

# MSCI INDEX CONSULTATION

Consultation on the Introduction of Limits to the Increase in  
Segment Number of Companies for the MSCI Global Investable  
Market Indexes

June 2015

# EXECUTIVE SUMMARY

- MSCI is considering introducing limits aimed at reducing turnover resulting from the re-assessment of the Segment Number of Companies at the time of the Semi-Annual Index Reviews (SAIRs) of the MSCI Global Investable Market Indexes (GIMI).
- Currently, there are no rules to limit increases in the Segment Number of Companies in certain cases. The proposed enhancement would limit increases in the Segment Number of Companies with the aim of reducing turnover by introducing analogous limits currently applicable to markets where a reduction in the Segment Number of Companies is required.
- The proposed limits intend to reduce the potential for high turnover when a significant increase in the Segment Number of Companies (“NOC”) is required, while allowing for the necessary adjustment to meet size and coverage requirements.
- MSCI welcomes feedback from the investment community on the proposed enhancement. MSCI will announce the results of the consultation on or before August 31, 2015.
- Please note that this consultation may or may not result in the implementation of the above mentioned methodological change.

# BACKGROUND: REMINDER ON SIZE AND COVERAGE INTEGRITY

In order to create size segments that can be meaningfully aggregated into composites, the individual Market Size Segments need to balance the following two objectives:

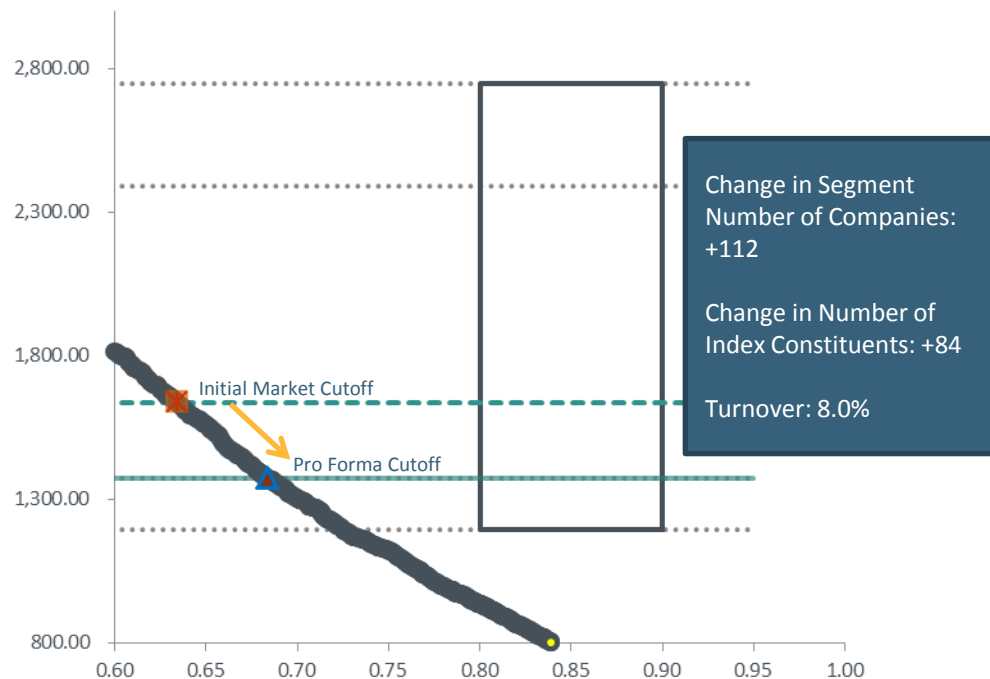
- *Achieving Global Size Integrity* by ensuring that, within a given size segment of a composite index, only companies of comparable and relevant sizes are included across all markets. This can be measured by looking at a size segment cutoff relative to a free float-adjusted market capitalization coverage target based on the Global Investable Equity Universe.
- *Achieving Consistent Market Coverage* by ensuring that each market's size segment is represented in its proportional weight in the composite universe. This can be measured by looking at a size segment cutoff relative to a consistent and comparable target size segment coverage within each market.

It is not possible to achieve both of these objectives consistently and simultaneously across all markets. In markets where both objectives cannot be met, achieving global size integrity is prioritized.

