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THE GROWING INTERNATIONAL MARKET FOR PENSION RISK TRANSFER **BY AMY KESSLER AND WILLIAM MCCLOSKEY**

The global pension risk transfer marketplace is growing dramatically, with more than \$240 billion in transactions completed since 2007. In the United Kingdom, the United States and Canada, hundreds of companies have transferred pension risk to insurers and reinsurers, with at least 35 pension funds executing transactions over \$1 billion. Each of these transactions honors and protects the lifetime benefit promise to plan participants while achieving significant corporate finance benefits for the plan sponsor.

Recent noteworthy transactions demonstrate the power of the de-risking trend. General Motors, Rolls-Royce, Verizon, British Telecom, Bell Canada, Motorola Solutions, Bristol-Myers Squibb, GlaxoSmithKline, Kimberly-Clark and AkzoNobel are among the leading companies that have completed pension risk transfer transactions. Each company differs in resources, constraints, strategic objectives and definitions of success. Accordingly, each deal was tailored with unique features to meet the company's needs and reflect a broad range of transaction sizes with agreement amounts up to \$27.7 billion. They all have in common the goals of securing the benefits promised to members and achieving a lower-risk future for the sponsor.

**TODAY, PENSION
RISK TRANSFER IS:**

INCREASINGLY GLOBAL

**EMPLOYED BY
CORPORATIONS OF ALL
SIZES AND INDUSTRIES**

**FLEXIBLE AND
CUSTOMIZABLE**

**AIMED AT ACHIEVING
A LOWER-RISK FUTURE**

**More than \$240
billion in pension
liabilities have been
transferred since
2007:**



**\$167.4 billion
in the United
Kingdom**



**\$62.2 billion
in the United
States**



**\$11.1 billion in
Canada.**

Sources: LIMRA, Hymans Robertson and Prudential analysis as of year-end 2014.

The need for a lower-risk future is acute. Despite a sustained equity market rally in recent years, more than a decade of financial market instability combined with sustained low interest rates and rapid life expectancy increases have taken their toll. The risk position most pension funds maintain is challenging due to underfunding and high allocations to risky assets that don't match the liability. Pension assets rise and fall in a manner bearing no relationship to the changes in liability value. With this risk profile and a prolonged period of low rates, even large cash contributions haven't brought funded status to sustained higher ground.

By implementing appropriate de-risking strategies, plan sponsors and fiduciaries can:

- Achieve plan contribution certainty;
- Improve consistency of financial results and realize corporate finance benefits;
- Allow greater focus on the firm's core business; and
- Enhance retirement security for employees and retirees.

Plan sponsors and fiduciaries who take action to manage or transfer pension risk can confidently fund their pension obligations and gain a significant advantage relative to those who don't.

