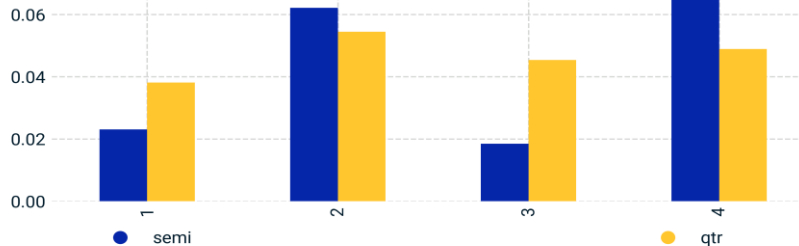
Average Annual Turnover



Turnover



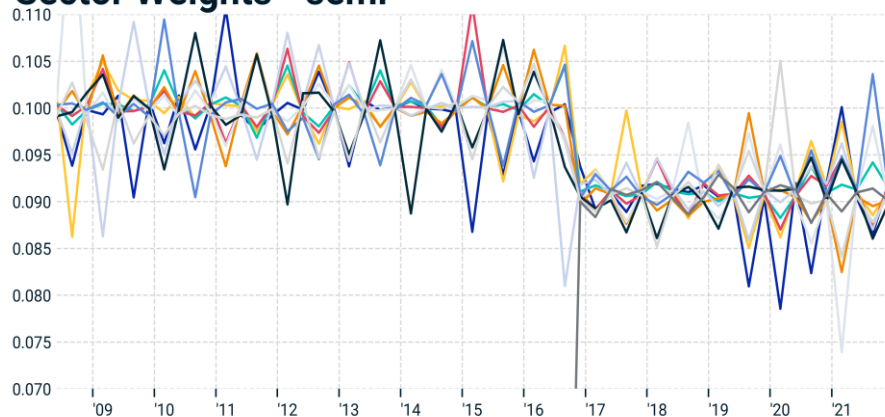
Average Quarterly Turnover



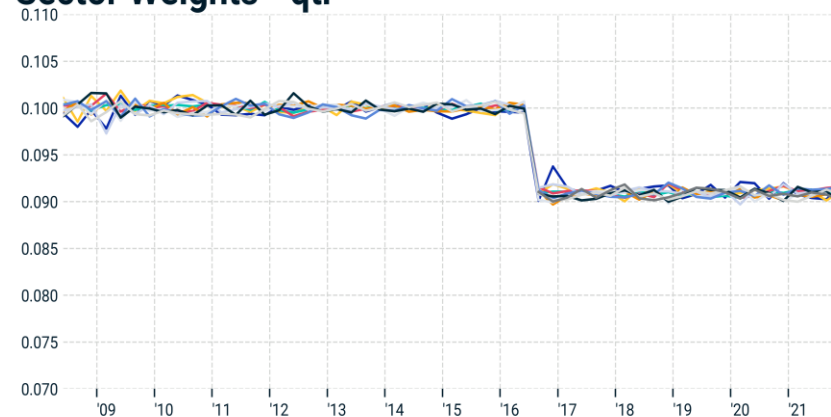
EAFE Equal Sector Weighted Index – Sector Weights per Quarter

Addresses prolonged sector weight* dispersion

Sector Weights - semi



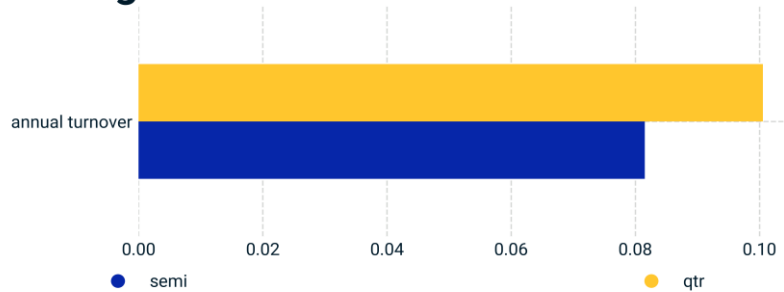
Sector Weights - qtr



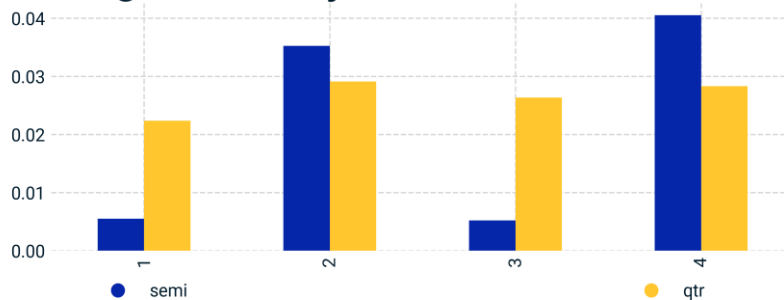
Charted lines represent aggregate sector weights at each quarter

