

ESTIMATED IMPACT OF THE UPCOMING REVISIONS TO THE GICS® STRUCTURE ON THE MSCI INDEXES

February 2016

SUMMARY

- As announced previously, there will be several changes to the GICS structure as of the close of August 31, 2016, including the creation of a new Real Estate Sector, elevating its position from under the Financials Sector and bringing the number of sectors to eleven from ten.
- There will be no changes to most MSCI index methodologies – including the MSCI Global Investable Market Indexes methodology. MSCI proposes changes only to the following index methodologies in order to account for the creation of the new Real Estate sector:
 - Enhanced Value
 - Prime Value
 - Diversified Multiple-Factor
- There will be no special treatment related to the transition to the revised GICS structure for most MSCI Indexes. MSCI proposes a special transition treatment at the November 2016 Index Review for some indexes based on the following methodologies, to account for the active weight sector constraints:
 - Diversified Multiple-Factor Indexes Methodology
 - Minimum Volatility Indexes
- Securities classified in the newly created Copper sub-industry will be eligible for inclusion in the MSCI Commodity Producers Indexes.
- This document includes details of the proposals and estimated impact on MSCI Indexes. These proposals may or may not result in any changes to any MSCI Indexes. MSCI invites feedback from market participants on or before March 8, 2016.

PROPOSED CHANGES TO MSCI INDEX METHODOLOGIES

MSCI ENHANCED VALUE INDEXES

Current	Proposed
<ul style="list-style-type: none">In the calculation of the Enhanced Value z-score, P/E Fwd, P/B and EV/CFO are used for all sectors except Financials which only uses P/E Fwd and P/BEV/CFO is currently not used for securities which will be re-classified to the Real Estate sector at August 31, 2016	<ul style="list-style-type: none">In the calculation of the Enhanced Value z-score, P/E Fwd, P/B and EV/CFO will be used for all existing sectors, except Financials which will only use P/E Fwd and P/B, and Real Estate which will only use EV/CFO
<ul style="list-style-type: none">Sector Relative z-scores calculated for 10 sectors	<ul style="list-style-type: none">Sector Relative z-scores calculated for 11 sectors
<ul style="list-style-type: none">Sector neutrality applied on 10 sectors	<ul style="list-style-type: none">Sector neutrality applied on 11 sectors

SIMULATED IMPACT OF CHANGE

- MSCI Enhanced Value Indexes

Index Name	Parent Index		Current Enhanced Value Index		Pro-forma Enhanced Value (old GICS Structure)		Pro-forma Enhanced Value (new GICS Structure)		Minimum Turnover resulting from Sector Neutrality
	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	
WORLD ENHANCED VALUE	3.2%	17.7%	0.9%	21.0%	0.9%	20.0%	3.2%	17.7%	2.3%
EUROPE ENHANCED VALUE	1.4%	21.2%	0.0%	23.6%	0.0%	22.6%	1.4%	21.2%	1.4%
WORLD ex USA ENHANCED VALUE	3.6%	23.2%	1.7%	25.5%	1.7%	25.2%	3.6%	23.2%	2.0%
USA ENHANCED VALUE	2.9%	13.8%	0.0%	17.6%	0.0%	16.7%	2.9%	13.8%	2.9%
JAPAN ENHANCED VALUE	4.5%	15.2%	0.0%	19.1%	0.0%	19.7%	4.5%	15.2%	4.5%
KOKUSAI(WORLD ex JP) ENHANCED VALUE	3.1%	17.9%	1.2%	21.3%	1.0%	19.9%	3.1%	17.9%	2.1%
WORLD ex CH ENHANCED VALUE	3.3%	17.6%	1.1%	21.2%	0.9%	20.0%	3.3%	17.6%	2.4%
EAFE IMI ENHANCED VALUE	4.6%	20.6%	2.4%	24.0%	2.2%	23.0%	4.6%	20.5%	2.4%
ACWI ENHANCED VALUE	3.2%	18.4%	1.3%	21.5%	1.2%	20.4%	3.2%	18.4%	2.0%
EMERGING MARKETS ENHANCED VALUE	3.2%	24.8%	2.4%	25.4%	2.0%	26.0%	3.2%	24.8%	1.2%
AC ASIA PAC ex JAPAN ENH VALUE	7.1%	29.5%	9.7%	27.4%	8.7%	27.9%	7.1%	29.5%	1.6%
AC ASIA PACIFIC ENHANCED VALUE	6.0%	23.4%	5.0%	24.0%	4.7%	24.7%	6.0%	23.4%	1.3%
ACWI ex USA ENHANCED VALUE	3.5%	23.6%	2.5%	25.5%	2.5%	24.6%	3.5%	23.6%	1.1%
EAFE ENHANCED VALUE	3.6%	21.9%	1.5%	25.3%	1.7%	23.8%	3.6%	21.9%	1.9%
AC ASIA ex JAPAN ENHANCED VALUE	6.7%	25.6%	6.6%	26.4%	4.7%	27.6%	6.7%	25.6%	2.0%
UNITED KINGDOM ENHANCED VALUE	1.8%	21.8%	0.0%	23.1%	0.0%	23.6%	1.8%	21.8%	1.8%
ACWI ex JAPAN ENHANCED VALUE	3.1%	18.6%	1.8%	21.7%	1.5%	20.2%	3.1%	18.7%	1.6%

