Why do we invest in stocks? Many of us do so because stocks offer higher expected returns than cash and Treasury bills. This difference in expected returns between stocks and Treasury bills is called the equity premium. When investors evaluate an equity strategy, they often look at the cash holdings of the strategy. A higher allocation to cash means lower exposure to the equity premium—not a desirable outcome for investors pursuing higher expected returns. A high allocation to cash and cash-like instruments, however, is not the only way in which an equity strategy can reduce its exposure to the equity premium. A less obvious culprit is cash exposure through holdings in companies that are the targets of cash mergers.

Mergers and acquisitions are natural components of well-functioning capital markets. Every year, hundreds of publicly listed firms around the world become acquisition targets of other firms. From January 2011 through December 2018, more than 9,000 mergers were announced around the world. Most were initiated as cash deals, meaning the acquiring firm offered cash to the shareholders of the target firm.

In public, competitive markets, investors quickly incorporate new information into stock prices, including merger announcements. If the market expects a high probability that the acquisition will go through, the stock of the acquisition target becomes a source of cash that will flow to investors when the deal closes, and the amount of that cash is driven by the proposed acquisition price and the number of shares investors hold. As a result, when a firm becomes the target of a cash acquisition, its stock price generally moves toward the proposed acquisition price and stays there until the deal closes. While the stock price may stay slightly lower than acquisition price for reasons such as the time value of money, the stock effectively tends to trade like cash between the announcement date and the completion date. Investors holding stock of companies that are the target of a cash acquisition may therefore have unintentional cash-like exposure, meaning they

---

1. Equity premium refers to the difference in return between stocks and bonds.
may be giving up the desired expected returns associated with an equity investment. Indeed, through an examination of small cap mergers around the world following deal announcements, we find generally that stocks of companies targeted in a cash acquisition have offered returns no higher than those of a cash investment.

Consider an example. Restaurant Brands International announced its intent to acquire Popeyes Louisiana Kitchen for $79 per share on February 21, 2017. The same day, Popeyes’s stock price surged 19% from $66.12 to $78.73, landing within 27 cents of the acquisition offer. Popeyes’s stock price remained fairly flat following the announcement date, staying within $0.06 of deal terms, until the acquisition was completed one month later.²

Most cash mergers target small cap stocks and are successfully completed.³ Do most result in unintentional cash-like exposure?

We explore this question by examining the return to cash merger targets in excess of the return to cash following the announcement of an intended acquisition of stock in exchange for cash. We focus on small cap stocks, which between 2011 and 2018 comprised 61% of cash mergers in the US and over 90% of cash mergers outside the US.⁴ If the prices of cash merger targets generally trade at a fairly constant price, as observed in the Popeyes example, it is reasonable that they would have a return similar to cash.

³ See Appendix for detailed information.
⁴ See Appendix for detailed information.
Exhibit 2 plots the cumulative return of US small cap targets of cash mergers announced from 2011 through 2018 in excess of the daily federal funds rate from five days prior to the merger announcement to two months after the announcement. The cumulative return is determined for each stock and is market cap-weighted as of five days prior to announcement date, across all events. Stocks are removed from the weighted average once the deals are completed, terminated, or withdrawn. We present the approximately two-month window following the deal announcement because it is the period during which at least 50% of deals were still active across the countries examined. On the day of the merger announcement, indicated with the dark blue line as day 0, the excess return of the target was 19% on average as investors quickly incorporated news of the deal. We also observe a slight increase in return over cash on the day following the announcement, which can be attributed to mergers that are announced after market close on day 0. Following the announcement, the average excess return over cash stays close to zero.

It is natural for the market to assign different probabilities of completion to different merger proposals. Dispersion in expectations around deal success means the prices of some cash merger targets quickly move to deal terms, while the prices of other targets may go on trading more independently. We therefore focus next on the subset of merger targets that trade within +/-2% of deal terms at least once, a possible indication that market participants expect the deal to close.