EAFE Equal Sector Weighted Index – Turnover

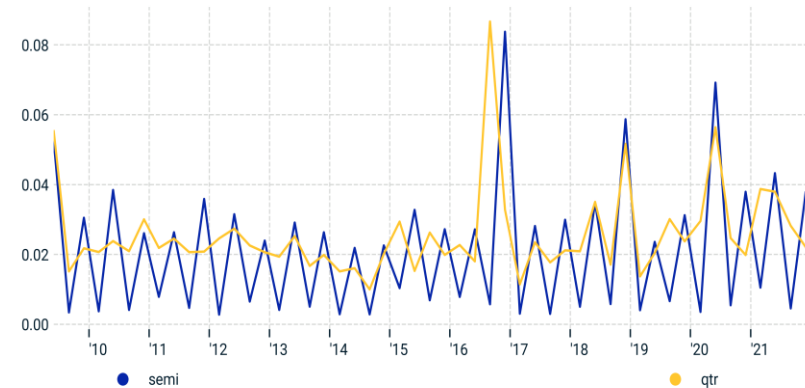
Average Annual Turnover



Average Quarterly Turnover



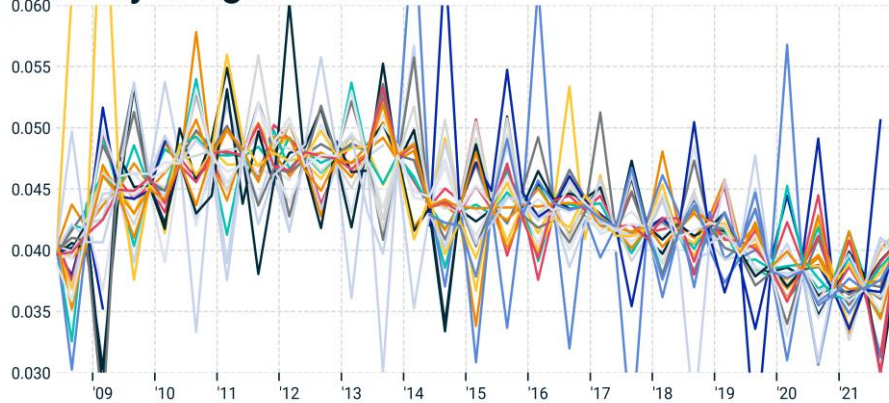
Turnover



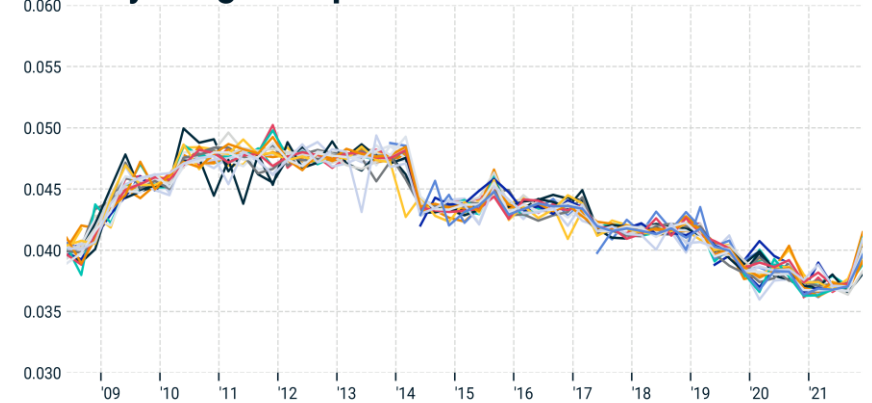
EM Equal Country Weighted Index – Country Weights per Quarter

