

# CONSULTATION ON PROPOSED CORPORATE EVENTS METHODOLOGICAL CHANGES

OCTOBER 2017

# SUMMARY OF PROPOSALS

MSCI opens a consultation on a proposal around its Corporate Event Methodology and related treatment with regards to the following:

- 1) UNIVERSAL THRESHOLDS FOR IMMEDIATE IMPLEMENTATION OF CORPORATE EVENTS
- 2) NEW TREATMENT FOR SECURITIES UNDER PROLONGED SUSPENSION (EX-CHINA)
- 3) ENHANCED TREATMENT FOR SPIN-OFFS WITH DELAYED PAY-DATE
- 4) NEW TREATMENT FOR ACQUISITIONS INVOLVING THE ISSUANCE OF TENDERED LINE OF SHARES

## **Selected Topics:**

- Accelerated rights issues in Australia
- Number of shares/float updates for M&A
- Cross-Border Acquisition

*\*Note that this consultation may or may not result in the implementation or adoption of any or all of the proposed changes contained in this document. In addition, consultation 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 results of the consultation.*

# PROPOSED UNIVERSAL THRESHOLDS FOR IMMEDIATE IMPLEMENTATION OF CORPORATE EVENTS

# BACKGROUND AND RATIONALE FOR PROPOSAL

- Currently, the thresholds to determine if a corporate event qualifies for immediate implementation in the MSCI Indexes vary depending on the event type, the country and the size segment of the company.
  - The implementation timing can vary as well depending on the event type.
  - This may result in index changes being more difficult to anticipate for institutional investors.
  - With the below proposals, MSCI aims to adopt simpler thresholds and maintain low index turnover while continuing to reflect significant changes in a timely manner.
- 1) MSCI proposes one new set of universal thresholds to determine immediate implementation of corporate events.
  - 2) MSCI proposes to compare the size of the corporate event alone (without including number of shares or float updates) with the proposed thresholds to determine the implementation timing.
  - 3) MSCI proposes that all qualifying corporate events (as described above) are implemented at the time of the event.

# CURRENT THRESHOLDS AND PROPOSAL

## Proposals Summary across all event types and regions

- **Standard** thresholds to remain at or become **5%** of the pre-event number of shares
- **Small Cap** thresholds to increase to **10%** of the pre-event number of shares
- **Micro Caps** threshold to remain or become **25%** of the pre-event number of shares

Event Types	Current Thresholds IMI/Micro	Proposal Standard/Small Cap/Micro Cap
Public Offerings	5% - 25%	5% - 10% - 25%
Private Placements		
Secondary Offerings (US)		
Acquisition of OTC/ listed non-index constituents		
Results of Dutch Buyback		
Results of Rights Issue		
Conversions		
Results of fixed tender offer buyback/partial acq.		
Subscription Receipts in Canada <sup>1</sup>		
Block Sales/Sec. Offerings (ex US)	USD 1 billion impact for DM <sup>2</sup> USD 500 million impact for EM <sup>2</sup>	
Acquisition of Private <sup>3</sup>	10% Standard/50% Small & Micro	

<sup>1</sup> Conversion of subscription receipts are implemented at the next regularly scheduled Index Review.

<sup>2</sup> Including number of shares and float updates.

<sup>3</sup> Acquisition of Unlisted Securities are implemented at the next regularly scheduled Index Review, except for China

