U.S. Defined Contribution Plans: Custom Designs and Their Impact
by Barry M. Gillman, CFA

Executive Summary

- DC plan auto-enrollment and auto-escalation of contributions are becoming more common.
- While target date funds (TDF) have gained wider acceptance, there may be better solutions through customizing TDFs and custom white label funds; for wealthier participants, custom SMAs may be especially useful.
- Plan sponsors can choose customized investment options for DC participants, albeit sometimes at higher cost. These include custom TDFs and white label funds.
- DC participants and retirees should consider the potential benefits of being more aggressive in their asset allocation between ages 65 and 75, the “power decade,” as this counterintuitive approach may boost wealth accumulation more so than in any other decade of life.

Introduction

The key issue for plan sponsors today no longer appears to be the debate over defined benefit (“DB”) versus defined contribution (“DC”) plans. Instead, the focus has moved to how best to improve a DC plan structure to be more effective for both sponsor and participant.

In this article, we address two broad topics. First, we look at customization in the context of fund design innovation. Second, we introduce research on the importance of maintaining or boosting investment returns near retirement.

Invitation for Collaboration

Today’s reality is that increasingly, plan sponsors are trying to find practical ways to evolve the defined contribution (“DC”) structure away from its original purpose as a supplementary savings plan to be more effective as a retirement plan for both sponsor and participant. This article is the second in the series “DC: The Way Forward.” It is designed as an ongoing working document, in which we aim to learn from the experiences and insights of leading plan sponsors in the United States.

We start by looking at three broad areas of customization in the context of fund design innovation. Recent innovations include custom white label funds, custom target date funds and custom separately managed accounts. We then
introduce research on the importance of maintaining or boosting investment returns near retirement. In the early years of a working career, the dominant impact on eventual retirement assets tends to be the contribution level. However, in later decades, the investment return is more critical. This flies in the face of current “conventional wisdom” and Target Date Fund design, that both suggest increasing fixed income weights as retirement nears.

We then combine these two concepts to show how DC sponsors can evolve their plan design and offerings to provide more effective solutions for their participants who may be retiring with material assets in the plan (a situation which will hopefully become more common in the future).

Input from our readers is not only welcome, but is essential to meeting the objectives of this project: facilitating the spread of information and ideas on how to develop more effective retirement plan structures. To provide your feedback, please contact Barry Gillman, Research Director, Brandes Institute Advisory Board, at barry.gillman@brandes.com, 858-523-3670.

Innovations in Fund Design: The Move from Contribution toward Customization

In our 2013 paper “The Future of Retirement Plans” we used a simple yet important equation to focus attention on the key issues:

“The Retirement Rule”: Benefits = (Contributions + Investment Returns) – Expenses

It remains a potential weakness of DC plans that if participants do not make sufficient contributions over their working lifetimes then it’s highly unlikely that they will be bailed out by investment returns high enough to enable them to build adequate retirement wealth. When we take into account the temptations and exigencies that cause early withdrawals or high loan balances, the problem of insufficient contributions is indeed a critical one.

As such, the influence and importance of the human resources function has increased, given that this is generally the plan sponsor’s department responsible for implementing these initiatives.

Many new initiatives in DC plans have focused on increasing contributions. For example, both auto-enrollment and auto-escalation are now more common. The latest annual survey¹ from the PSCA (Plan Sponsor Council of America) notes that in 2015, average contribution rates rose above 10% for the first time, with about two-thirds of the contribution from employees, and the balance from employers. The proportion of plans using auto-enrollment and auto-escalation also increased, to 58% and 68%, respectively.

PSCA surveys included coverage of large plans, but similar patterns of increasing contributions appear to be occurring in the broader market as well. Exhibit 1 shows contribution data provided by the leading DC recordkeeper, Fidelity Investments², which we believe are representative of the whole DC marketplace, not just large plans. As a result, the absolute numbers are smaller than in the PSCA survey, but the upward trend is similar.

¹ 59th Annual Survey of Profit Sharing and 401(k) Plans, December 19, 2016; 614 plans surveyed
² According to Plansponsor magazine’s 2017 Recordkeeper survey, Fidelity Investments has 37% of the total assets under administration of the top ten recordkeepers in the DC industry.
Contributions may not yet be at ideal levels, but the industry is clearly moving in the right direction.