Addresses prolonged country weight* dispersion

Country Weights - semi



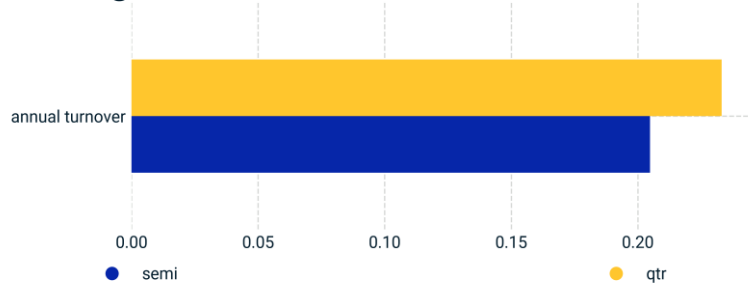
Country Weights - qtr



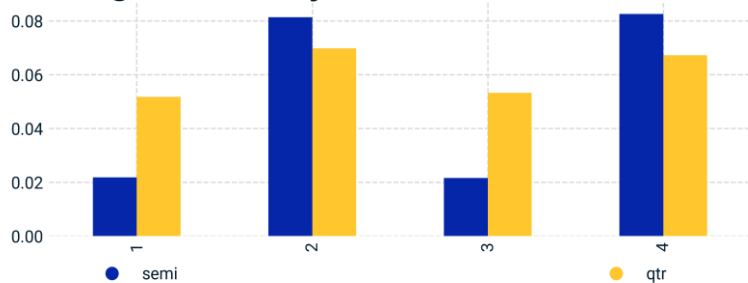
Charted lines represent aggregate country weights at each quarter

EM Equal Country Weighted Index – Turnover

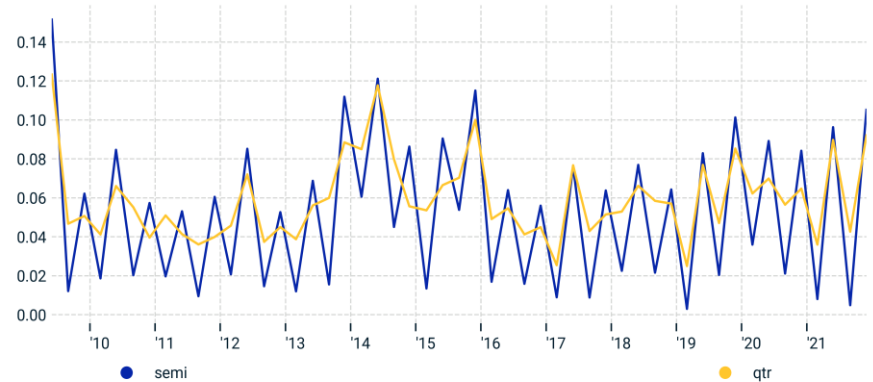
Average Annual Turnover



Average Quarterly Turnover



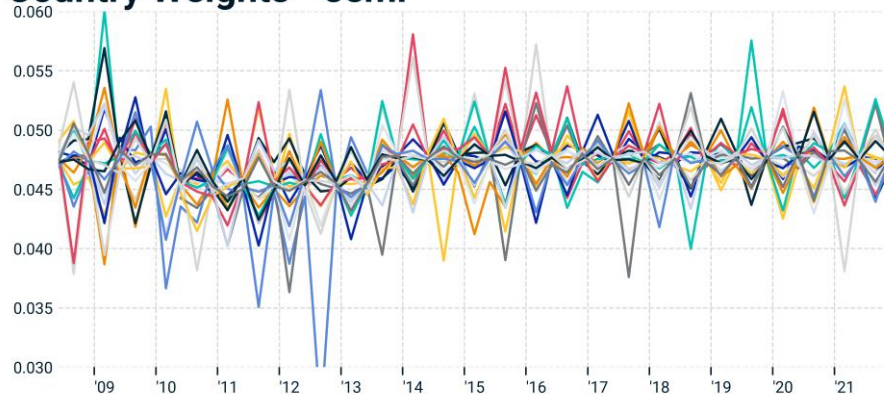
Turnover



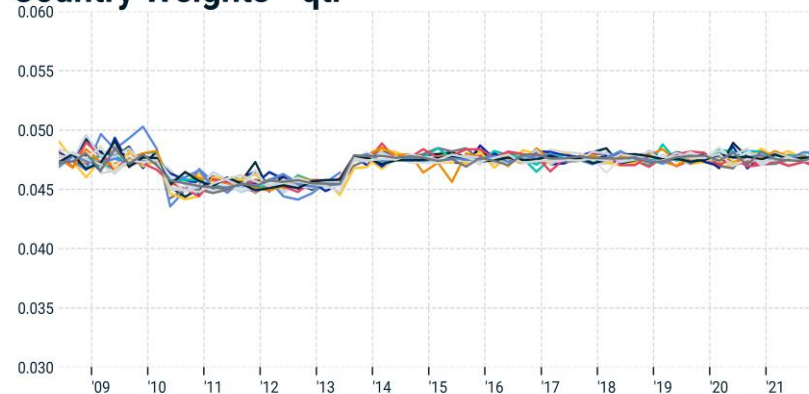
EAFE Equal Country Weighted Index – Country Weights per Quarter