# PROPOSED AND CURRENT TREATMENT

Event Types	STANDARD				SMALL CAPS				MICRO CAPS			
	Current	Proposal 5%	Volume Change	% Change	Current	Proposal 10%	Volume Change	% Change	Current	Proposal 25%	Volume Change	% Change
Private Placements	174	174	0	0%	184	152	(32)	-17%	88	88	0	0%
Public Offerings	24	24	0	0%	232	152	(80)	-34%	72	72	0	0%
Secondary Offerings (US)	36	36	0	0%	80	60	(20)	-25%	0	0	0	0%
Buybacks	5	1	(4)	-71%	27	8	(19)	-69%	11	6	(5)	-45%
Partial acquisitions	7	5	(1)	-28%	18	17	(1)	-6%	2	2	0	0%
Block Sales/Sec. Off (ex US) -Event	30	36 <sup>2</sup>	6	+20%	3	102 <sup>2</sup>	99	1067%	0	8 <sup>2</sup>	8	100%
Block Sales/Sec. Off (ex US) <sup>1</sup> - QIR	22	0	(22)	-100%	86	0	(86)	-100%	44	0	(44)	-100%
Block Sales/Sec. Off (ex US) -Total	52	36 <sup>2</sup>	(16)	-31%	89	102 <sup>2</sup>	13	15%	44	8 <sup>2</sup>	(36)	-82%
Acquisition of Private <sup>1</sup>	7	8	1	14%	7	25	18	257%	0	0 <sup>2</sup>	0	0%
Subscription Receipts (CA) <sup>1</sup>	3	3	0	0%	11	10	(1)	-9%	3	3	0	0%
Acq. of OTC/ listed non-const.	0	0	0	0%	5	2	(3)	-60%	0	0 <sup>2</sup>	0	0%
Results of Rights Issue	1	1	0	0%	3	2	(1)	-33%	22	22	0	0%
Conversions	1	1	0	0%	3	3	0	0%	1	1	0	0%
<b>Grand Total</b>	<b>362</b>	<b>325</b>	<b>(37)</b>	<b>-10%</b>	<b>748</b>	<b>635</b>	<b>(113)</b>	<b>-15%</b>	<b>287</b>	<b>214</b>	<b>(73)</b>	<b>-25%</b>

<sup>1</sup> Block sales of intermediate sizes, acquisition of Unlisted Securities, conversion of subscription receipts are implemented at the next regularly scheduled Index Review.

<sup>2</sup> Estimated number

**NOTE:** Current treatment of block sales/secondary offerings (ex-US) can be found in the appendix.

Data collected on 2015 and 2016, reflected on annualized basis.

# IMPACT OF THE PROPOSAL

- MSCI would use one unique threshold per size segment across all event types and regions to determine the implementation timing of a corporate event.
- The **5%-10%-25%** proposal would decrease the number of events being implemented at the time of the event for Standard securities (-10%), Small caps (-15%) and for Micro caps (-25%).
- MSCI would not take into account number of shares and float updates to determine if it qualifies for immediate implementation. Note that if the size of the event alone is above the relevant threshold, any number of shares and float updates would be implemented simultaneously.
- As a consequence of the point above, consecutive block sales for the same company would no longer be considered cumulatively but independently.
- Block sales above thresholds would be implemented at the time of the event, whereas ones below thresholds would be implemented at the next May Semi-Annual Index Review. MSCI would no longer use the QIR thresholds highlighted on appendix 1.
- Qualifying acquisitions of private companies and subscription receipts in Canada would be implemented intra quarter and not coincide with the next Index Review.

# DISCUSSION POINTS

- Do you agree with the new set of thresholds per size segment (i.e. Standard, Small Cap and Micro Cap) applicable across regions and event types?
- Do you believe the resulting smaller volume of qualifying events for immediate implementation is appropriate?
- Do you agree that the qualification for immediate implementation should only be based on the size of the event excluding number of shares or float updates?
- Should MSCI continue to have a second set of thresholds for smaller block sales to be implemented at the quarterly Index Reviews?
- Do you agree with the proposal that qualifying acquisitions of non-listed companies and subscription receipts in Canada should be implemented intra-quarters instead of postponed to the next Index Review?
- Should MSCI continue to implement intra-quarter changes for selected event types but at regularly scheduled - weekly or monthly - intervals?



# APPENDIX

# 1) BLOCK SALES CURRENT TREATMENT SUMMARY

Currently, block sales/secondary offerings (ex-USA), depending on their size (in USD), are implemented at different timings.