# SIGNIFICANT TURNOVER DUE TO INCREASE IN SEGMENT NUMBER OF COMPANIES

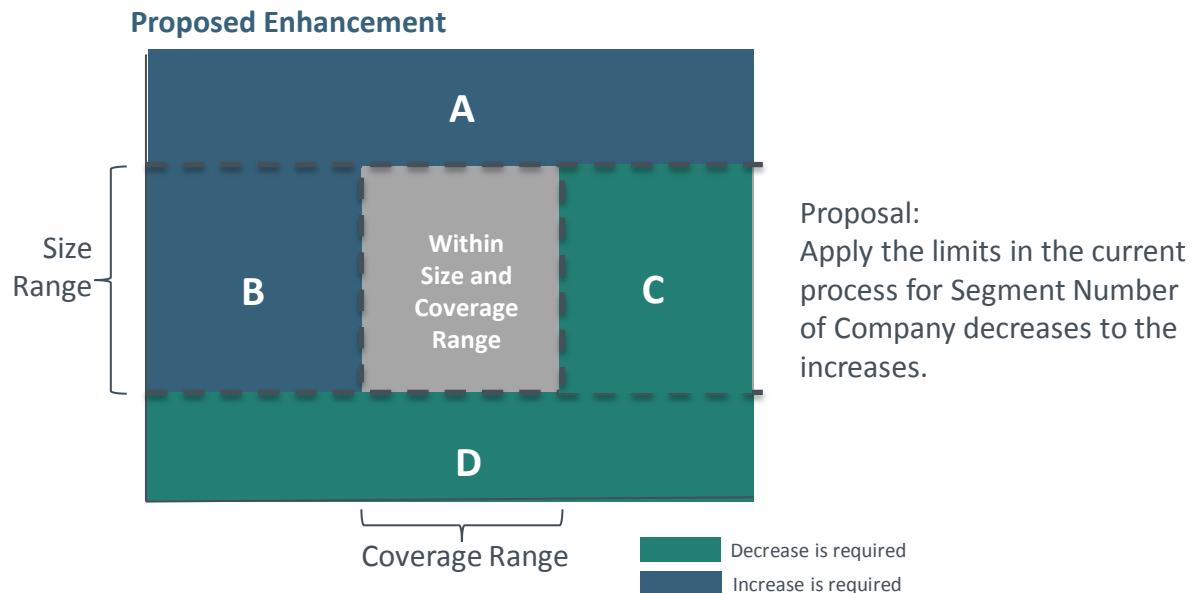
- As the MSCI GIMI Methodology emphasizes size integrity while also targeting market coverage, adjustments towards these two targets may require a significant increase in the Segment Number of Companies.
- Since increases in the Segment Number of Companies have essentially no limits, large movements in market performance can cause significant turnover.
- As an example, during the November 2014 Semi-Annual Index Review for the MSCI China A Index, an increase of 112 companies was required to meet size and coverage targets as per the MSCI GIMI Methodology. This required increase pushed turnover to 8.0% during the November 2014 SAIR.

Example:  
MSCI China A Index November 2014 SAIR



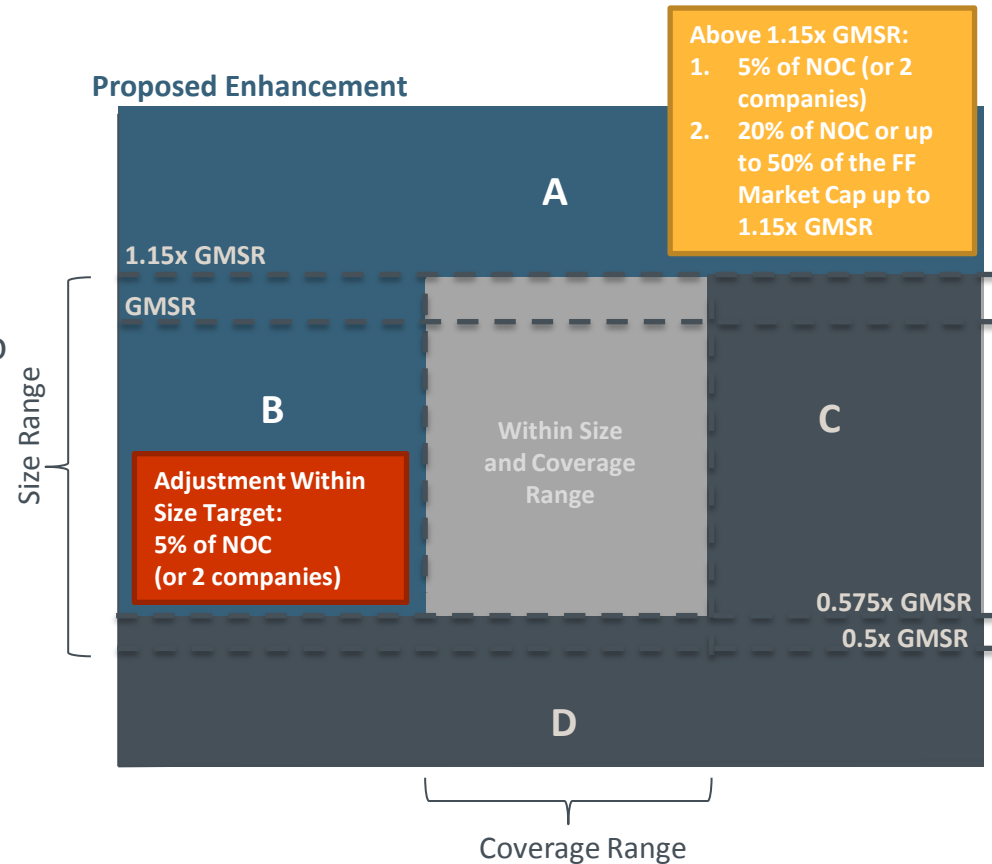
# PROPOSAL

- MSCI considers enhancing the current methodology by introducing analogous limits for increases in the Segment Number of Companies (“NOC”) that is currently in place for the decreases (areas C and D in below illustration).
- As a result of the proposal, markets located above the size range (A) and below the coverage range (B) may experience smaller changes in the NOC in comparison to the required adjustments under the existing methodology.
- These limits would result in adding fewer companies in markets where the size requirement has not yet been met (A), and even fewer companies in the markets where the size requirement has been met but is under-represented in terms of coverage (B).
- Such limits would lower turnover for markets where a significant increase in NOC is required due to large changes in market performance.