Addresses prolonged country weight* dispersion

Country Weights - semi



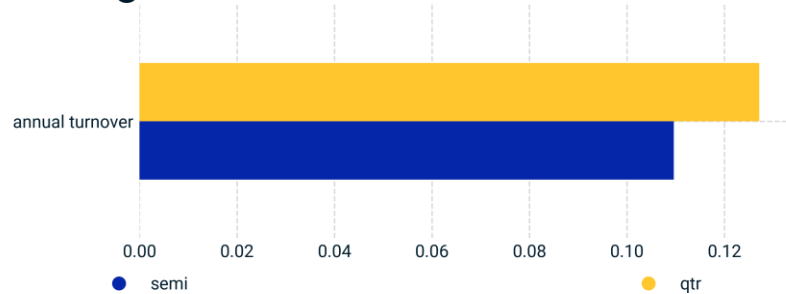
Country Weights - qtr



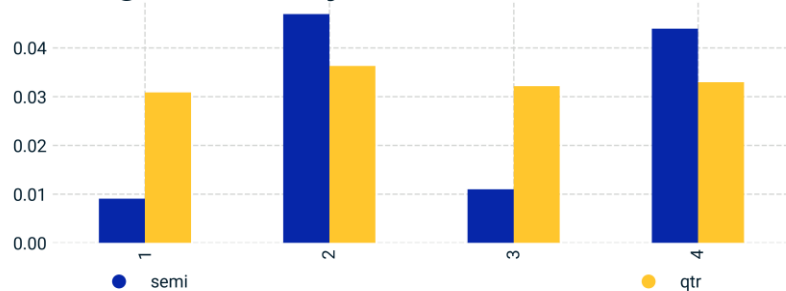
Charted lines represent aggregate country weights at each quarter