- The **largest ones** are implemented at the time of the event based on the below thresholds<sup>1</sup>:
  - At least USD 1 billion FIF market capitalization impact for DM (event + any float updates)
  - At least USD 500 million FIF market capitalization impact for EM (event + any float updates)
- The **intermediate ones** are implemented at the following Index Review based on the below thresholds<sup>2</sup>:
  - At least USD 1 billion FIF market capitalization impact for USA (event + any float updates)
  - At least USD 500 million FIF market capitalization impact for DM (event + any float updates)
  - At least USD 200 million FIF market capitalization impact for EM (event + any float updates)
  - At least 3 FIF bracket change (event + any float updates)
- The **smallest ones** are implemented as part of the annual full float review at the May Semi-Annual Index Review<sup>3</sup>.

Note that in cases of large number of shares update done as part of Quarterly Index Reviews, MSCI would also review the security's float<sup>4</sup>.

<sup>1</sup> As per section 4.1.2.1 of the Corporate Events methodology book

<sup>2</sup> As per section 3.2.4 of the GIMI Methodology book

<sup>3</sup> As per section 3.1.7 of the GIMI Methodology book

<sup>4</sup> As per section 3.2.5 of the GIMI Methodology book

## 2) COMPARATIVE VOLUMES WITH THE ALTERNATIVE THRESHOLD FOR SMALL CAPS

Event Types	SMALL CAPS						
	Current	Proposal 10%	Volume Change	% Change	Alternative 15%	Volume Change	% Change
Private Placements	184	152	(32)	-17%	96	(88)	-48%
Public Offerings	232	152	(80)	-34%	112	(120)	-52%
Secondary Offerings (US)	80	60	(20)	-25%	28	(52)	-65%
Buybacks	27	8	(19)	-69%	4	(23)	-85%
Partial acquisitions	18	17	(1)	-6%	14	(4)	-22%
Block Sales/Sec. Off (ex US) -Event	3	102	99	100%	42	39	0%
Block Sales/Sec. Off (ex US) <sup>1</sup> - QIR	86	0	(86)	-100%	0	(86)	-100%
Block Sales/Sec. Off (ex US) -Total	89	102	13	+15%	42	(47)	-53%
Acquisition of Private <sup>1</sup>	7	25	18	257%	22	15	100%
Subscription Receipts (CA) <sup>1</sup>	11	10	(1)	0%	7	(4)	-30%
Acq. of OTC/ listed non-const.	5	2	(3)	-60%	2	(3)	-60%
Results of Rights Issue	3	2	(1)	-33%	2	(1)	-33%
Conversions	3	3	0	0%	3	0	0%
<b>Grand Total</b>	<b>748</b>	<b>635</b>	<b>(113)</b>	<b>-15%</b>	<b>374</b>	<b>(371)</b>	<b>-50%</b>

<sup>1</sup> Block sales of intermediate sizes, acquisition of Unlisted Securities and conversion of subscription receipts are implemented at the next regularly scheduled Index Review.

NOTE: Data collected on 2015 and 2016, reflected on annualized basis.

# PROPOSED NEW TREATMENT FOR SECURITIES UNDER PROLONGED SUSPENSION (EX-CHINA)

# BACKGROUND AND RATIONALE FOR PROPOSAL

- The current treatment of prolonged suspension in the MSCI Indexes takes into account whether or not the suspended securities are pending a corporate event.
- There is currently no trigger to delete suspended index constituents pending a corporate event from the MSCI Indexes, which can lead to maintaining suspended index constituents for extensive period of time creating potential replication issues.
- MSCI proposes to delete suspended securities as soon as suspension reaches 50 business days for IMI securities (100 business days for Micro caps), even if the security has any pending corporate event.
- MSCI also proposes to assess prolonged suspensions on a daily basis instead of a monthly basis\*.
- MSCI would delete suspended securities at the lowest system price giving two full business days notice.

NOTE: This is aligned with the conclusions of the prolonged suspensions treatment for companies classify on China.

\* This would result in delaying by 15mins the delivery of the World ACE file from 4:15PM ET to 4:30PM ET.

# PROPOSAL OVERVIEW

Beyond below proposed thresholds, MSCI would delete the securities under prolonged suspension with two full business days notification at the lowest system price of 0.0001.