Applying the same methodology to this subset of stocks, Exhibit 3 plots the cumulative weighted average return in excess of the daily federal funds rate from the first day that a stock trades within +/-2% of deal terms. We see that the average excess return of these cash merger targets is zero, indicating that holding such stocks provides an investment experience akin to holding cash. The dashed lines in the graph plot the average cumulative return at the 25th percentile and 75th percentile of all targets in this group and illustrate narrow dispersion across stocks.
We repeat the analysis using data from 10 other countries for which we have access to a local cash benchmark with daily history available: six developed countries (Australia, Britain, Canada, Germany, Japan, and Switzerland) and four emerging markets countries (Brazil, China, India, and Korea). Exhibit 4 shows the average cumulative return to small cap cash merger targets in excess of local cash benchmarks from five days prior to the merger announcement through 36 days following the announcement. Panel A shows a pattern in developed markets similar to that in the US: the average return goes up on the day of the merger announcement, as prices incorporate the news, and subsequently flattens out over the next two months.

In emerging markets, as shown in Panel B, the pattern is noisier. As mentioned, the market does not assign a high probability of completion to every announced merger, and the results suggest such skepticism may be more common in emerging markets. This is confirmed by the smaller percentage of cash mergers that trade within +/–2% of deal terms: 22% in emerging markets, compared to 53% in developed markets ex US and 80% in the US. Why? The differing behavior of M&A activity likely contributes to these outcomes. For example, the average cash merger in emerging markets seeks to acquire 44% of the target company, compared to over 61% in developed markets and over 88% in the US. Additional detail can be found in the Appendix.7

7 The upward slope in Panel B of Exhibit 4 is more pronounced farther out from announcement because mergers that take over 36 days to complete display more of an upward-sloping trend, in contrast to a flat pattern across mergers that complete in under 36 days and that are dropped from the graph upon deal completion.
Exhibit 4: Cumulative Return over Cash Benchmark around Merger Announcement
Developed ex US and Emerging Market Small Cap Cash Merger Targets
January 2011–December 2018

Panel A: Developed ex US

Panel B: Emerging Markets

Past performance is not a guarantee of future results. Performance may increase or decrease as a result of currency fluctuations.

Notes on Developed ex US: universe includes 801 small cap stocks in six selected developed countries that are targets of cash-only mergers announced from January 2011 to December 2018. The six selected countries are Australia, Britain, Canada, Germany, Japan, and Switzerland. The cash benchmarks used are, respectively, the Australian bank bill rate 3-month, ICE LIBOR for British Pound 3 month, Canada IBOR 3-month, German Bubill 0-3 Month total return index unhedged, Japanese government discount bill rate 3 month, and ICE LIBOR for Swiss Franc 3 month. Small cap stocks are defined as approximately the bottom 12.5% of market capitalization, excluding stocks with the highest relative price and lowest profitability.

Notes on Emerging Markets: universe includes 583 small cap stocks in four selected EM countries that are targets of cash-only mergers announced from January 2011 to December 2018. The four selected countries are Brazil, China, India, and South Korea. The cash benchmarks used are, respectively, the Brazil interbank deposit overnight rate, Shanghai interbank offered rate 1 month, Mumbai interbank offered rate 1 month, and Korea interbank offered rate 1 month. Small cap stocks are defined as approximately the bottom 15% of market capitalization, excluding stocks with the highest relative price and lowest profitability.

Filters were applied to data retroactively and with the benefit of hindsight. Groups of stocks and their returns are hypothetical, are not representative of indices, actual investments, or actual strategies managed by Dimensional, and do not reflect costs and fees associated with an actual investment.
To focus on those with a higher expectation of deal completion, we examine the subset of merger targets that trade within $\pm 2\%$ of deal terms at least once in Exhibit 5. We plot the average return to cash merger targets in excess of cash following the first day that the stock trades within the 2\% bound, and the 25th and 75th percentile outcomes are indicated with dashed lines. As in the US, the merger targets within developed markets outside the US exhibit cash-like exposure, as seen in Panel A. Their average excess return over cash is zero.