EAFE Equal Country Weighted Index – Turnover

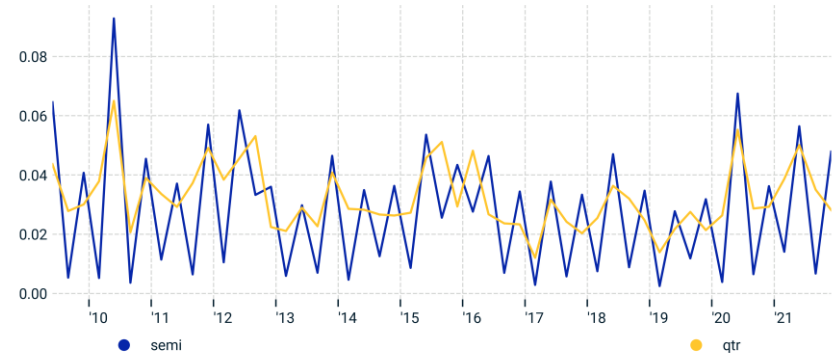
Average Annual Turnover



Average Quarterly Turnover



Turnover

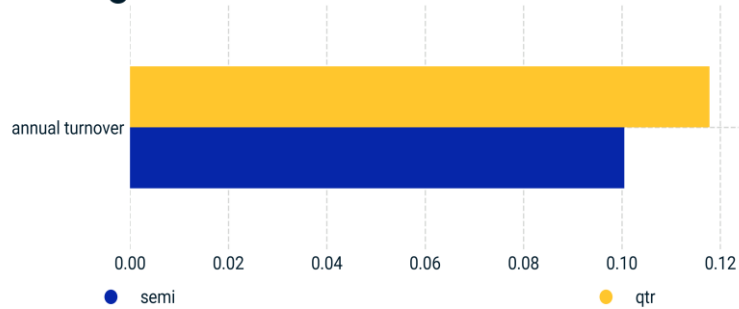


MSCI Size Tilt Indexes Methodology

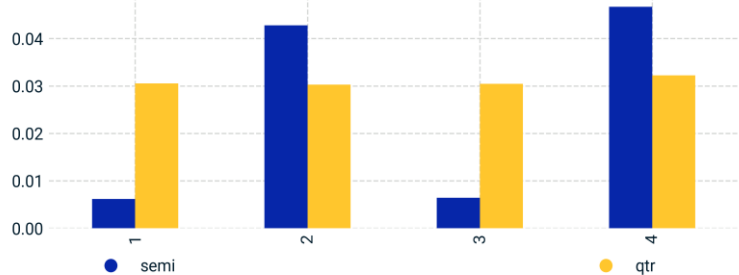


World Size Tilt - Turnover

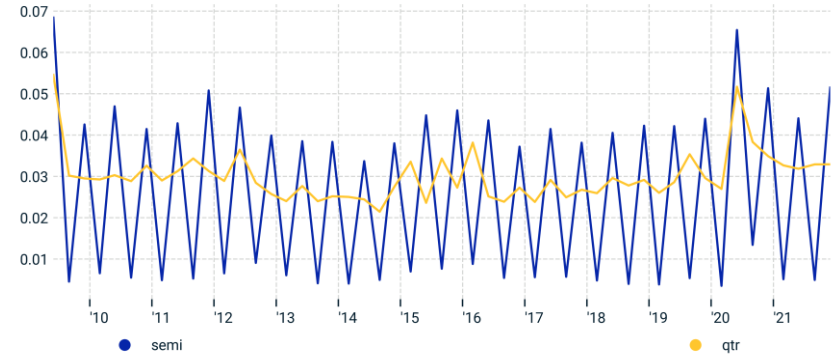
Average Annual Turnover



Average Quarterly Turnover

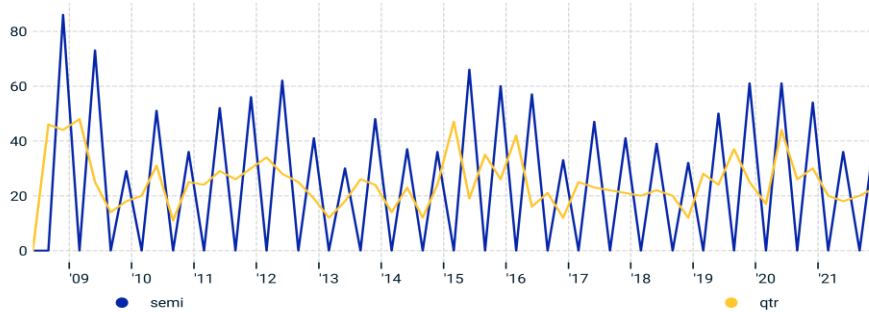


Turnover

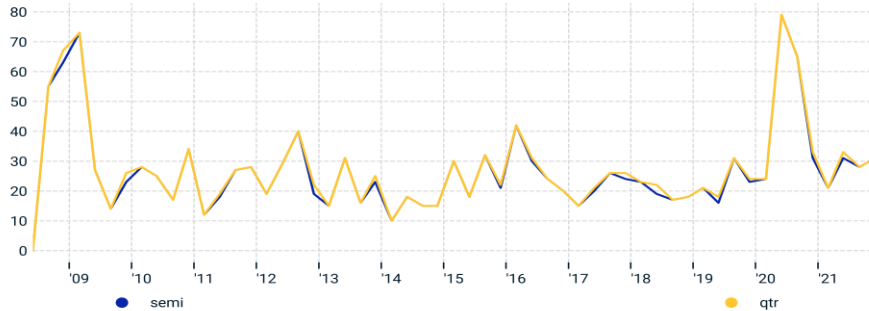


World Size Tilt – Number of Constituents Comparison

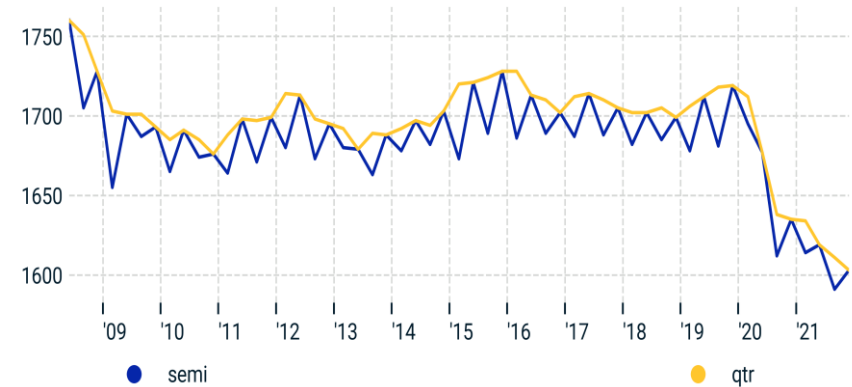
Additions



Deletions



Number of Constituents



MSCI Islamic Indexes Methodology



Proposed Methodology Enhancement – Quarterly Application of Business Screening Review