Exhibit 1: Auto-Enrollment and Auto-Escalation: Popularity Is Rising

<table>
<thead>
<tr>
<th></th>
<th>3/31/2017</th>
<th>3/31/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans offering auto-enrollment</td>
<td>31.5%</td>
<td>22.4%</td>
</tr>
<tr>
<td>Plans offering auto-escalation</td>
<td>16.1%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Average contribution for auto-enrolled</td>
<td>8.2%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Average contribution for voluntary-enrolled</td>
<td>8.8%</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

Source: pionline.com June 27, 2017. Data reflects Fidelity Investments plans only.

Nevertheless, we would caution that an emphasis on contributions should not diminish the focus on investment returns, especially in today’s environment of historically low bond yields and lowered expectations for long-term returns. As more DB plans have closed in recent years, and participant contributions move to DC instead, it is true that those participant accounts are more dependent on contribution rates in their early years than on investment returns. During those early years, the power of compounding has not had sufficient time to allow returns to dominate contribution levels.

However, at the participant level, and for the demographics of DC plans in general, an increasing number of these accounts are “maturing” sufficiently that substantial wealth is being accumulated near retirement age, especially for those participants who have made adequate contributions. In that age range, the pendulum then swings back to investment returns as the dominant factor.

We believe this maturing of DC accounts is driving the next wave of innovation in the industry: the evolution from standard target date funds (“TDFs”) to more customized investment vehicles that are better suited to wealth management. In essence, in the early years of a participant account, a standard TDF is widely considered acceptable as the repository for contributions, but nearer retirement, driving investment returns higher is much more impactful on participant wealth than is the contribution level.

With this as the backdrop, we will examine two separate but related elements that can contribute to retiree wealth.

First, we look at the various types of customization now being introduced. What are these custom funds? How well do they meet the investment needs of participants through the life cycle? And what additional work and responsibility do they incur for plan sponsors?

Second, we analyze the relative importance of investment returns and contributions in a lower return environment. Do investment returns have the same impact on wealth accumulation throughout a participant lifecycle? And if not, when is it most important to boost returns? The answers to these questions carry important implications for if and when it makes sense to switch from standard TDFs to custom funds or wealth management accounts.
Custom Funds and Accounts

The TDF has been one of the most successful innovations in the savings industry, at least in terms of wide adoption by savers. According to Manulife’s Portfolio Solutions Group, by 2016, 48% of DC participants held TDFs, more than double the proportion from two years previously.\(^3\)

TDFs are well established now as the de facto standard qualified default investment alternative, allowing sponsors the safe harbor of providing at least an acceptable vehicle for those participants for whom investing is a mystery, and whose guiding principle appears to be “please do it for me.”

We noted earlier that industry initiatives focused first (and rightly so) on increasing contributions. Now attention has been moving toward customization. Here the goal is to provide investment vehicles that may be more suitable for specific plans, or for groups of participants in a plan.

Customization, by its nature, is specific to each plan and sponsor, the opposite of the “one-size-fits-all” TDF. Nevertheless, the custom fund concept can be split into three different, broad areas, and in this section we summarize each of these:

- Custom “white label” funds
- Custom TDFs
- Customized SMA (Separately Managed Accounts)

All three custom approaches have adherents, with white labeling being most prevalent, as shown in Exhibit 2.

### Exhibit 2: Relative Asset Size of Custom Strategies

<table>
<thead>
<tr>
<th></th>
<th>Assets ($billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom white label</td>
<td>305</td>
</tr>
<tr>
<td>Custom TDF</td>
<td>199</td>
</tr>
<tr>
<td>Custom SMA</td>
<td>120</td>
</tr>
</tbody>
</table>

Source: PIMCO 2017 DC Consulting Support and Trends Survey of 69 consulting firms with DC assets under advisement of over \$4 trillion.

**Custom White Label Funds**

Sponsors who are dissatisfied with the range of funds offered on their provider platform can create their own custom fund using managers they have selected. The fund vehicle is typically a unitized account administered by the plan’s custodian or platform provider. The custom fund is designed to be the “go-to” choice for an asset class. For example, instead of offering a menu of international equity mutual funds to their participants, sponsor XYZ might replace these on the menu with a custom “XYZ International Equity Fund,” where they select a small number of external managers to subadvise the fund, allocating assets among them. The “white label” relates to the fact that the underlying managers are not emphasized in the fund materials and are generally named only in the footnotes.