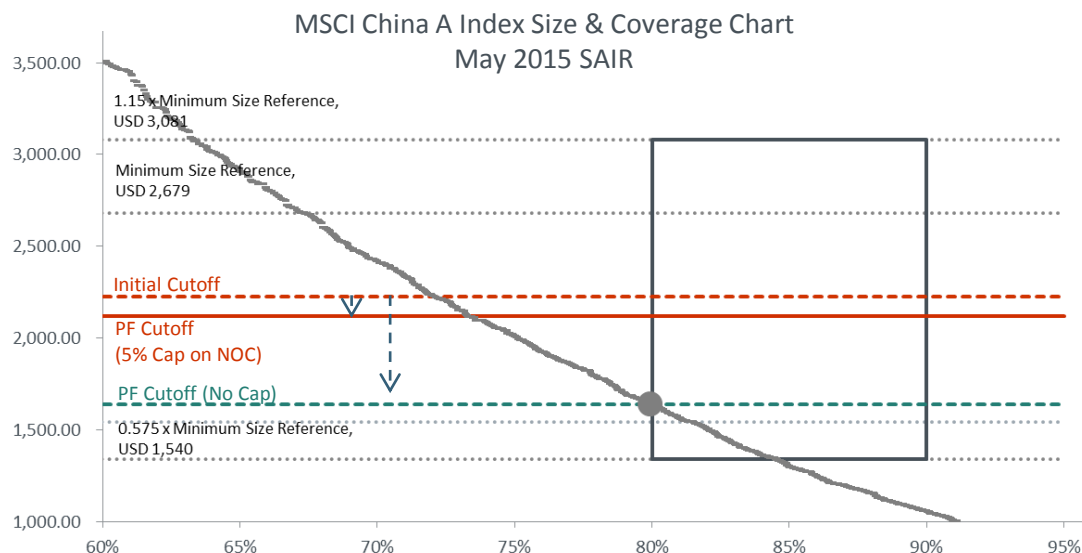
# PROPOSAL DETAILS

- MSCI proposes to limit NOC increases which is analogous to the way we limit NOC decreases outside of size and/or coverage requirements.
- Area A:** If the initial market cutoff is above 1.15x GMSR:
  - Add up to 5% of NOC (or 2 companies)
  - If still above size, add all companies up to 20% of NOC to add at most 50% the FF Mcap that lies between the Initial NOC and 1.15x GMSR.
- Area B:** If the initial market cutoff is within the size requirement (i.e. Initial market cutoff is between 0.575x GMSR and 1.15x GMSR)
  - Add up to 5% of NOC (or 2 companies)



# IMPACT EXAMPLE: CHINA A

- If the proposal had been applied to the MSCI China A Index during the May 2015 SAIR, the results would have remained the same since a 5% cap was already exceptionally applied to the MSCI China A Index at that time.
- This resulted in adding 33 companies instead of 256 companies to the NOC, which lowered turnover to 6.8% instead of 13.0%.
- However, this resulted in a lower pro forma coverage of 73.2% instead of the 80.0% coverage if we had added all companies up to the required increase as currently stipulated in the methodology.



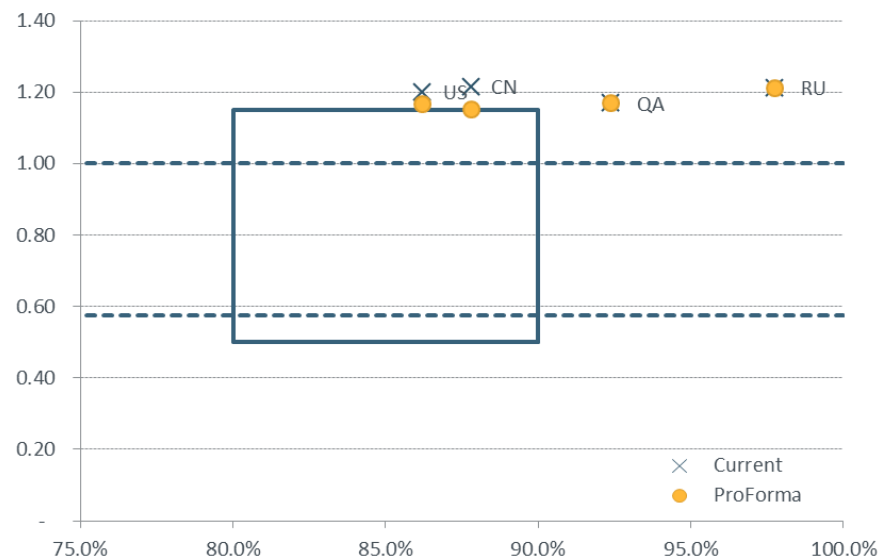
	NOC			Coverage		No of Constituents			Turnover
	Initial	PF	Change	Initial	PF	Current	PF	Change	
Current									
Methodology	661	917	+256	72.0%	80.0%	531	739	+208	13.0%
Capped by 5%	661	694	+33	72.0%	73.2%	531	580	+49	6.8%

# IMPACT EXAMPLE: NOC INCREASES ABOVE SIZE

The following shows the impact of the proposed change to markets above the box during the May 2015 SAIR:

- **USA:** No change. Adjustment to the box is within 5% of NOC.
- **China:** No change. Adjustment to the box is within 5% of NOC.
- **Russia:** No change. No other company above 1.15x GMSR.
- **Qatar:** No change. No other company above 1.15x GMSR.