Again, the result is noisier within emerging markets in Panel B. This can largely be attributed to the smaller cross section and wider cross-sectional dispersion in returns across the four countries included in the analysis, as well as the lower average percentage of the target company acquired within emerging markets compared to developed markets.

---

**Exhibit 5: Cumulative Return over Cash Benchmark after First Day Trading like Cash**

**Developed ex US and Emerging Market Small Cap Cash Merger Targets**

**January 2011–December 2018**

Panel A: Developed ex US

Panel B: Emerging Markets

Past performance is not a guarantee of future results. Performance may increase or decrease as a result of currency fluctuations.

Notes on Developed ex US: universe includes 542 small cap stocks in six selected developed countries that are targets of cash-only mergers announced from January 2011 to December 2018. The six selected countries are Australia, Britain, Canada, Germany, Japan, and Switzerland. Trading like cash refers to stock price trading within $\pm 2\%$ and $\pm 2\%$ of deal terms. The cash benchmarks used are, respectively, the Australian bank bill rate 3-month, ICE LIBOR for British Pound 3 month, Canada IBOR 3-month, German Bubill 0-3 Month total return index unhedged, Japanese government discount bill rate 3 month, and ICE LIBOR for Swiss Franc 3 month. Small cap stocks are defined as approximately the bottom 12.5\% of market capitalization, excluding stocks with the highest relative price and lowest profitability.

Notes on Emerging Markets: universe includes 278 small cap stocks in four selected EM countries that are targets of cash-only mergers announced from January 2011 to December 2018. The four selected countries are Brazil, China, India, and South Korea. Trading like cash refers to stock price trading within $\pm 2\%$ and $\pm 2\%$ of deal terms. The cash benchmarks used are, respectively, the Brazil interbank deposit overnight rate, Shanghai interbank offered rate 1 month, Mumbai interbank offered rate 1 month, and Korea interbank offered rate 1 month. Small cap stocks are defined as approximately the bottom 15\% of market capitalization, excluding stocks with the highest relative price and lowest profitability.

Filters were applied to data retroactively and with the benefit of hindsight. Groups of stocks and their returns are hypothetical, are not representative of indices, actual investments, or actual strategies managed by Dimensional, and do not reflect costs and fees associated with an actual investment.

---

8. An examination of merger targets for which the acquirer seeks to own at least 60\% of the target firm, for example, indeed produces an excess return closer to zero; however, the number of such merger targets falls to 102 within emerging markets in this period.
INVESTOR IMPLICATIONS

Investors holding a portfolio of small cap stocks may unintentionally give up expected returns of an equity investment by holding stocks that are the target of cash acquisitions. The impact on investor outcomes will depend first on what portion of the holdings is providing unintentional cash-like exposure. Exhibit 6 plots the percentage of the small cap universe in the US, developed ex US, and emerging markets that comprises cash merger targets. Cash merger targets made up 1.64% of the US small cap universe on average each day from 2011 through 2018. This figure is slightly lower in developed ex US markets and emerging markets, at 0.77% and 0.79%, respectively. Market characteristics, such as average deal duration, and differences in tax and accounting rules may drive differences in the weight of cash mergers across regions.

Overall, our analysis suggests that investing in global small cap stocks could result in about 1% unintentional cash-like exposure. Moreover, the timing of cash flows resulting from merger completion can also pose challenges for small cap investors. By holding merger targets to deal completion, investors give up some control on the timing of cash flows into the portfolio and may therefore be forced to demand immediacy in quickly deploying large cash flows when the deal completes. The concern is further exacerbated by the fact that small cap stocks tend to have higher trading costs. Cash inflows from mergers will naturally vary over time and may make up meaningful portions of the investment universe in some periods. We illustrate this finding for a widely followed universe of US small cap stocks, the Russell 2000 Index, in Exhibit 7.