The custom white label fund may be appropriate only for those sponsors with the resources and expertise to handle manager selection and allocation, or those who retain a consultant with that capability. Larger sponsors, especially those with DB responsibilities, may fit this profile. On the assumption that they do have the manager selection skills, custom funds may boost returns and do so cost effectively. Fees may be lower than “off-the-shelf” mutual funds, and the sponsor has more scope to negotiate directly with the managers.

---

\(^3\) Manulife source: Tabulations from EBRI/ICI Participant Directed Retirement Plan Data Collection Project.
The reduction in the list of menu choices boosts economies of scale, while the white label structure makes it relatively easy for sponsors to change managers within the structure, avoiding the arduous process of moving participant assets if a fund needs to be replaced in a traditional mutual fund menu.

With potential benefits for both sponsor and participant, custom funds are becoming increasingly of interest, particularly among sophisticated plans. At present, it seems that there’s more talk than action, but that’s typical of innovations as they are gradually adopted by a marketplace. For example in 2016, SEI found only 15% of sponsors likely to use custom white label funds within the next year. Nevertheless, where they are used, it does tend to be by the larger funds: over 80% of plans using custom funds have plan assets over $1 billion.

Custom Target Date Funds

The advantage of the standard TDF is that it provides a lifecycle investment that can be seen as an acceptable default program for all participants. All an individual needs to do is decide on a target (retirement) date and the fund does the rest. But some sponsors are pushing back against the one-size-fits-all concept, and designing their own custom TDFs, taking into account the demographics and sophistication of their participants. A 2014 survey found that 49% of plan sponsors saw value in custom TDFs, yet the data in Exhibit 2 suggests that these are still less than 5% of DC assets.

In these custom TDFs, sponsors can have input into the glide path, choice of asset classes, and manager selection. Note that even after the customization, the custom TDF is still a “one-size-fits-all” fund. But now, it’s the sponsor that gets to determine the “one size,” not an external vendor.

Costs are typically materially higher than the lowest fee standard TDFs. Vanguard notes that compared to a standard low-fee TDF, the costs of customization may run to an additional 40-50 basis points, along with resources needed for additional oversight and administrative complexity. This could be especially true when the custom TDF uses less liquid “alternative” asset classes.

The benefits to the individual participant are dependent on the sponsor’s ability to create a custom TDF that produces better long-term net returns than a standard TDF over a full lifecycle.

Customized Separately Managed Accounts (Custom SMA)

The customization discussed so far is at the sponsor level. Custom white label and TDFs may be tailored to the needs of each sponsor’s plan, but at the participant level everybody still has to choose from the identical menu of choices in that plan. Customizing SMAs changes this dynamic, providing the ability for each participant to tailor his or her portfolio. Essentially, the custom SMA has the same capabilities as a conventional, taxable SMA provided through an investment advisor, but in the plan sponsor context these SMAs are provided within the plan menu.

4 SEU 2016 Defined Contribution Survey
5 2016 Callan DC Trends Survey
6 2014 Towers Watson Plan Sponsor Survey
7 Vanguard, Summer 2016, “A Powerful Combination: Target Date Funds and Managed Accounts.”
8 There may still be constraints on the participant’s choice of investment, which may be limited to those on the SMA provider’s platform.
The primary role of the sponsor is selecting the organization providing the investment services, and then participants are able to work individually with investment advisors within that firm. For participants with substantial assets, this can be a valuable benefit, especially if their taxable assets outside the plan aren’t large enough to justify the personal attention of an investment advisor. On the other hand, costs are likely to increase materially when moving to a custom SMA. Nevertheless, custom SMAs are likely to prove attractive to an increasing slice of those at the top end of the asset spectrum.

For the custom SMA provider the attraction is a “tied” channel for new business, and one that can potentially lead to accessing taxable assets from these clients as well. For sponsors, the custom SMA is not a replacement for other menu options, as it is likely to be suitable for only a small proportion of their participants: generally, those with the most assets and who are relatively close to retirement. As we note elsewhere in this article, that’s a group that is not particularly well-served by the standard TDFs and fund menus, or even the custom versions of those funds where offered.