TELLING THE FUTURE—TODAY'S TREND IN THE UNITED KINGDOM

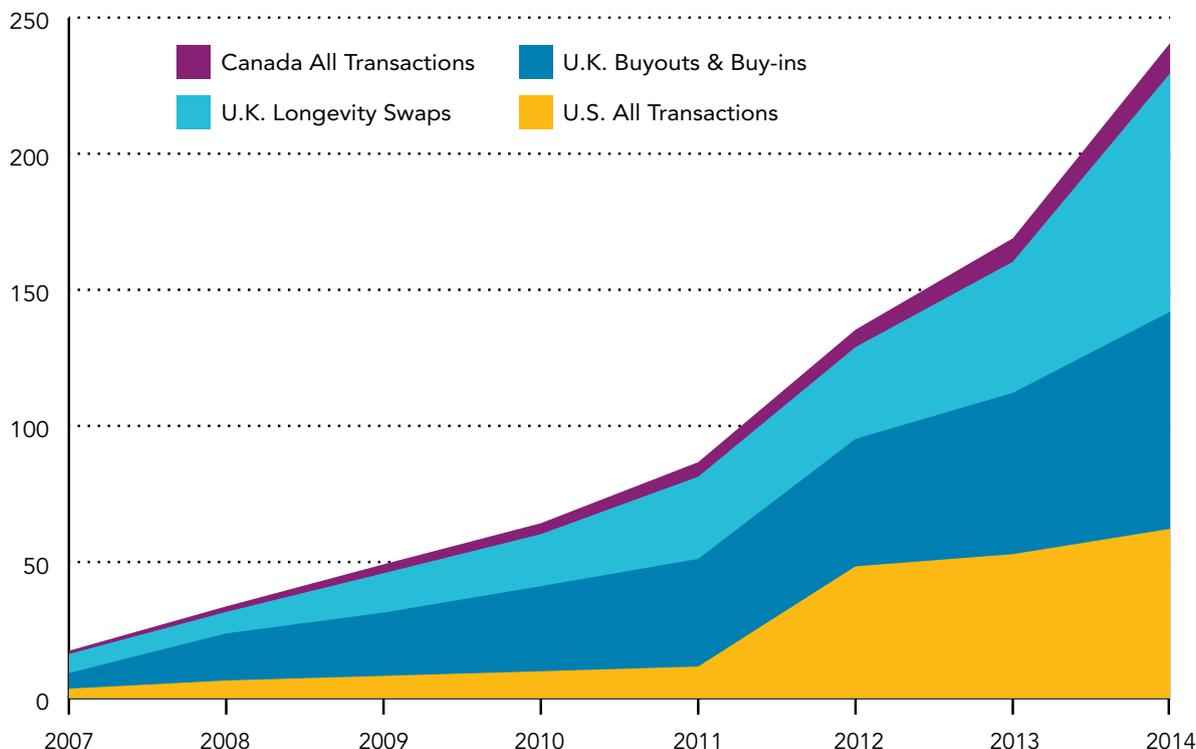
The United Kingdom is widely recognized as the global leader in pension de-risking,

with over \$167 billion in liabilities transferred between 2007 and 2014. The United Kingdom also leads the world in innovation, with groundbreaking products and approaches that enable pension funds to customize their de-risking strategies.

Over the past five years, North American plan sponsors have watched U.K. developments with growing interest. In 2012, the landmark General Motors and Verizon transactions transformed the U.S. market, modest since the 1990s. Despite these and many other agreements, the United States still trails the United Kingdom with only \$62 billion in transaction volume between 2007 and 2014. Canada comes in a distant third with just \$11 billion over the same period.

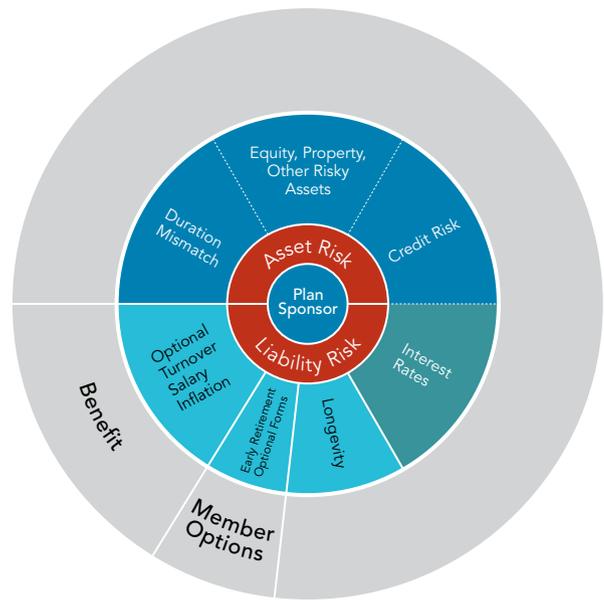
EXHIBIT 1: THE UNITED KINGDOM LEADS THE WORLD IN TRANSACTION VOLUME AND INNOVATION

Cumulative Annual Transaction Totals by Country/Product



Data in USD billions
Sources: LIMRA, Hyman Robertson and Prudential analysis, YE 2014

**EXHIBIT 2: ASSET
AND LIABILITY RISKS
FOR DEFINED-BENEFIT
PENSION PLANS**



Source: Prudential

Exhibit 1 shows the collective transaction activity in the United States, United Kingdom and Canada between 2007 and 2014. In the United States (shown in yellow at the bottom of the graph), all the transactions have been pension buyouts or buy-ins, holistic solutions in which insurers assume all of the asset and liability risks. The buyout completely removes the liability from the sponsor's balance sheet.