For example, a $1 billion fund holding the stocks that make up the Russell 2000 Index at index weights as of October 3, 2017, when Gilead Sciences completed its acquisition of Kite Pharma, would have had $4.3 million in cash instead of Kite Pharma stock as of the next business day.9 From 2011 through 2018, a portfolio of securities in the Russell 2000 Index would have had, on average, 4% of its assets turn into cash each year due to cash mergers, moving the portfolio away from the intended equity exposure.10

---

9. Index weights are as of previous month-end. Weight of Kite Pharma in Russell 2000 Index as of September 30, 2017, was 0.43%. Gilead Sciences, “Gilead Sciences Completes Acquisition of Kite Pharma, Inc.,” press release, October 3, 2017.
10. Figure indicates percentage of stocks by market capitalization weight in the Russell 2000 Index that are acquired for cash, on average, each year from 2011 through 2018.
Investors cannot control corporate actions, but they can plan for them. A systematic equity portfolio designed to efficiently and accurately target higher expected returns can incorporate information about corporate actions, including merger activity, every day. Through process-driven yet flexible implementation, small cap stocks that are the target of a cash acquisition and are trading very closely to deal terms can be systematically sold from the portfolio in a thoughtful manner without demanding immediacy from the marketplace. Thus, an approach that systematically divests of such merger targets reduces unintentional cash-like exposure while also maintaining control of the timing of cash flows. In essence, such an approach can pursue higher expected returns while managing risks and controlling costs.
Summary of US Small Cap Cash Merger Targets that Trade like Cash at Least Once, Announced from January 2011 to December 2018

<table>
<thead>
<tr>
<th>Year Announced</th>
<th>Number of Mergers</th>
<th>Average Deal Duration</th>
<th>Average Percent of Days Trading like Cash</th>
<th>Average Percent Acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>111</td>
<td>101</td>
<td>76.5%</td>
<td>97.6%</td>
</tr>
<tr>
<td>2012</td>
<td>138</td>
<td>111</td>
<td>75.9%</td>
<td>94.8%</td>
</tr>
<tr>
<td>2013</td>
<td>112</td>
<td>111</td>
<td>81.7%</td>
<td>97.0%</td>
</tr>
<tr>
<td>2014</td>
<td>74</td>
<td>141</td>
<td>67.0%</td>
<td>99.0%</td>
</tr>
<tr>
<td>2015</td>
<td>100</td>
<td>124</td>
<td>72.1%</td>
<td>98.0%</td>
</tr>
<tr>
<td>2016</td>
<td>107</td>
<td>148</td>
<td>77.3%</td>
<td>94.3%</td>
</tr>
<tr>
<td>2017</td>
<td>109</td>
<td>136</td>
<td>84.0%</td>
<td>98.0%</td>
</tr>
<tr>
<td>2018</td>
<td>80</td>
<td>109</td>
<td>77.3%</td>
<td>99.0%</td>
</tr>
<tr>
<td>Total</td>
<td>831</td>
<td>745</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Average</td>
<td>—</td>
<td>124</td>
<td>76.8%</td>
<td>97.7%</td>
</tr>
<tr>
<td>As Percent of All Mergers</td>
<td>89.7%</td>
<td>10.3%</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Notes: data are from Bloomberg LP, compiled by Dimensional. Trading like cash refers to stock price trading within +2% and -2% of deal terms. Small cap stocks include the bottom 10% of market capitalization. Small cap securities with the lowest profitability and lowest book-to-market ratios are excluded. Average deal duration and average % of days trading like cash are weighted by market cap as of the month-end prior to merger announcement. Bloomberg Barclays data provided by Bloomberg.
Summary of Developed ex US Small Cap Cash Merger Targets that Trade like Cash at Least Once, Announced from January 2011 to December 2018