Providing access to custom SMAs adds to a sponsor’s workload and fiduciary duty, for example having to select an appropriate provider, with no cost benefit to the plan. So why offer it? The answer reflects credit on the plans that have gone this route: because it’s an appropriate thing to do for a number of their participants.

Plan Sponsor Perspectives

Introducing customization to plan design and menus implies a significant increase in a DC plan sponsor’s responsibilities and workload.

Introducing customization to plan design and menus can mean a significant increase in a DC plan sponsor’s responsibilities and workload. TDFs typically take the industry in the other direction, providing participants with a simple default choice, and generally reducing the responsibility and resource-needs of the plan sponsor. In addition, low fee and/or passive management strategies are increasingly popular in an environment where sponsors and consultants may be concerned about lawsuits or just being second-guessed for approving active strategies or higher fee funds. Customization can increase a sponsor’s burden, in terms of legal responsibility, cost and workload.

While making sure that all the fiduciary issues are addressed, there’s also the practical question of the “user-friendliness” of DC plans. Behavioral analysis suggests that too many choices on a menu can hinder effective decision-making, and many plans have built up extensive lists of fund choices. In discussing customization with plan sponsors, some have commented that one of the main advantages of using custom funds is to simplify the range of choices for participants.

Sempra Energy, the San Diego-based utility and energy company, is in the process of launching four new custom funds, one each for U.S. large and small/mid cap equity, plus international equity, and diversified fixed income. Carina Coleman, Sempra’s Director of Pension & Trust Investments, noted that one of the goals was to help participants through providing a simpler and more understandable menu. Mark Herman is Manager of Retirement and Wealth Programs at Sprint Corporation, where a custom global equity fund was introduced three years ago, replacing a line-up of multiple active equity funds. Mr. Herman noted that the new global fund not only simplified participant choice, it has helped reduce some of the home country and growth biases that had built up when the choice of equity funds on the menu was much broader.

As we noted earlier, this is a working paper, and we continue to seek input from plan sponsors and consultants on their perspective, which may be included in subsequent articles on this and related topics. In particular, we expect to focus on how plan sponsors evaluate success over the long-term, both for themselves and their participants.
Investment Returns: Testing the 10/30/60 Rule

In “The Future of Retirement Plans” we drew attention to an excellent book, The Retirement Plan Solution, written in 2009 by Don Ezra, Bob Collie and Matthew X. Smith. One eye-opening finding in the book is that in a typical DC structure, around 60% of all the money paid out from the plan over a participant’s lifetime came from investment returns earned after retirement age (assumed to be 65 in their calculations). Only 10% came from contributions, and the remaining 30% from investment returns during the working years.

They found these proportions robust under varying assumptions (with one exception to which we will return shortly), and hence named this the “10/30/60 rule.” The authors stress that this is not to say that contributions are unimportant: without the contributions, there are no investment returns. But the 10/30/60 rule does illustrate the importance of long-term investment returns and the power of compounding over time.

Coming back to the exception to the 10/30/60 rule, they note that its proportions break down if pre-retirement investment return assumptions have to be lowered.

Close to a decade after this book was written, that is now a critical question. The 7.5% return assumption used in the book’s 10/30/60 calculations now seems overoptimistic. With long-term bond yields in the 2-3% range, and even allowing for a reasonable assumed equity premium, 5% may be a more realistic assumption today.

Ezra, Collie, and Smith note that their calculations can be replicated in a straightforward Excel spreadsheet, and invited readers to “play with the numbers.” So we did. We left all other assumptions unchanged other than reducing salary inflation by the same 2.5% per year that we reduced returns.

It should not be a surprise that when we reduce returns this way, the proportion of lifetime distributions derived from investment returns does indeed drop. It goes down from 90% of the total to 80%. And the dominance of post-retirement returns also is trimmed: from 60% to 46%. This is typical of the situation today: contributions are increasingly important, but still may only make up a fifth of eventual distributions. Investment returns may be lower than they have been historically, but they remain critical both pre- and post-retirement.

But playing with this simplistic model can also provide some penetrating insight into the decisions sponsors and participants have to make when evaluating standard TDFs against potentially more “high octane” custom funds or other wealth management products.

**Boosting Returns: The “Power Decade”**

That insight comes from asking ourselves a simple question.