All figures as of December 1, 2015

MSCI PRIME VALUE INDEXES

Current	Proposed
<ul style="list-style-type: none"> In the calculation of the Prime Value z-score, P/E, P/B, P/CE and P/S are used for all sectors except Financials which only uses P/E and P/B 	<ul style="list-style-type: none"> In the calculation of the Prime Value z-score, P/E, P/B, P/CE and P/S will be used for all sectors except Financials which will only use P/E and P/B and Real Estate which will only use P/CE

Index Name	Parent Index		Current Prime Value Index		Pro-forma Prime Value (old GICS Structure)	
	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight
USA PRIME VALUE	2.9%	13.8%	0.1%	12.2%	0.1%	12.6%
EMU PRIME VALUE	1.8%	21.1%	1.9%	16.2%	2.6%	14.9%

All figures as of December 1, 2015

- Simulated analysis indicates that if only P/CE is used for the calculation of z-score for Real Estate securities, the pro-forma weight of Real Estate securities in the MSCI USA Prime Value Index and MSCI EMU Prime Value Index would have been zero

ONE-TIME TRANSITION PROPOSAL FOR THE NOVEMBER 2016 INDEX REVIEW

ONE-TIME TRANSITION PROPOSAL

- Certain MSCI index methodologies employ active sector weight constraints as part of the index construction methodology, in addition to a maximum turnover budget at each index review.
- Prior to August 2016, the sector weight constraint is applied on the existing Financials sector, and as a result, individually the new Financials and Real Estate sectors may have active weights beyond the limits.
 - For example, if the active weight of the existing Financial Sector is +3%, but within it, the active weight of the new Financials Sector could be +10% and that of the new Real Estate Sector could be -7%.
- Due to the creation of the new Real Estate sector, there will be some turnover needed at the index review simply to bring the Financials and Real Estate sector individually within the active sector limits.
- MSCI proposes to add this turnover amount to the regular budgeted turnover at the November 2016 Index Review in order to allow for the full methodology related turnover impact in addition to the above turnover.
- This impacts some indexes based on the Minimum Volatility Index methodology and the Diversified Multiple-Factor Index methodology at the November 2016 Index Review.