- MSCI proposes to change the business activity screening frequency from Annual (May) to Quarterly
 - This also aligns with the financial ratios screening which is already applied on a quarterly basis

Rebalance	Current Business Screening Universe	Proposed Business Screening Universe
May	Full universe	Full universe
August	- Parent additions from last quarter - IPOs / Spin offs / Mergers - Intra quarter deletions (GICS changes) - Securities with GICS code changes (not to an ineligible GICS)	Full universe
November		Full universe
February		Full universe

Annual Business Screening Review	Quarterly Business Screening Review
- Securities that are no longer business compliant based on latest data may still be added as they are marked to be compliant from the last annual review	- Changes to the financials of a company are reflected in the next quarterly index review, instead of waiting until the next annual review

Simulation Details and Summary of Impact

- Simulation is conducted from May 2018 to Nov 2021 for the MSCI ACWI Islamic and MSCI ACWI Islamic M Indexes
 - The simulation aims to show the impact of changing the schedule of the business screening review from annual to quarterly
 - The simulation does not consider the impact of the change in the Parent GIMI Index to QCIR
 - The base scenario reflects annual business screening review in May, while the quarterly scenario reflects quarterly business screening review
- Moving to a quarterly business screening review improves index representativeness by
 - Deleting non-compliant securities and adding compliant securities earlier,
 - Helping to prevent addition of already non-compliant securities
- Based on simulation, the impact on average annual turnover is less than 1%

Flip Flop (per rebalancing)

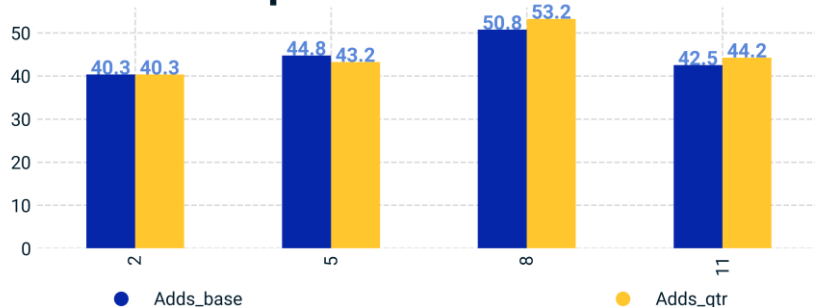
- Flip flop is defined as a change in the opposite direction in terms of index addition or deletion in the next 3 rebalance
- In terms of flip flops at index level, as per simulations, the number of cases increases by around 1 case per rebalancing on average