Prolonged suspension with no pending corporate events					
	IMI	# deletions	Micro Caps	# deletions	Assessment frequency
Current	50 days	24	100 days	35	Monthly
<b>Proposal</b>	<b>50 days</b>	<b>24</b>	<b>100 days</b>	<b>35</b>	<b>Daily</b>

Prolonged suspension with pending corporate events					
	IMI	# deletions	Micro Caps	# deletions	Assessment frequency
Current	NA	0	NA	0	NA
<b>Proposal</b>	<b>50 days</b>	<b>14</b>	<b>100 days</b>	<b>9</b>	<b>Daily</b>

- With current thresholds, 24 IMI securities (ex-China) and 35 Micro Caps have been deleted from the MSCI Indexes in 2 years due to prolonged suspension without pending corporate event.
- With pending corporate event, 14 IMI and 9 Micro Caps securities have been suspended for periods of 50 and 100 days or more respectively in the past two years.

NOTE: Effective Dec 1, 2017, MSCI will start implementing the same thresholds and assessment frequency for prolonged suspension for Chinese listed securities where 95% of prolonged suspensions occur.

Note: Data based on years 2015 and 2016.

# DISCUSSION POINTS

- Do you agree that MSCI should delete securities under prolonged suspension even if they are pending a corporate event?
- Do you agree with a distinct threshold between IMI securities (50 days) and Micro caps (100 days)<sup>1</sup>?
- Do you agree with a daily assessment for securities under prolonged suspension (ex-China) instead of the current monthly assessment and the resulting postponement by 15mins of the World ACE files delivery?

<sup>1</sup> Having 50 days for Micro caps would have increased the number of deletions from 44 to 59 based on the past 2 years historical data.