May 2015 SAIR



	Current		Initial		Pro forma		
	NOC	x GMSR	NOC	Coverage	NOC	x GMSR	Coverage
US	629	1.20	647	86%	647	1.17	86%
CN	176	1.22	189	88%	189	1.15	88%
RU	22	1.21	22	98%	22	1.21	98%
QA	15	1.17	16	92%	16	1.17	92%

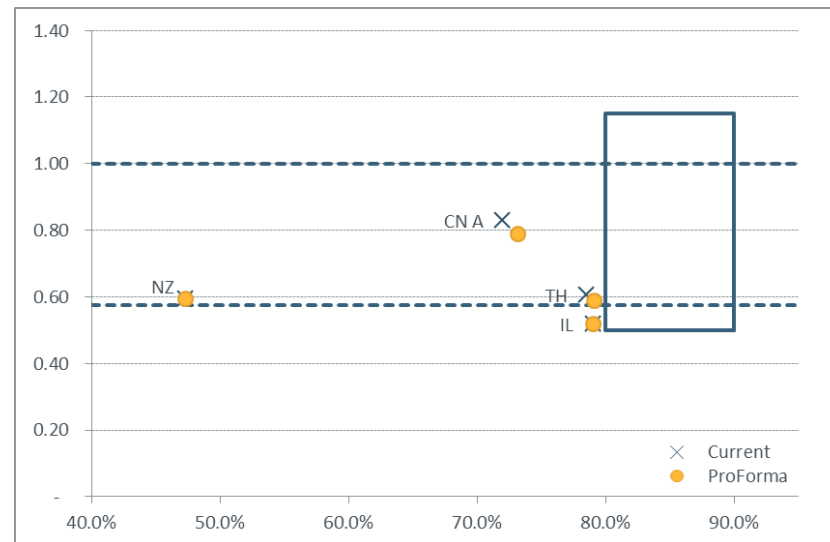


# IMPACT EXAMPLE: NOC INCREASES WITHIN SIZE

The following shows the impact of the proposed change to markets to the left of the box during the May 2015 SAIR:

- **Israel:** No change. Cutoff is within Proximity Area.
- **New Zealand:** No change. No other company above 0.575x GMSR.
- **Thailand:** No change. Just 1 company to add above 0.575x GMSR.
- **China A:** No change. Increase in NOC has already been capped at 5% of NOC exceptionally.

May 2015 SAIR

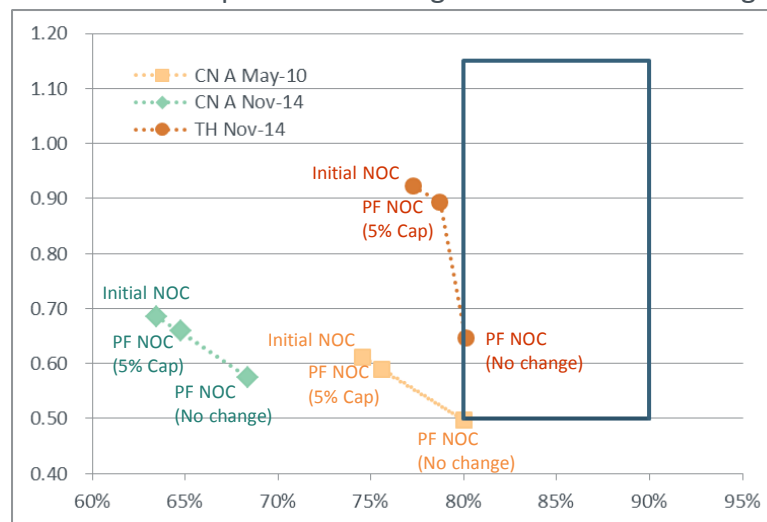


	Current		Initial		Pro forma		
	NOC	x GMSR	NOC	Coverage	NOC	x GMSR	Coverage
IL	10	0.52	10	79%	10	0.52	79%
NZ	7	0.59	7	47%	7	0.59	47%
TH	37	0.61	38	79%	39	0.59	79%
CN A	641	0.83	661	72%	694	0.79	73%

# HISTORICAL IMPACT EXAMPLES

- Historically, the proposed change would have primarily impacted the MSCI China A Index.
- The number of additions would have also been reduced in the MSCI Thailand Index in November 2014.

Historical Examples: Positions against the Size & Coverage



Historical impact of the proposal on the MSCI Global Standard Indexes

Review Date	Methodology	Initial	NOC Proforma	Change	Initial	Coverage Pro Forma	No of Constituents			Turnover
							Current	Pro Forma	Change	
MSCI CHINA A										
May 2010	Current Methodology	524	655	+131	74.6%	80.0%	443	547	+104	9.2%
	Proposed Change (5% Cap)	524	550	+26	74.6%	75.6%	443	476	+33	5.7%
Nov 2014	Current Methodology	528	640	+112	63.4%	68.4%	445	529	+84	8.0%
	Proposed Change (5% Cap)	528	554	+26	63.4%	64.7%	445	465	+20	4.0%
MSCI THAILAND										
Nov 2014	Current Methodology	32	37	+5	77.3%	80.0%	29	32	+3	4.1%
	Proposed Change (5% Cap)	32	34	+2	77.3%	78.7%	29	29	+0	1.5%

# DISCUSSION POINTS

- Is it favorable to keep some markets above the size target for the benefit of lower fluctuation of the segment number of companies, which could potentially lead to lower turnover?
- Is it favorable to keep some markets below the target coverage/ under-represented for the benefit of lower fluctuation of the segment number of companies, which could potentially lead to lower turnover?
- Is it favorable to apply a symmetrical limit to increases in the segment number of companies as to decreases?
  - Is the proposed limit of 5% of number of companies for markets within the size target but below target coverage appropriate?
  - Is the proposed limit of up to 20% of number of companies for markets above the size target appropriate?