Average Flip Flop

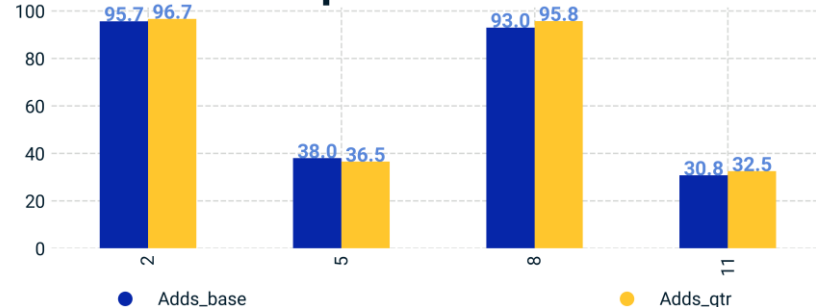


Average Additions

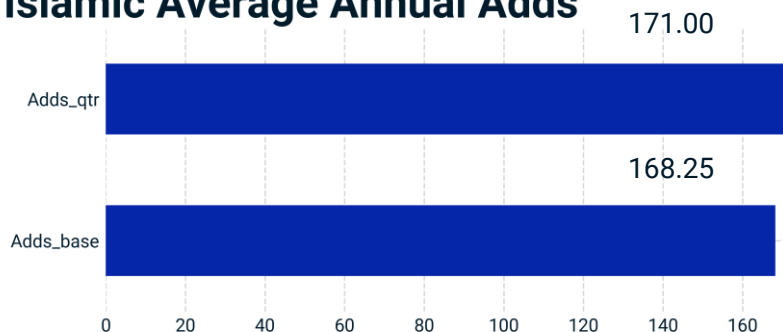
Islamic Adds per Rebalance



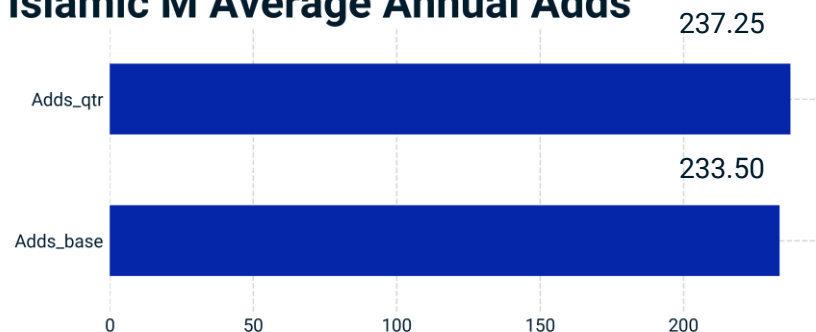
Islamic M Adds per Rebalance



Islamic Average Annual Adds

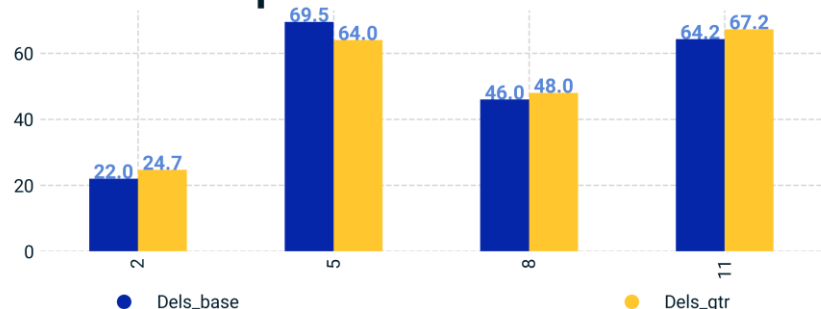


Islamic M Average Annual Adds

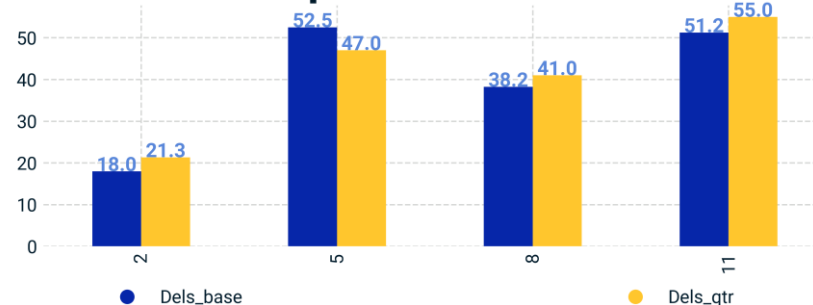


Average Deletions

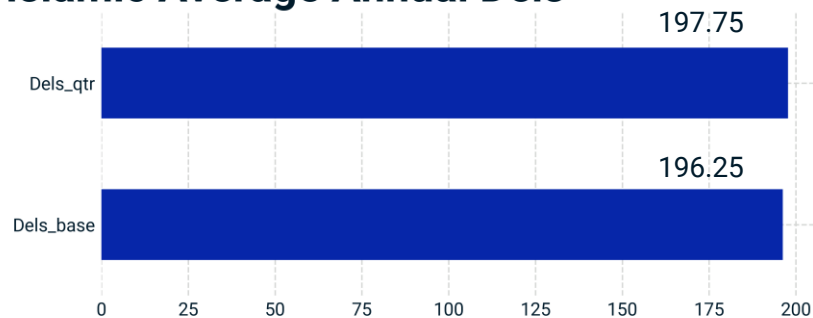
Islamic Dels per Rebalance



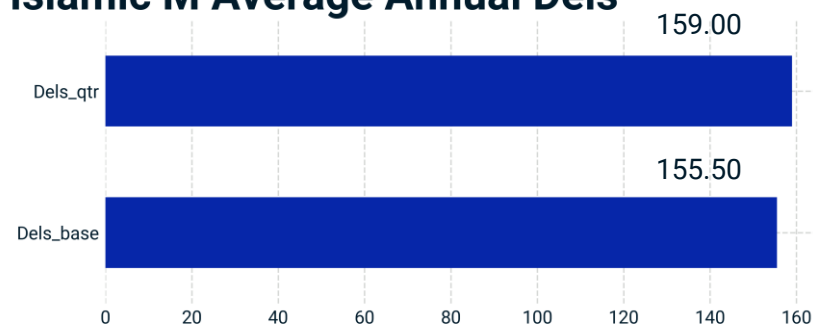