# PROPOSED ENHANCED TREATMENT FOR SPIN-OFFS WITH DELAYED PAY-DATE

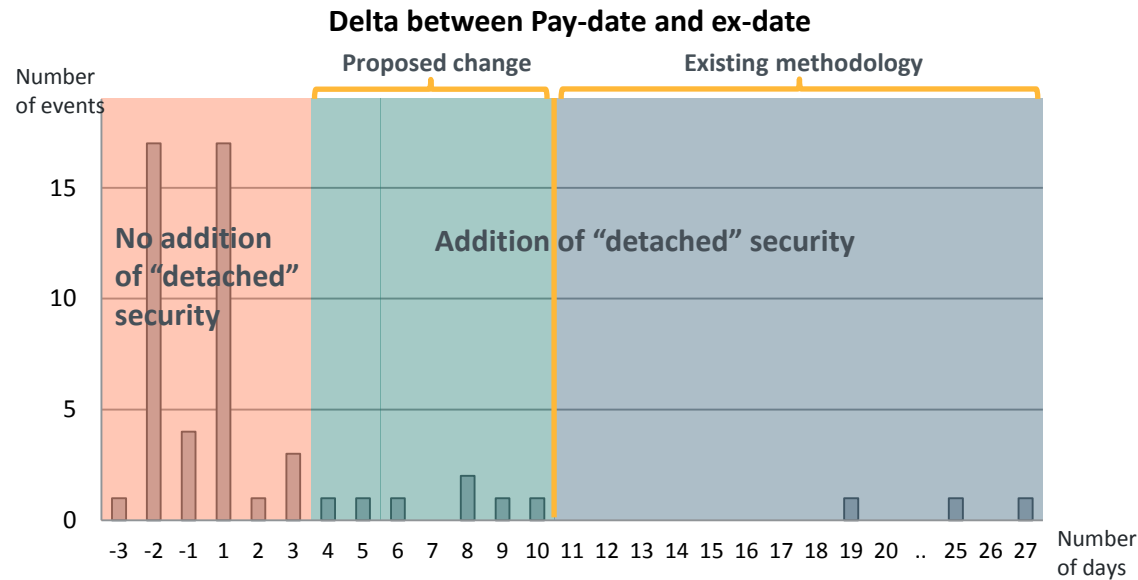


# BACKGROUND AND RATIONALE FOR PROPOSAL

- Currently, MSCI adds a “detached” security for corporate events, such as spin-off or partial spin-off, where the pay date is at least 2 weeks after the ex-date even if the spun-off security is trading on the ex-date.
- This can potentially cause replication issues for investors when the pay-date is less than 10 business days after the ex-date, as the distributed shares are already reflected in the weight of the spun-off in the MSCI Indexes as of the close of the ex-date but not yet received in the investor’s portfolio.
- MSCI proposes to add a “detached” security if the pay-date is 4 business days or more after the ex-date instead of the current 11 business days or more to limit potential replicability issues.
- The “detached” security would be temporarily added as of the close of the ex-date to the MSCI Indexes where the parent security belonged and was deleted as of the close of the pay-date. Simultaneously with the deletion, the impact of the distribution would be reflected in the spun-off security.

# PROPOSAL OVERVIEW

- It is typical that the pay-date takes place between -3 and +3 business days around the ex-date depending on the country.
- Beyond 3 business days is rare with 9 occurrences in the last 2 years.
- The blue and green areas represent all the corporate events where MSCI would temporarily add a “detached” security.



Based on a sample of 52 corporate events in the past 2 years (Jan 2015 to Jan 2017)

REGION REPRESENTATION			
Days	DM	EM	Total
4-5 Days	2		2
6-10 Days	5		5
10+ Days	2		2

SIZE SEGMENT REPRESENTATION				
Delta	Standard	Small Cap	Micro Cap	Total
4-5 Days	1		1	2
6-10 Days	3		2	5
10+ Days	1	1	0	2

# PROPOSAL IMPACT & DISCUSSION POINTS

- With the current methodology, 2 corporate events with delayed pay-dates in 2 years benefited from the temporary addition of a “detached” security in the MSCI Indexes.
- With the proposal of at least 4 business days difference, 9 corporate events would have qualified to have a “detached” security temporarily added to the MSCI Indexes between the ex-date and the pay date.
- Is at least 4 business days the right window to trigger the addition of a “detached” security in the MSCI Indexes?

# APPENDIX

# LIST OF PAST CORPORATE EVENTS UNDER NEW PROPOSAL

Pay Date (10+ Days)						
Country	Securities	Market	Size Segment	Effective Date	Event Type	Impact
GB	GLENCORE / LONMIN	DM	Standard/Small Cap	14-May-15	Spin Off	USD 210 million
CN	SINA CORP / Weibo Corp	EM	Small Cap	08-Sep-16	Spin Off	USD 356 million

Pay Date (6-10 Days)						
Country	Securities	Market	Size Segment	Effective Date	Event Type	Impact
US	LIBERTY GLOBAL C	DM	Standard/Small Cap	21-Jun-16	Spin Off	USD 1.5 billion
SG	TEE INTERNATIONAL	DM	Micro Cap	06-May-15	Spin Off (Dvd in Specie)	<USD 10 million
HK	ITC CORPORATION	DM	Micro Cap	18-Jan-17	Spin Off (Div in Specie)	<USD 1 million
AU	NATIONAL AUSTRALIA BANK/CYBG PLC	DM	Standard/Small Cap	03-Feb-16	Spin Off	USD 1.95 billion
GB	BHP BILLITON PLC (GB) / SOUTH 32	DM	Standard/Standard	18-May-15	Spin Off	USD 2.73 billion

Pay Date (4-5 Days)						
Country	Securities	Market	Size Segment	Effective Date	Event Type	Impact
CA	CANADIAN NAT RESOURCES	DM	Standard	01-Jun-16	Spin Off	USD 400 million
HK	MIDLAND HOLDING	DM	Micro Cap	06-May-15	Spin Off (Dvd in Specie)	<USD 25 million

# PROPOSED NEW TREATMENT OF ACQUISITIONS INVOLVING THE ISSUANCE OF TENDERED LINE OF SHARES

# BACKGROUND & PROPOSAL

- In some tender offers, tendered shares may trade on a distinct line from the non-tendered original line of shares.
- Generally, each line of shares trades until the offer closes or fails.
- Liquidity and performance may differ between the two lines of shares, which can potentially create tracking error.
- For past events, mainly in Germany and Switzerland, MSCI applied a case by case approach.
- MSCI proposes a framework to determine if and when it is appropriate to switch the security's identifiers from the original non-tendered line of shares to the newly created tendered line.