If we could boost returns (for example from 5.0% per year to 7.5% per year) for only one decade of the full lifecycle, which decade should we choose? Should we pick the earliest decade (age 25-35) on the basis that this will get the initial contributions off to a “flying start” that will then be compounded over a lifetime? Or perhaps it should be the pre-retirement decade (55-65), when salary inflation has pushed contributions to their peak?

---

9 The 10/30/60 model assumes a working career starting at 25, and continuing to retirement 40 years later at 65.
The answer is “neither of the above!” By testing the impact of a return boost one decade at a time, we see in Exhibit 3 that there is one decade that stands out from all the others.

**Exhibit 3: The Power Decade**

*Percentage increase in lifetime distributions from hypothetical DC plan, when returns are boosted from 5.0% to 7.5% for just one decade*

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Increase in Retirement Distributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 25-34</td>
<td>0%</td>
</tr>
<tr>
<td>Age 35-44</td>
<td>5%</td>
</tr>
<tr>
<td>Age 45-54</td>
<td>10%</td>
</tr>
<tr>
<td>Age 55-64</td>
<td>15%</td>
</tr>
<tr>
<td>Age 65-74</td>
<td>44%</td>
</tr>
<tr>
<td>Age 75-84</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: Brandes Institute. We attempted to replicate the methodology described in the book, “The Retirement Solution.” Assumptions: Returns of 5% per year, except for boosted decade at 7.5% per year. Contributions starting at age 25 at 4% of salary, increasing each year by 2.25% of the previous year’s contribution, retirement at 65 with an initial distribution of 5.11% that subsequently increases at a rate of 3% per year, calculated to precisely exhaust this hypothetical account at age 90 based on an annualized 5% return assumption. This hypothetical example is for illustrative purposes and does not reflect the performance of any specific investment. Actual results will vary. Does not include the effects of taxes or investment fees and expenses.

The “power decade” is the one immediately after retirement, age 65-74. Intuitively, this makes sense: it is the decade when accumulated savings are at a peak after a lifetime of contributions, and before significant distributions. What is surprising is how much more impact the decade’s worth of return boost has compared to other decades before or after. The 44% increase in total distributions is almost double the impact of the next best decade, the pre-retirement age range of 55-64.

The message is clear. While returns are always important, boosting returns immediately after retirement age can have a significant impact on wealth accumulation. Earlier in the lifecycle, the focus may be on making contributions while achieving an adequate return. But retirees and their advisors would do well to focus on wealth maximization after age 65. They should think carefully about their asset management and choice of funds at that age: “kick back and relax” in the early days of retirement may be a fun lifestyle choice, but it may not be a good investment strategy! Of course, this analysis focuses exclusively on asset growth. Retirees also need to consider their liabilities and an appropriate asset mix given expectations for expenses that will need to be met during retirement.

**Unappreciated Risks**

Despite the importance of the “power decade,” a focus on increasing post-retirement returns is not the message typically delivered by the investment industry. Quite the contrary: many advisors suggest cutting back on equities in favor of bonds, and TDF allocations generally reflect this increased allocation to bonds as the participant ages.

Much has been written on the dangers of investing too aggressively in the early days of retirement (e.g. the 65-75 age range). The “power decade” concept can indeed cut both ways: a sharp reduction in returns in that decade would be very painful. A big loss in that period may be hard to recover, especially for those who aren’t
in great health and who may not live past the average life expectancy of the mid-80s. That type of loss is especially hard for those who have only modest retirement savings and truly cannot afford a hit of 20-30% to these savings, as was frequently cited after the Financial Crisis of 2007-9. That's why TDFs generally are moving increasingly into “safe” bonds for participants in those age brackets.¹⁰

Nevertheless, we remain concerned that there are unappreciated risks facing retirees, who may feel that if they've done “the right thing,” contributing adequately from salary and using a TDF, then their retirement assets will be “safe.” The implication that the standard TDF allocation is a “low risk” approach is misleading in our view. It assumes that holding long maturity bonds does not expose the owner to substantial risk of capital loss. Sequence of returns is another unappreciated risk for most participants. This is totally out of control of the participant (or sponsor) yet can have a dramatic impact on an individual's eventual assets and income replacement ability at retirement. The detail is beyond the scope of this article, but is well-illustrated in a 2017 Callan Institute paper on TDFs.¹¹

**Customization and the “Power Decade”**

For those retiring in good health, with substantial assets inside and possibly outside their retirement plans, we believe the focus should be on boosting returns in the “power decade.” Admittedly this group is a minority of the demographic, a partial consequence of low net savings and contribution rates in the past. However, these individuals generally can afford to take on the risk of losses early in retirement if the risk-reward balance for emphasizing wealth-creating equity investments is skewed in their favor.