<table>
<thead>
<tr>
<th>Year Announced</th>
<th>Number of Mergers</th>
<th>Deal Status</th>
<th>Average Deal Duration</th>
<th>Average Percent of Days Trading like Cash</th>
<th>Average Percent Acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Completed</td>
<td>Terminated/ Withdrawn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>142</td>
<td>132</td>
<td>10</td>
<td>127</td>
<td>58.3%</td>
</tr>
<tr>
<td>2012</td>
<td>129</td>
<td>113</td>
<td>16</td>
<td>167</td>
<td>56.5%</td>
</tr>
<tr>
<td>2013</td>
<td>110</td>
<td>98</td>
<td>12</td>
<td>295</td>
<td>43.8%</td>
</tr>
<tr>
<td>2014</td>
<td>127</td>
<td>112</td>
<td>15</td>
<td>130</td>
<td>51.1%</td>
</tr>
<tr>
<td>2015</td>
<td>80</td>
<td>62</td>
<td>18</td>
<td>90</td>
<td>49.6%</td>
</tr>
<tr>
<td>2016</td>
<td>137</td>
<td>121</td>
<td>16</td>
<td>162</td>
<td>48.4%</td>
</tr>
<tr>
<td>2017</td>
<td>138</td>
<td>118</td>
<td>20</td>
<td>119</td>
<td>63.5%</td>
</tr>
<tr>
<td>2018</td>
<td>130</td>
<td>122</td>
<td>8</td>
<td>96</td>
<td>48.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>993</td>
<td>878</td>
<td>115</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>143</td>
<td>52.7%</td>
</tr>
<tr>
<td><strong>As Percent of All Mergers</strong></td>
<td>88.4%</td>
<td>11.6%</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Notes: data are from Bloomberg LP, compiled by Dimensional. Trading like cash refers to stock price trading within +2% and -2% of deal terms. Small cap stocks include the bottom 12.5% of market capitalization. Small cap securities with the lowest profitability and lowest book-to-market ratios are excluded. Average deal duration and average % of days trading like cash are weighted by market cap as of the month-end prior to merger announcement. Bloomberg Barclays data provided by Bloomberg.

Summary of Emerging Markets Small Cap Cash Merger Targets that Trade like Cash at Least Once, Announced from January 2011 to December 2018

<table>
<thead>
<tr>
<th>Year Announced</th>
<th>Number of Mergers</th>
<th>Deal Status</th>
<th>Average Deal Duration</th>
<th>Average Percent of Days Trading like Cash</th>
<th>Average Percent Acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Completed</td>
<td>Terminated/ Withdrawn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>45</td>
<td>42</td>
<td>3</td>
<td>200</td>
<td>31.6%</td>
</tr>
<tr>
<td>2012</td>
<td>47</td>
<td>43</td>
<td>4</td>
<td>141</td>
<td>45.5%</td>
</tr>
<tr>
<td>2013</td>
<td>58</td>
<td>54</td>
<td>4</td>
<td>147</td>
<td>44.3%</td>
</tr>
<tr>
<td>2014</td>
<td>64</td>
<td>56</td>
<td>8</td>
<td>114</td>
<td>43.2%</td>
</tr>
<tr>
<td>2015</td>
<td>56</td>
<td>47</td>
<td>9</td>
<td>195</td>
<td>24.2%</td>
</tr>
<tr>
<td>2016</td>
<td>84</td>
<td>69</td>
<td>15</td>
<td>133</td>
<td>40.5%</td>
</tr>
<tr>
<td>2017</td>
<td>67</td>
<td>60</td>
<td>7</td>
<td>151</td>
<td>36.9%</td>
</tr>
<tr>
<td>2018</td>
<td>51</td>
<td>43</td>
<td>8</td>
<td>108</td>
<td>25.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>472</td>
<td>414</td>
<td>58</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>155</td>
<td>36.1%</td>
</tr>
<tr>
<td><strong>As Percent of All Mergers</strong></td>
<td>87.7%</td>
<td>12.3%</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Notes: data are from Bloomberg LP, compiled by Dimensional. Trading like cash refers to stock price trading within +2% and -2% of deal terms. Small cap stocks include the bottom 15% of market capitalization. Small cap securities with the lowest profitability and lowest book-to-market ratios are excluded. Average deal duration and average % of days trading like cash are weighted by market cap as of the month-end prior to merger announcement. Bloomberg Barclays data provided by Bloomberg.
Note on Cash Benchmarks: Cash benchmarks used throughout represent short-term rates generally available for short-term borrowing between financial institutions in a country. The cash benchmarks used include:

- Federal funds rate (US)
- Australian bank bill rate 3-month (Australia)
- ICE LIBOR for British pound 3 month (UK)
- Canada IBOR 3-month (Canada)
- German Bubill 0-3 Month total return index unhedged (Germany)
- Japanese government discount bill rate 3 month (Japan)
- ICE LIBOR for Swiss franc 3 month (Switzerland)
- Brazil interbank deposit overnight rate (Brazil)
- Shanghai interbank offered rate 1 month (China)
- Mumbai interbank offered rate 1 month (India)
- Korea interbank offered rate 1 month (Korea)

The information in this document is provided in good faith without any warranty and is intended for the recipient's background information only. It does not constitute investment advice, recommendation, or an offer of any services or products for sale and is not intended to provide a sufficient basis on which to make an investment decision. It is the responsibility of any persons wishing to make a purchase to inform themselves of and observe all applicable laws and regulations. Unauthorized copying, reproducing, duplicating, or transmitting of this document are strictly prohibited. Dimensional accepts no responsibility for loss arising from the use of the information contained herein.

“Dimensional” refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., Dimensional Ireland Limited, DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd., Dimensional Japan Ltd., and Dimensional Hong Kong Limited. Dimensional Hong Kong Limited is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

Past performance is no guarantee of future results. This information should not be considered a recommendation to buy or sell a particular security. Named securities may be held in accounts managed by Dimensional.

Data provided by Bloomberg Finance L.P. Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio.

UNITED STATES
Dimensional Fund Advisors LP is an investment advisor registered with the Securities and Exchange Commission.

CANADA
These materials have been prepared by Dimensional Fund Advisors Canada ULC. This material is not a sales communication. It is provided for educational purposes only, should not be construed as investment advice or an offer of any security for sale and does not represent a recommendation of any particular security, strategy or investment product. Commissions, trailing commissions, management fees and expenses all may be associated with mutual fund investments. Unless otherwise noted, any indicated total rates of return reflect the historical annual compounded total returns including changes in share or unit value and reinvestment of all dividends or other distributions and do not take into account sales, redemption, distribution, or optional charges or income taxes payable by any security holder that would have reduced returns. Please read the prospectus before investing. Mutual funds are not guaranteed, their values change frequently, and past performance may not be repeated.

AUSTRALIA and NEW ZEALAND
This material is issued by DFA Australia Limited (AFS Licence No. 238093, ABN 46 065 937 671). This material is provided for information only. No account has been taken of the objectives, financial situation or needs of any particular person. Accordingly, to the extent this material constitutes general financial product advice, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to the investor’s objectives, financial situation and needs. Any opinions expressed in this material reflect our judgement at the date of publication and are subject to change.

WHERE ISSUED BY DIMENSIONAL IRELAND LIMITED OR DIMENSIONAL FUND ADVISORS LTD.
Neither Dimensional Ireland Limited (DIL) nor Dimensional Fund Advisors Ltd. (DFAL), as applicable (each an “Issuing Entity,” as the context requires), give financial advice. You are responsible for deciding whether an investment is suitable for your personal circumstances, and we recommend that a financial adviser helps you with that decision.

WHERE ISSUED BY DIMENSIONAL IRELAND LIMITED
Issued by Dimensional Ireland Limited (DIL), with registered office 10 Earlsfort Terrace, Dublin 2, D02 T380, Ireland. DIL is regulated by the Central Bank of Ireland (Registration No. C185067). Information and opinions presented in this material have been obtained or derived from sources believed by DIL to be reliable, and DIL has reasonable grounds to believe that all factual information herein is true as at the date of this document.

DIL issues information and materials in English and may also issue information and materials in certain other languages. The recipient’s continued acceptance of information and materials from DIL will constitute the recipient’s consent to be provided with such information and materials, where relevant, in more than one language.
WHERE ISSUED BY DIMENSIONAL FUND ADVISORS LTD.