# PROPOSAL OVERVIEW

- **Conditions of implementation<sup>1</sup>:**

MSCI would switch the target security's identifiers from the original line of shares to the newly created tendered line if at the end of the initial offer period:

- The minimum acceptance level requirement is met (taking into account that the initial threshold may be waived down) AND
- The acceptance level is at least 50% AND
- An additional offer period will be launched

- **Announcement timing:**

If both conditions above are satisfied, MSCI would send an announcement in “confirmed” status shortly after the final results of the first offer period have been announced.

- **Implementation timing:**

MSCI would change the identifiers of the index constituent to the tendered line as of the close of the last day of the additional offer period.

- **What happens if the deal is cancelled:**

MSCI would send an announcement in “confirmed” status to revert to the original line of shares' identifiers coinciding with the date the tendered share are re-booked to the regular shares

<sup>1</sup> Applicable regardless the deal consideration (cash, cash and shares, shares).



# PROPOSAL OVERVIEW

- **Deletion price:**

If the tender offer is deemed likely to be successful as per the criteria set in the section 2.2.2 of the MSCI corporate events methodology book or the completion date has been publicly announced, MSCI will delete the target security from the MSCI Indexes. The deletion price can be:

- The tendered line of shares market price, if both conditions set in the previous slide were satisfied.
- The regular line of shares market price, if the conditions set in the previous slide were not satisfied at the end of the first offer period.
- The consideration of the offer, if the target security has been delisted prior to the effective date of the deletion in the MSCI Indexes.

NOTE: MSCI would announce the implementation with at least two full business days advance notification.

# EXAMPLE OF PAST CASES

Date	Security Name (Country)	Two offer periods?	Min. acceptance levels (original)	Acceptance level at the end of 1 <sup>st</sup> offer period	Acceptance level at the end of 2 <sup>nd</sup> offer period	Actual Treatment	Hypothetical treatment under new proposal
Nov 2014	UBS Group <sup>1</sup> (Switzerland)	Yes	67% (90%)	90.4%	96.64%	Switch during 1 <sup>st</sup> offer period	Switch at the close of 2 <sup>nd</sup> offer period
Dec 2016	Gategroup (Switzerland)	Yes	0% (67%)	63.6%	95.32%	No switch	Switch at the close of 2 <sup>nd</sup> offer period
Jan 2017	Kuka (Germany)	Yes	30%	85.69%	94.55%	No switch	Switch at the close of 2 <sup>nd</sup> offer period
March 2017	Deutsche Boerse (Germany)	Yes	60% (75%)	63.35%	89.04%	Switch during 2 <sup>nd</sup> offer period	Switch at the close of 2 <sup>nd</sup> offer period
May 2017	Syngenta (Switzerland)	Yes	67%	82.23%	94.68%	No switch	No switch – tender line stop trading after 1 <sup>st</sup> offer period
Nov 2017	Linde (Germany)	Yes	60% (75%)	64.5% <sup>2</sup>	?	TBA	Switch at the close of 2 <sup>nd</sup> offer period

# POTENTIAL IMPACT OF THE PROPOSAL & DISCUSSION POINTS

- This proposal would provide clear rules for the treatment of corporate events involving the creation of a new tendered line of shares.
- This would avoid potential miss-tracking for corporate events where the liquidity shifts to the tendered line or the performance between the two lines differs.
- Do you agree with the conditions that need to be met to switch identifiers?
- Is the close of the second offer period the right timing to switch the identifiers to the tendered line of shares?
- Should MSCI apply this proposed treatment to all countries? Or be more country specific where it is general market practice (e.g. Germany and Switzerland)?
- Should MSCI apply this proposal only for IMI securities?
- Should MSCI consider the volume traded on each line and/or the acceptance level to trigger the identifiers switch?