In Canada (shown in purple at the top of the graph), the total transaction volume has been modest and, through the end of 2014, was comprised solely of pension buyouts or buy-ins.

Turning to the United Kingdom, the market momentum is apparent. The volume of buy-in and buyout transactions completed in the United Kingdom (shown in dark blue) exceeds all U.S. and Canadian transaction volume combined. The U.K. activity is impressive considering the country's relative size, and, today, U.K. market momentum is accelerating because of competitive pressure in every industry peer group. The same competitive pressure to de-risk may exist in the United States and Canada in five years.

While U.K. buy-ins and buyouts are impressive, the United Kingdom boasts an additional market segment for longevity risk transfer (shown in light blue). This market segment is considerable and reflects transactions covering longevity risk alone—the risk of annuitants and beneficiaries living longer than predicted. Longevity risk transfer is thriving in the United Kingdom because it's the capstone to any pension hibernation strategy. For a company seeking to manage pension risk on the balance sheet, liability-driven investing (LDI) can be effective in building an asset strategy that matches the expected liability. However, it cannot address the fact that the expected liability is uncertain and that

the pension scheme may have underestimated the life span of its members. In response to these concerns, some leading U.K. plan sponsors have proactively transferred their longevity risk to the insurance and reinsurance community.

Today, some of the largest and most sophisticated U.K. pension funds choose to combine LDI and longevity risk transfer for an effective hibernation strategy on some or all of their liabilities. Industry leaders like BMW, Rolls-Royce, Aviva, British Airways and British Telecom have all chosen this approach. In early 2015, Bell Canada became the first North American pension fund to complete a longevity risk transfer transaction on \$5 billion of pension liabilities. This watershed transaction was the first longevity risk transfer outside of the United Kingdom.

When we look at the United Kingdom today, we see the global future of pension de-risking and the shape of the risk transfer market to come to other countries. We see a lineup of flexible solutions designed to meet the needs of any company on a path to a lower-risk future. In the United Kingdom, plan sponsors are making personal decisions specific to their resources, constraints, objectives and definitions of success. These decisions lead to exceptionally tailored de-risking strategies that are rapidly going global.

**UNDERSTANDING PENSION
PLAN RISK**

Managing a defined-benefit pension plan is a complex and challenging undertaking. A pension is a promise to pay monthly benefits for as long as the plan participants live, regardless of what happens to the assets.

Exhibit 2 provides a framework to describe the pension risk surrounding plan sponsors, with asset risks on the top and liability risks on the bottom.

Key sources of liability risk include costs of running the plan and member options (when to retire and what form of benefit to take), which can have a substantial impact. Salary increases and inflation can also increase the liability, along with longevity risk. Taken together, these sources of liability risk mean that future plan obligations aren't known with certainty and managing an asset portfolio against an unknown liability is difficult. Interest rate risk is also among the liability risks because a decline in interest rates increases the present value of the liability reported on the balance sheet.

From an asset perspective, plan sponsors face many risks. The conventional wisdom focused on investing to maximize long-term returns, which led to a typical asset allocation of 40 to 50 percent fixed income

and cash with 50 to 60 percent in riskier asset classes such as equities, private equity, hedge funds, commodities and real estate. Equity risk and credit risk dominate the risk profile, together with duration risk, which arises because the assets and liabilities aren't matched and do not move in concert. Instead, the risky assets fluctuate in ways that bear no relationship to the underlying liabilities, which lead to significant funding volatility.