Islamic M Dels per Rebalance



Islamic Average Annual Dels

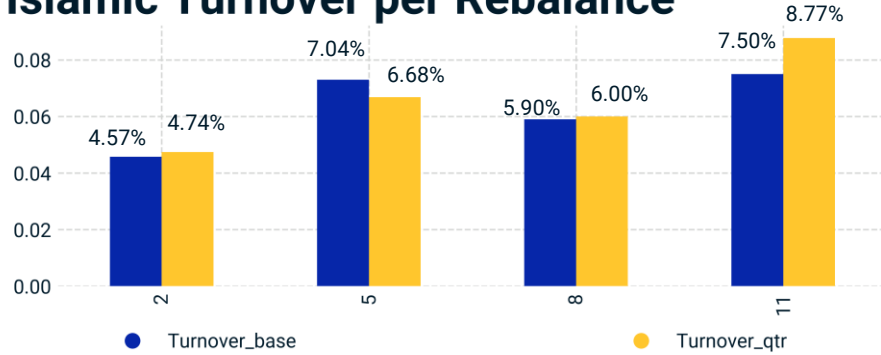


Islamic M Average Annual Dels

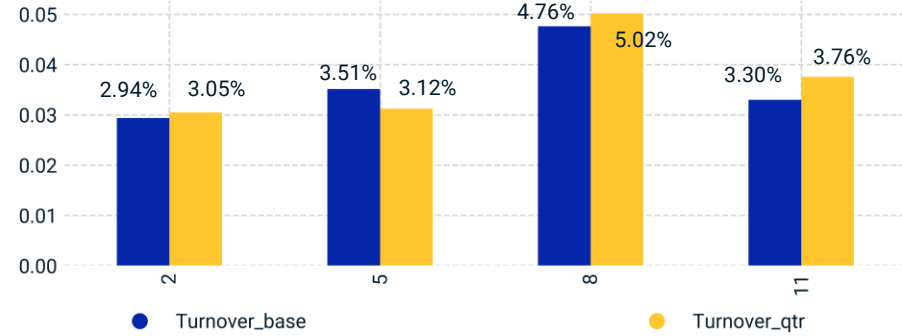


Turnover

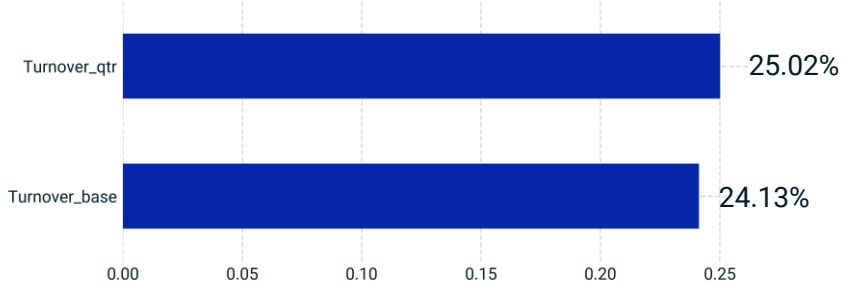
Islamic Turnover per Rebalance



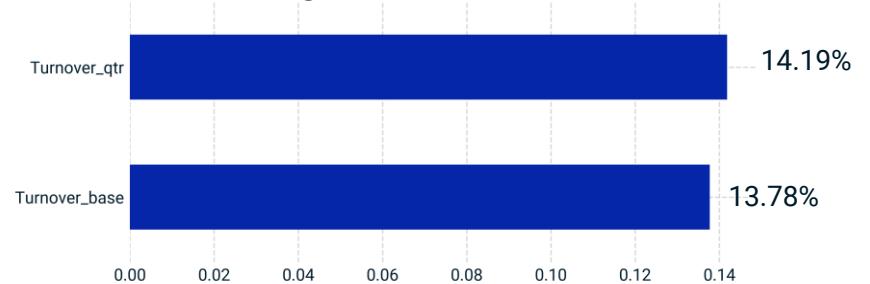
Islamic M Turnover per Rebalance



Islamic Average Annual Turnover



Islamic M Average Annual Turnover



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