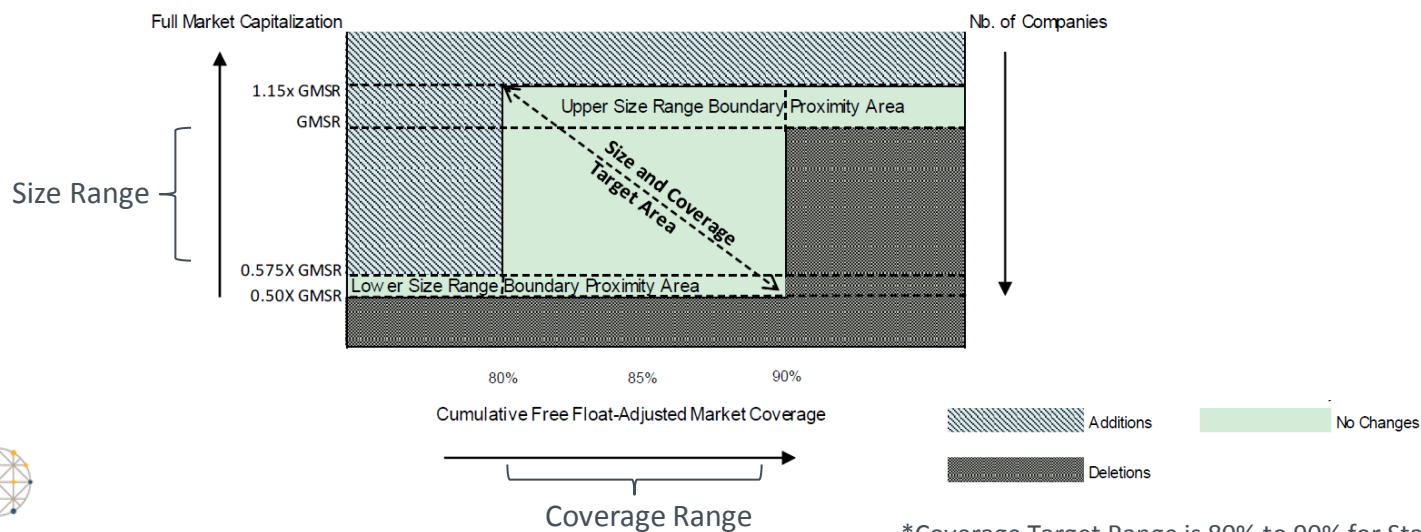
# APPENDIX

# BACKGROUND: REMINDER ON SIZE AND COVERAGE INTEGRITY

The intersection of these ranges specifies a Size and Coverage Target Area, as depicted below, which is applicable for each of the three size segment indexes, namely the Investable Market Index, the Standard Index, and the Large Cap Indexes.

During Semi-Annual Index Reviews, the Segment Number of Companies (NOC) is re-assessed by determining the position of the respective Size-Segment's Initial Segment Number of Companies in the Size and Coverage Target Area below. An increase in the Segment Number of Companies is required to meet the Size and Coverage Targets when:

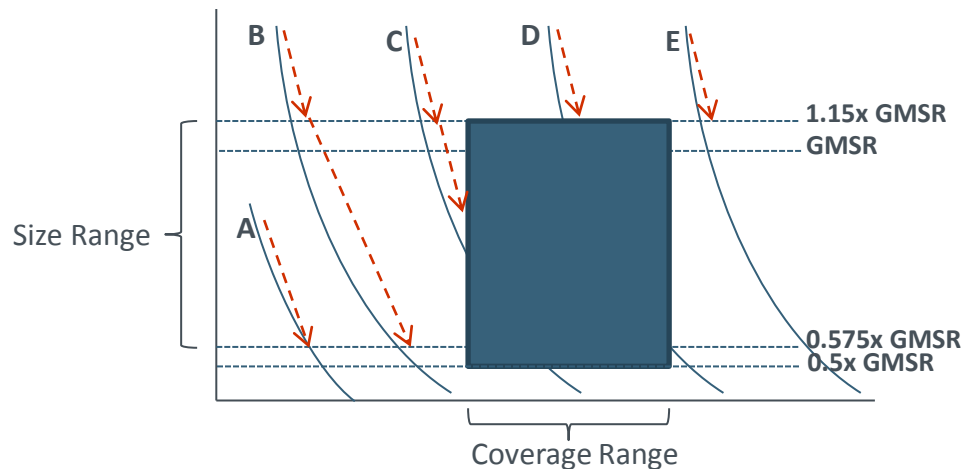
- the Market Size-Segment Cutoff derived from the Initial Segment Number of Companies is above the Upper Boundary of the Global Minimum Size Range, or
- the Market Size-Segment Cutoff is below the lower boundary of the Market Coverage Target Range\*.