FUNDING VOLATILITY

Volatility abounds for a pension fund that has not yet begun to de-risk. The average U.S. pension fund twice lost over 30 percent in funded status during market disruptions since 2000. Between 2000 and 2007, nearly \$270 billion in cash contributions have been required along with substantial market gains

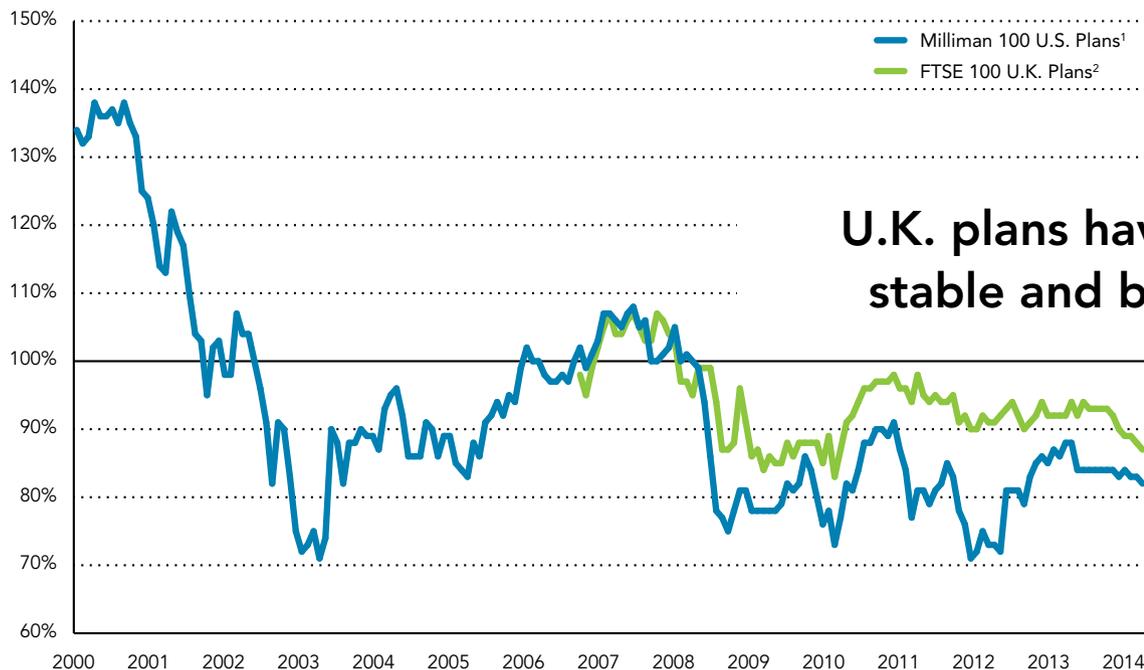
to return U.S. pension funds to good health. The extreme volatility is at its worst in recessions and falling rate environments and is rooted in two key challenges.

1. Pension assets and liabilities are usually not matched. As rates fall, liabilities rise sharply, but only the portion of the asset portfolio invested in duration-matched bonds will gain in value to keep pace. If the majority of the asset portfolio is invested in risky assets, those assets fluctuate in ways bearing no relationship to the underlying liabilities. This mismatch is particularly damaging when rates and equities are falling at the same time, which often occurs during recessions. Falling rates will increase the liabilities and falling equities will decrease the assets, creating a powerful downdraft on funded status.

2. Pension funds are usually underfunded, which introduces leverage. At the end of 2014, the average U.S. pension plan was only 81.7 percent funded (Milliman 2015 Corporate Pension Funding Study). The unfunded liability is leverage and, as in any levered investing strategy, gains and losses will be magnified when measured relative to the full amount of the liability.

The combined effect of these challenges is evident in Exhibit 3, which shows the funded status volatility of Milliman 100 U.S. corporate pension plans in blue, with their FTSE 100 U.K. counterparts in green. As the graph indicates, the U.K. plans—with their higher-funded status, higher fixed-income allocations and better match of assets and liabilities—have been significantly more stable during and after the financial crisis.

EXHIBIT 3: FUNDED STATUS VOLATILITY



U.K. plans have been more stable and better funded.

¹Source: Milliman 100 Pension Funding Index; the 100 largest U.S. corporate pension plans, YE 2014

²Source: Aon Hewitt, "Aon Hewitt Global Pension Risk Tracker," as of Sept. 7, 2014. <https://rfmtools.hewitt.com/PensionRiskTracker>. Funding ratio (cumulative assets/liabilities) of all pension schemes in the FTSE 100 index on the accounting basis.