SIMULATED IMPACT OF TRANSITION PROPOSAL

- MSCI Diversified Multiple Factor Indexes

Index Name	Parent Index		Current DMF Index		Active Weights		Obligatory Turnover	Rounded to nearest 5%	Proposed TO Budget^
	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	Real Estate	Financials			
ACWI DIVERSIFIED MULTIPLE-FACTOR	3.2%	18.4%	2.8%	19.2%	-0.4%	0.8%	0.0%	0.0%	20.0%
EM DIVERSIFIED MULTIPLE-FACTOR	3.2%	24.8%	8.6%	16.6%	5.4%	-8.2%	3.2%	5.0%	25.0%
USA DIVERSIFIED MULTIPLE-FACTOR	2.9%	13.8%	0.4%	22.5%	-2.5%	8.7%	3.7%	5.0%	25.0%
USA SMALL CAP DIVERSIFIED MULTIPLE-FACT	10.4%	16.1%	1.0%	23.1%	-9.4%	7.0%	4.4%	5.0%	25.0%
WORLD ex USA DIVERSIFIED MULTIPLE-FACTOR	3.6%	23.2%	4.0%	19.9%	0.4%	-3.4%	0.0%	0.0%	20.0%
JAPAN DIVERSIFIED MULTIPLE-FACTOR	4.5%	15.2%	2.1%	21.1%	-2.5%	5.9%	0.9%	0.0%	20.0%
AC ASIA PAC ex JAPAN DIV MULTIPLE-FACTOR	7.1%	29.5%	21.7%	12.2%	14.6%	-17.3%	12.3%	15.0%	35.0%
AC ASIA PAC DIVERSIFIED MULTIPLE-FACTOR	6.0%	23.4%	11.3%	13.5%	5.3%	-9.8%	4.8%	5.0%	25.0%
AC ASIA ex JAPAN DIVERS MULTIPLE-FACTOR	6.7%	25.6%	16.6%	12.6%	10.0%	-13.0%	8.0%	10.0%	30.0%
USA DIVERSIFIED MULTIPLE-FACTOR (CAD)	2.9%	13.8%	0.4%	22.8%	-2.5%	9.0%	4.0%	5.0%	25.0%
CA IMI SCT DIVERS MULTIPLE-FACTOR (CAD)	4.3%	34.5%	5.3%	20.9%	1.0%	-13.6%	8.6%	10.0%	30.0%

All figures as of December 01, 2015

^Rounded to the nearest 5%. Numbers subject to change after May 2016 Index Review

SIMULATED IMPACT OF TRANSITION PROPOSAL

- MSCI Minimum Volatility Indexes

Index Name	Parent Index		Current MV Index		Active Weights		Obligatory Turnover	Rounded to nearest 5%	Proposed TO Budget^
	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	Real Estate	Financials			
WORLD ex AU MINIMUM VOLATILITY (AUD)	5.8%	33.9%	25.8%	12.4%	20.0%	-21.5%	16.5%	15%	25%
NORTH AMERICA MINIMUM VOLATILITY (CHF)	2.8%	14.7%	14.8%	5.0%	12.1%	-9.8%	7.1%	5%	15%
JAPAN SMALL CAP MINIMUM VOLATILITY (JPY)	10.4%	9.2%	22.0%	0.4%	11.6%	-8.9%	6.6%	5%	25%
WORLD EX CH MINIMUM VOLATILITY (CHF)	3.1%	17.7%	13.5%	8.0%	10.3%	-9.7%	5.3%	5%	15%
WORLD MINIMUM VOLATILITY (NZD)	3.0%	17.7%	12.6%	12.4%	9.6%	-5.3%	4.6%	5%	15%
EUROPE SMALL CAP MINIMUM VOLATILITY(EUR)	9.1%	14.3%	18.3%	10.0%	9.2%	-4.2%	4.2%	5%	25%
AUSTRALIA IMI MINIMUM VOLATILITY (AUD)	8.4%	40.2%	16.8%	27.3%	8.4%	-13.0%	8.0%	5%	15%
AUSTRALIA SMALL CAP MIN VOLATILITY (AUD)	8.2%	10.0%	16.1%	7.1%	7.9%	-2.9%	2.9%	5%	25%
WORLD EX CH ex BANKS ex DF MIN VOL (CHF)	3.6%	4.7%	11.4%	2.0%	7.8%	-2.7%	2.8%	5%	15%
EUROPE SMALL CAP MINIMUM VOLATILITY(USD)	9.1%	14.3%	16.8%	11.1%	7.8%	-3.1%	2.8%	5%	25%

All figures as of December 01, 2015

^Rounded to the nearest 5%. Numbers subject to change after May 2016 Index Review

ESTIMATED IMPACT ON OTHER MSCI INDEXES

MARKET-CAP WEIGHTED INDEXES

GICS Screen	Example	Impact
Financials	MSCI World Financials	Deletion of securities newly classified in the Real Estate Sector
Diversified Financials	MSCI World Diversified Financials	Addition of securities from the Mortgage REIT Sub-Industry
Real Estate	MSCI World Real Estate	Deletion of securities from the Mortgage REIT Sub-Industry
REITs	MSCI World REITs	Deletion of securities from the Mortgage REIT Sub-Industry

- The additions / deletions will be applied in one step coinciding with the August 2016 Quarterly Index Review.
- Real Estate or REIT indexes that already exclude Mortgage REITs will not be impacted:
 - MSCI US REIT Index
 - MSCI Core Real Estate Indexes