\*Coverage Target Range is 80% to 90% for Standard Index

# BACKGROUND: REMINDER ON CHANGES IN THE SEGMENT NUMBER OF COMPANIES

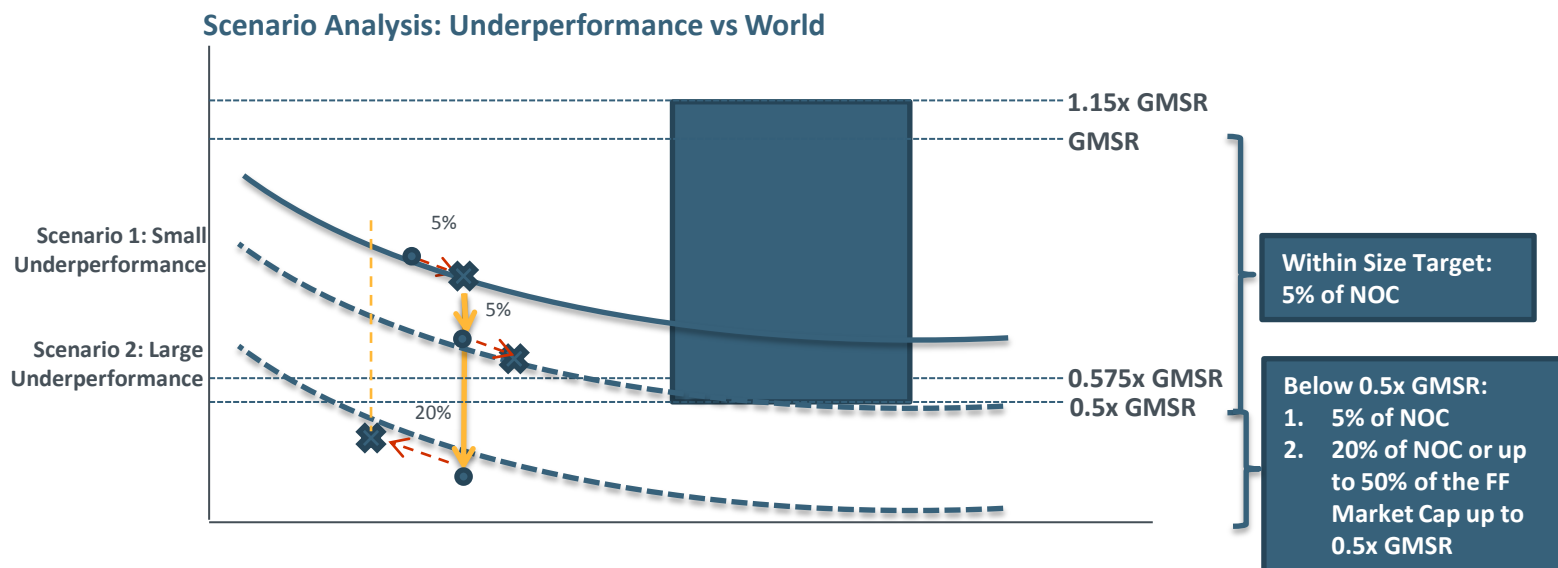
- In the current methodology, there are essentially no limits to the adjustment for increases in the Segment Number of Companies (NOC), as shown below.
- First, all companies above  $1.15\times$  GMSR are added (*Curves D and E*). If the lower boundary of the Coverage Target Range has not yet been met (*Curves A, B, and C*), all companies above  $0.575\times$  GMSR are added to meet the lower boundary of the Coverage Target Range or until  $0.575\times$  GMSR is met.



# SCENARIO ANALYSIS: UNDERPERFORMANCE VS WORLD

To illustrate the impact of the proposed process in future index reviews, the diagram below shows a simplified scenario where the market underperforms the GMSR/ World Index while the market is within size but below coverage.

- Scenario 1 shows how the pro forma NOC will behave in the next index review after the market underperforms and remains within size target. This results in another adjustment of 5% until we meet the coverage target or size boundary.
- Scenario 2 shows the pro forma NOC after a large market underperformance. This results in a decrease in NOC which may result in coverage that is lower than the original point.