Issued by Dimensional Fund Advisors Ltd. (DFAL), 20 Triton Street, Regent's Place, London, NW1 3BF. DFAL is authorised and regulated by the Financial Conduct Authority (FCA). Information and opinions presented in this material have been obtained or derived from sources believed by DFAL to be reliable, and DFAL has reasonable grounds to believe that all factual information herein is true as at the date of this document.

DFAL issues information and materials in English and may also issue information and materials in certain other languages. The recipient's continued acceptance of information and materials from DFAL will constitute the recipient's consent to be provided with such information and materials, where relevant, in more than one language.

RISKS

Investments involve risks. The investment return and principal value of an investment may fluctuate so that an investor’s shares, when redeemed, may be worth more or less than their original value. Past performance is not a guarantee of future results. There is no guarantee strategies will be successful.

JAPAN

Provided for institutional investors only. This document is deemed to be issued by Dimensional Japan Ltd., which is regulated by the Financial Services Agency of Japan and is registered as a Financial Instruments Firm conducting Investment Management Business and Investment Advisory and Agency Business. This material is solely for informational purposes only and shall not constitute an offer to sell or the solicitation to buy securities or enter into investment advisory contracts. The material in this article and any content contained herein may not be reproduced, copied, modified, transferred, disclosed, or used in any way not expressly permitted by Dimensional Japan Ltd. in writing. All expressions of opinion are subject to change without notice.

Dimensional Japan Ltd.
Director of Kanto Local Finance Bureau (FIBO) No. 2683
Membership: Japan Investment Advisers Association

FOR PROFESSIONAL INVESTORS IN HONG KONG

This document is deemed to be issued by Dimensional Hong Kong Limited (CE No. BJE760) (“Dimensional Hong Kong”), which is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

This document should only be provided to “professional investors” (as defined in the Securities and Futures Ordinance [Chapter 571 of the Laws of Hong Kong] and its subsidiary legislation) and is not for use with the public. This document is not directed to any person in any jurisdiction where (by reason of that person’s nationality, residence, or otherwise) the publication or availability of this document are prohibited or which would subject Dimensional Hong Kong (including its affiliates) or any of Dimensional Hong Kong’s products or services to any registration, licensing, or other such legal requirements within such jurisdiction or country. When provided to prospective investors, this document forms part of, and must be provided together with, applicable fund offering materials. This document must not be provided to prospective investors on a standalone basis. Before acting on any information in this document, you should consider whether it is suitable for your particular circumstances and, if appropriate, seek professional advice.

Unauthorized copying, reproducing, duplicating, or transmitting of this material are prohibited. This document and the distribution of this document are not intended to constitute and do not constitute an offer or an invitation to offer to the Hong Kong public to acquire, dispose of, subscribe for, or underwrite any securities, structured products, or related financial products or instruments nor investment advice thereto. Any opinions and views expressed herein are subject to change. Neither Dimensional Hong Kong nor its affiliates shall be responsible or held responsible for any content prepared by financial advisors. Financial advisors in Hong Kong shall not actively market the services of Dimensional Hong Kong or its affiliates to the Hong Kong public.

SINGAPORE

This document is deemed to be issued by Dimensional Fund Advisors Pte. Ltd., which is regulated by the Monetary Authority of Singapore and holds a capital markets services license for fund management.

This advertisement has not been reviewed by the Monetary Authority of Singapore. This information should not be considered investment advice or an offer of any security for sale. All information is given in good faith without any warranty and is not intended to provide professional, investment, or any other type of advice or recommendation and does not take into account the particular investment objectives, financial situation, or needs of individual recipients. Before acting on any information in this document, you should consider whether it is suitable for your particular circumstances and, if appropriate, seek professional advice. Dimensional Fund Advisors Pte. Ltd. does not accept any responsibility and cannot be held liable for any person’s use of or reliance on the information and opinions contained herein. Neither Dimensional Fund Advisors Pte. Ltd. nor its affiliates shall be responsible or held responsible for any content prepared by financial advisors.