EQUAL SECTOR WEIGHTED INDEXES

Methodology	Current	Proposed
Equal Sector Weighted Indexes	Equal weighting applied to 10 sectors	Equal weighting applied to 11 sectors

- Simulated Impact

Index Name	Parent Index		Current Equal Sector Weighted Index		Pro-forma Equal Sector Weighted (old GICS Structure)			Pro-forma Equal Sector Weighted (new GICS Structure)		
	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	Turnover	Real Estate Weight	Financials Weight	Turnover
EAFE EQUAL SECTOR WEIGHTED	3.7%	21.9%	1.5%	8.5%	1.4%	8.6%	3.1%	9.1%	9.1%	9.3%
EMERGING MARKETS EQUAL SECTOR WEIGHTED	3.2%	24.7%	1.1%	8.6%	1.1%	8.9%	6.3%	9.1%	9.1%	12.0%

All figures as of December 01, 2015

SECTOR NEUTRAL QUALITY INDEXES

Methodology	Current	Proposed
Sector Neutral Quality	Sector neutrality applied to 10 sectors	Sector neutrality applied to 11 sectors

- Simulated Impact

Index Name	Parent Index		Current Sector Neutral Quality Index		Pro-forma Sector Neutral Quality (old GICS Structure)			Pro-forma Sector Neutral Quality (new GICS Structure)		
	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	Real Estate Weight	Financials Weight	Turnover	Real Estate Weight	Financials Weight	Turnover
WORLD SECTOR NEUTRAL QUALITY	3.2%	17.7%	1.8%	18.7%	2.1%	18.7%	7.5%	3.2%	17.7%	9.3%
EUROPE SECTOR NEUTRAL QUALITY	1.4%	21.2%	2.6%	20.7%	2.6%	20.0%	12.3%	1.4%	21.2%	12.3%
WORLD EX USA SECTOR NEUTRAL QUALITY	3.6%	23.2%	4.1%	22.4%	5.2%	21.7%	10.1%	3.6%	23.2%	10.3%
USA SECTOR NEUTRAL QUALITY	2.9%	13.8%	1.4%	15.0%	1.5%	15.2%	12.9%	2.9%	13.8%	18.0%
EAFE IMI SECTOR NEUTRAL QUALITY	4.6%	20.6%	3.1%	22.6%	4.1%	21.1%	11.2%	4.6%	20.5%	12.1%
EM SECTOR NEUTRAL QUALITY	3.2%	24.8%	3.5%	25.6%	2.9%	25.1%	13.0%	3.2%	24.8%	13.0%

All figures as of December 01, 2015

OTHER MSCI INDEXES IMPACTED

Methodology	Current	Proposed
Dividend Masters Indexes	Sector Capping (30%) applied on 10 sectors	Sector Capping (30%) applied on 11 sectors
Global Low Carbon Indexes	Active Sector weight constraints on 10 sectors	Active Sector weight constraints on 11 sectors
Minimum Volatility	Active Sector weight constraints on 10 sectors	Active Sector weight constraints on 11 sectors
Diversified Multiple-Factor	Active Sector weight constraints on 10 sectors	Active Sector weight constraints on 11 sectors
Cyclical and Defensive Sectors	Real Estate securities (part of Financials sector) classified as Cyclical	Real Estate Sector classified as Cyclical
High Dividend Yield	REITs not eligible	All REITs classified in the new Real Estate Sector as well as Mortgage REITs not eligible
Global Sustainability and Global Socially Responsible Indexes	Sector Coverage Targeted for 10 sectors	Sector Coverage Targeted for 11 sectors

OTHER GICS STRUCTURE CHANGES

- Other changes that will occur on August 2016
 - Creation of two new sub-industries (Copper and Financial Exchanges & Data)
 - Combination of two sub-industries (Internet and Direct Marketing Retail)
- As a result, the following changes will occur for the **Commodity Producers Indexes Methodology**
 - Current Methodology: Securities classified under the following Sub-Industries under Metals are selected
 - 15104010 (Aluminum)
 - 15104020 (Diversified Metals & Mining)
 - 15104030 (Gold)
 - 15104040 (Precious Metals & Minerals)
 - 15104045 (Silver)
 - 15104050 (Steel)
 - New Methodology : The new Copper Sub-Industry (15104025), which is being carved out of Diversified Metals and Mining(15104020), will be added to the Metals category as an eligible sub-industry for security selection.
- No other index methodologies are impacted as a result of these changes

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