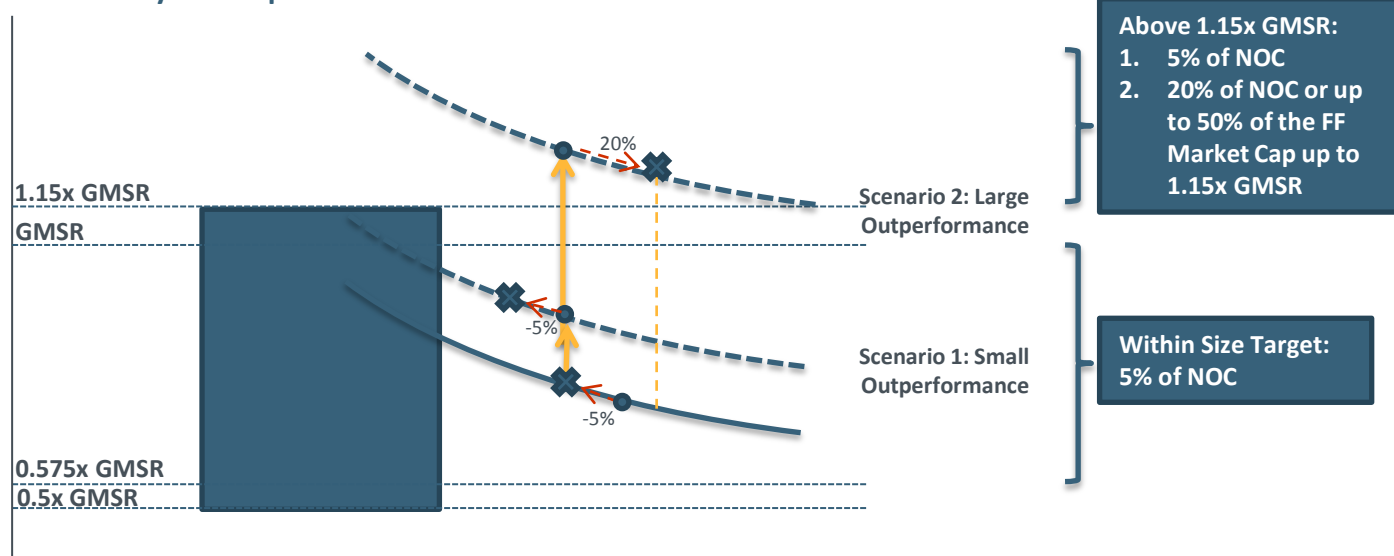


# SCENARIO ANALYSIS: OUTPERFORMANCE VS WORLD

The diagram below shows a simplified scenario where the market outperforms the GMSR/ World Index while the market is still within size but above coverage.

- Scenario 1 shows how the pro forma NOC will behave in the next index review after the market outperforms and remains within size target. This results in another adjustment of -5% until we meet the coverage target or size boundary.
- Scenario 2 shows the pro forma NOC after a large market underperformance. This results in an increase in NOC which may result in coverage that is higher than at our original point, but will still be closer to the target coverage than compared to the current methodology, albeit farther from size.

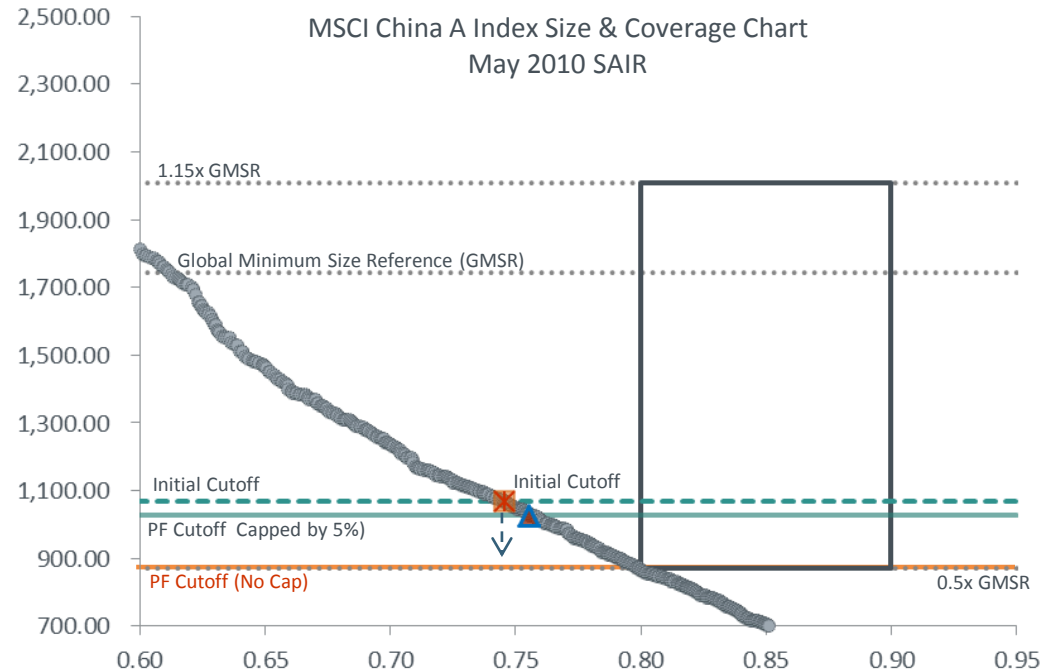
Scenario Analysis: Outperformance vs World





# HISTORICAL EXAMPLE: MSCI CHINA A MAY 2010 SAIR

- If the proposal had been applied to the MSCI China A Index during the May 2010 SAIR, 26 companies would have been added to the NOC, instead of 131 companies.
- This would have lowered the turnover from 9.2% to 5.7%.
- However, this would have also resulted in a lower pro forma coverage of 75.6% instead of the 80% target.