For those “retiree investors” who have accumulated substantial assets in both their tax-deferred and taxable accounts, the movement toward customization should prove positive overall, but we believe it will be in the area of custom SMAs that they will see the biggest benefits.

These investors face a complex situation in planning their retirement strategies and managing the assets. The availability of custom SMAs should allow better integration between tax-deferred and taxable assets, as well as access to a much broader range of investment strategies. As we've shown, the importance of that “power decade” age range of 65-75 should not be underestimated. If there's one time in the life cycle when the benefits of professional investment advice could pay off, this would be the one.

**Conclusion**

DC plans are evolving in an effort to meet the retirement needs of the participants. Plan sponsors have made progress in encouraging participants to increase contributions through auto-enrollment and auto-escalation. TDFs are well-established as the default vehicles for participants.

Increased contributions and “plain vanilla” TDFs provide base level adequacy for participants in the early stages of the life-cycle. But as participants age, and their assets grow, the “one-size-fits-all approach” may not work so well.

Customization may provide an answer, or at least the next step toward one. Customized funds, whether white label or TDF, allow plan sponsors to do a better job of meeting the needs of their own participants, albeit at increased cost.

¹⁰ For readers who enjoy mental arithmetic, we invite them to estimate the price fall on a US Treasury 30-year maturity bond with a 3% coupon if the yield to maturity increases from 3% to 5%. (Clue: the answer is more than 30%).

¹¹ “Reaching for Higher Ground” Callan Institute, August 2017; note in particular Exhibit 2 on page 3.
increased cost. They are still funds where “one size fits all participants” but the plan sponsor can choose the design.

The participants who may benefit most from customization are those who have sufficient accumulated wealth in tax-deferred and possibly taxable assets. This is the only form of customization that gives flexibility to participants and their advisors to make the key decisions on assets and allocations.

The “power decade” of ages 65-75 is the most impactful in terms of returns. For participants of limited means, the conventional TDF approach seeks to emphasize safety on the downside. For the smaller proportion of participants that have managed to accumulate significant assets, there’s a strong case in our view to seek higher returns in that power decade, and beyond. Custom SMAs can be very effective in pursuing that goal, providing participants with professional guidance and access to a broader range of investment possibilities.
Glide path: The formula for the asset allocation mix of a target date fund from inception to the target date, with the mix typically becoming more conservative.

Basis point: 1/100 of 1%.

This material was prepared by the Brandes Institute, a division of Brandes Investment Partners®. It is intended for informational purposes only. It is not meant to be an offer, solicitation or recommendation for any products or services. The foregoing reflects the thoughts and opinions of the Brandes Institute. The views expressed by the participants may not represent the views of the Brandes Institute or Brandes Investment Partners.

Brandes Investment Partners does not guarantee that the information supplied is accurate, complete or timely, or make any warranties with regard to the results obtained from its use. Brandes Investment Partners does not guarantee the suitability or potential value of any particular investment or information source.

The information provided in this material should not be considered a recommendation to purchase or sell any particular security. It should not be assumed that any security transactions, holdings or sector discussed were or will be profitable, or that the investment recommendations or decisions we make in the future will be profitable or will equal the investment performance discussed herein. Strategies discussed herein are subject to change at any time by the investment manager in its discretion due to market conditions or opportunities. International and emerging markets investing is subject to certain risks such as currency fluctuation and social and political changes; such risks may result in greater share price volatility. Please note that all indices are unmanaged and are not available for direct investment. No investment strategy can assure a profit or protect against loss.

Copyright © 2018 Brandes Investment Partners, L.P. ALL RIGHTS RESERVED. Brandes Investment Partners® is a registered trademark of Brandes Investment Partners, L.P. in the United States and Canada. Users agree not to copy, reproduce, distribute, publish or in any way exploit this material, except that users may make a print copy for their own personal, non-commercial use. Brief passages from any article may be quoted with appropriate credit to the Brandes Institute. Longer passages may be quoted only with prior written approval from the Brandes Institute. For more information about Brandes Institute research projects, visit our website at www.brandes.com/institute.