# SELECTED TOPICS

# ACCELERATED RIGHTS ISSUES IN AUSTRALIA

- Australian companies' trading is halted during the subscription period (“institutional offering”) and resumes trading on the ex-date.
- Currently, MSCI implements Australian rights issues as per its global methodology i.e. a Price Adjustment Factor (PAF) is applied on the ex-date and the number of shares is increased as of the close of the ex-date for in-the-money rights issues.
- For in-the-money rights issues, shareholders who subscribed receive the new shares at the open of the ex-date, whereas MSCI increases the number of shares only as of the close of the ex-date, creating potential replication issues.

## Discussion points:

- Do you participate in the institutional offering held during the suspension period?
- Do you face any issue in replicating MSCI's current treatment?
- Is a change in treatment necessary in order to cater to the replicability issues encountered for these specific Rights issues?
- If you would replicate Rights issue differently than the current treatment, what method would you use to replicate the Rights issue?

# SHARES/FLOAT UPDATES FOR M&AS

- Currently, MSCI implements pending number of shares and float updates at the time of non-market neutral corporate events (e.g. placements, acquisitions) qualifying for immediate implementation.
- These updates make corporate events such mergers and acquisitions between IMI<sup>1</sup> securities non-neutral.

## Discussion points:

- Do you generally participate to tender offers between IMI securities?
- Would you prefer that MSCI systematically reflect number of shares and float updates as part of regularly scheduled index reviews?
- Should MSCI introduce thresholds to reflect only significant updates at the time of the event and postpone smaller ones to the index reviews?
- Should MSCI extend this idea to other non-market neutral event types?

<sup>1</sup> “Investable Market Indexes” including large caps, mid caps and small caps.

# CROSS BORDER ACQUISITION/SPIN-OFF

- Only a sub-set of cross-borders acquisitions/spin-offs are creating replicability issues.
- In the past 9 years, we identified 4 events that fell into the red scenarios below. i.e.
  - The target security deleted at the offer price is in a time zone prior to the acquirer.
  - The parent security is in a time zone prior to the spun-off security.

## Past events falling in the red scenarios

- 2008: Cadbury Schweppes (UK) spinning-off Dr Pepper (US)
- 2014: Vodafone (UK) spinning-off Verizon (US)
- 2016: National Australia bank (AU) spinning-off CYBG PLC (UK)
- 2016: Ball Corp (US) acquiring Rexam (UK) for cash and shares

		Target/Spinning-off		
		AP	EMEA	AMERICAS
Acquirer/ Spun-off	Region			
	AP	Price: ok	Price: ok	Price: ok
	EMEA	Price: issue	Price: ok	Price: ok
	AMERICAS	Price: issue	Price: issue	Price: ok

- In these scenarios, options are to use either the previous day closing market price or to delay the products delivery.
- To enhance replicability, should MSCI delay the products for these red scenarios? Only for Standard securities?

# ABOUT MSCI

For more than 40 years, MSCI's research-based indexes and analytics have helped the world's leading investors build and manage better portfolios. Clients rely on our offerings for deeper insights into the drivers of performance and risk in their portfolios, broad asset class coverage and innovative research.

Our line of products and services includes indexes, analytical models, data, real estate benchmarks and ESG research.

MSCI serves 97 of the top 100 largest money managers, according to the most recent P&I ranking.

For more information, visit us at [www.msci.com](http://www.msci.com).



# NOTICE AND DISCLAIMER

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the “Information”) is the property of MSCI Inc. or its subsidiaries (collectively, “MSCI”), or MSCI’s licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the “Information Providers”) and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or disseminated in whole or in part without prior written permission from MSCI.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, “Index Linked Investments”). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on [www.msci.com](http://www.msci.com).

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.’s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.’s company filings on the Investor Relations section of [www.msci.com](http://www.msci.com).

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI’s products or services are not intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD, FEA, InvestorForce, and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor’s. “Global Industry Classification Standard (GICS)” is a service mark of MSCI and Standard & Poor’s.