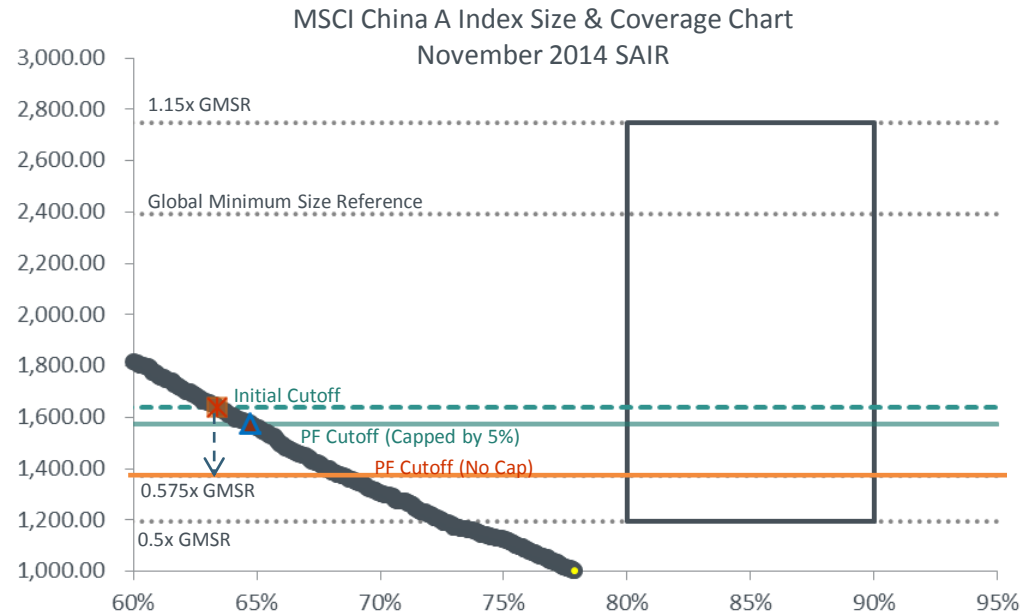


Historical impact of the proposal on the MSCI China A Index

Methodology	NOC			Coverage		No of Constituents			Turnover
	Initial	Proforma	Change	Initial	Pro Forma	Current	Pro Forma	Change	
Current Methodology	524	655	+131	74.6%	80.0%	443	547	+104	9.2%
Proposed Change (5% Cap)	524	550	+26	74.6%	75.6%	443	476	+33	5.7%

# HISTORICAL EXAMPLE: MSCI CHINA A NOV 2014 SAIR

- If the proposal had been applied to the MSCI China A Index during the November 2014 SAIR, 26 companies would have been added to the NOC, instead of 112 companies.
- This would lower turnover from 8.0% to 4.0% during this period.
- However, this would also result in a lower pro forma coverage of 64.7% instead of the 68.4% coverage if we had added all companies up to the required increase as currently stipulated in the methodology.

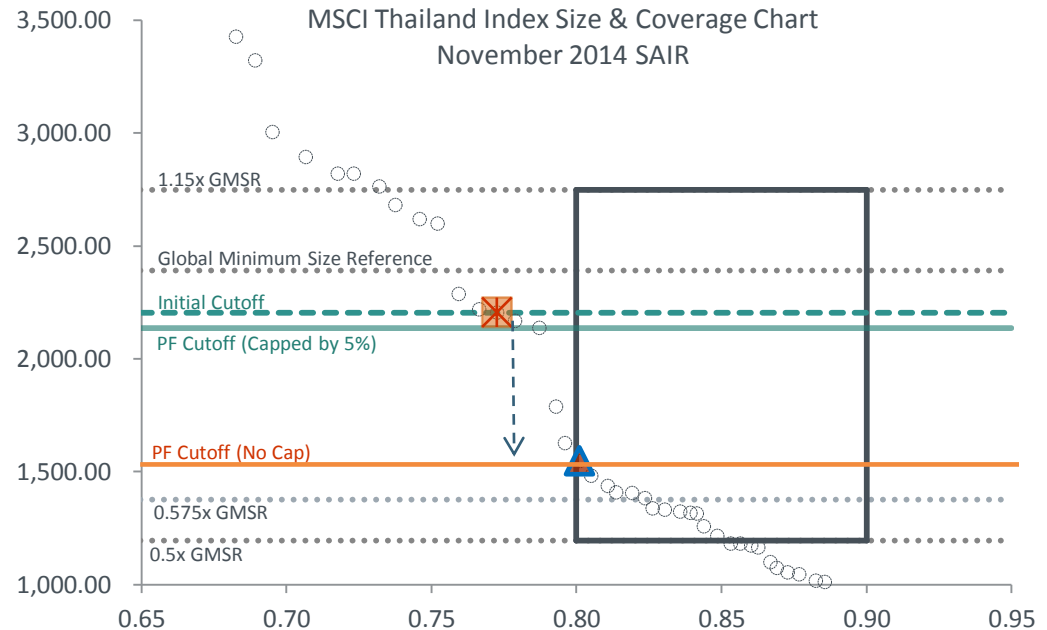


Historical impact of the proposal on the MSCI China A Index

Methodology	No of Companies			Coverage		No of Constituents			Turnover
	Initial	Proforma	Change	Initial	Pro Forma	Current	Pro Forma	Change	
Current Methodology	528	640	+112	63.4%	68.4%	445	529	+84	8.0%
Proposed Change (5% Cap)	528	554	+26	63.4%	64.7%	445	465	+20	4.0%

# HISTORICAL EXAMPLE: MSCI THAILAND NOV 2014 SAIR

- If the proposal was applied to the MSCI Thailand Index during the November 2014 SAIR, only 2 companies would have been added to the NOC instead of 5 companies.
- This would lower turnover from 4.1% to 1.5% during this period.
- However, this would have also resulted in a lower pro forma coverage of 78.7% instead of the 80% target.



Historical impact of the proposal on the MSCI Thailand Index

Methodology	No of Companies			Coverage		No of Constituents			Turnover
	Initial	Proforma	Change	Initial	Pro Forma	Current	Pro Forma	Change	
Current Methodology	32	37	+5	77.3%	80.0%	29	32	+3	4.1%
Proposed Change (5% Cap)	32	34	+2	77.3%	78.7%	29	29	+0	1.5%

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