EXHIBIT 4: RETIRED LIFETIMES FOR U.S. AND U.K. MALES HAVE INCREASED SIGNIFICANTLY

U.K. companies reduce leverage in their pension funds pursuant to the strict funding requirements enforced by The Pensions Regulator. Many U.K. companies have also taken bold steps to manage asset risks and reduce their asset and liability mismatch.

The leading strategy involves:

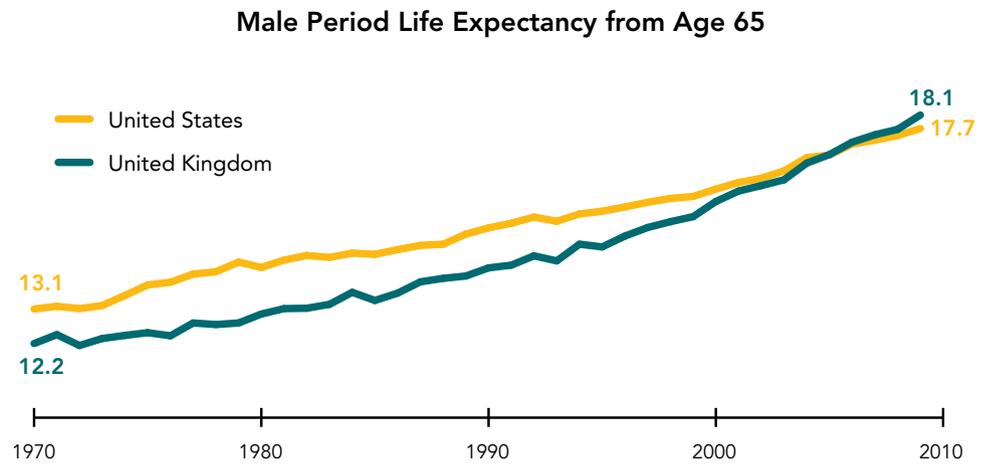
- Holding 70 to 80 percent of assets in custom LDI solutions, including liquid and illiquid fixed income selected for duration, yield and inflation protection; and
- Retaining 20 to 30 percent of assets in riskier asset classes like equity, private equity, hedge funds, commodities and real estate.

This approach allows a pension fund to keep the diversification benefit between fixed income and risk assets. At a ratio of 70 to 80 percent fixed income, funded status volatility coming from asset/liability mismatch is well managed. Downside risk is small; however, the upside earnings potential is also modest. There is not enough upside in this asset strategy to outrun a life expectancy increase, should one arise. To gain control over their liabilities, many leading U.K. plan sponsors hedge their longevity risk. Forward-thinking companies in North America are beginning to follow suit.

SPENDING MORE TIME IN RETIREMENT

Exhibit 4 shows the retired lifetimes—or life expectancy at age 65—of men in both the United Kingdom and United States and shows how these expectations have changed since 1970.

The typical U.S. male’s retired lifetime increased by 35 percent over the past 40 years, and men in both the United States and United Kingdom can expect to spend roughly 18 years in retirement. Over the same 40-year historical period, U.S. pension



Sources: CDC, OECD, Aon Hewitt Global Longevity Tracker. <https://rfmtools.hewitt.com/GlobalLongevityTracker/>

plan sponsors’ liabilities have increased by 5 to 8 percent in each decade to keep pace with these life expectancy increases. The most recent update in U.S. pensioner mortality tables was released in 2014.

With the current focus on longevity tables, an opportunity exists to include longevity risk in the greater pension risk discussion. If people live longer than expected, pension liabilities will grow, and the larger liabilities will have longer durations. Consequently, pension funds will be challenged by more interest rate and duration risk. Leaving longevity risk out of the analysis will underestimate total risk, especially in regard to inflation-linked and deferred liabilities because their longer durations make them significantly more sensitive to adverse outcomes.

Pension decisions made without longevity risk in the equation will consistently undervalue the benefits of risk management or risk transfer. To date, only insurance solutions have been used to address longevity risk in large pension funds. There are several insurance solutions from which to choose.

SELECTING THE RIGHT SOLUTION

Many plan sponsors have chosen de-risking solutions tailored to meet their specific needs. Exhibit 5 on page 30 shows the solutions currently available; some of the firms that have implemented them; and transaction activity in the United States, United Kingdom and Canada since 2007.

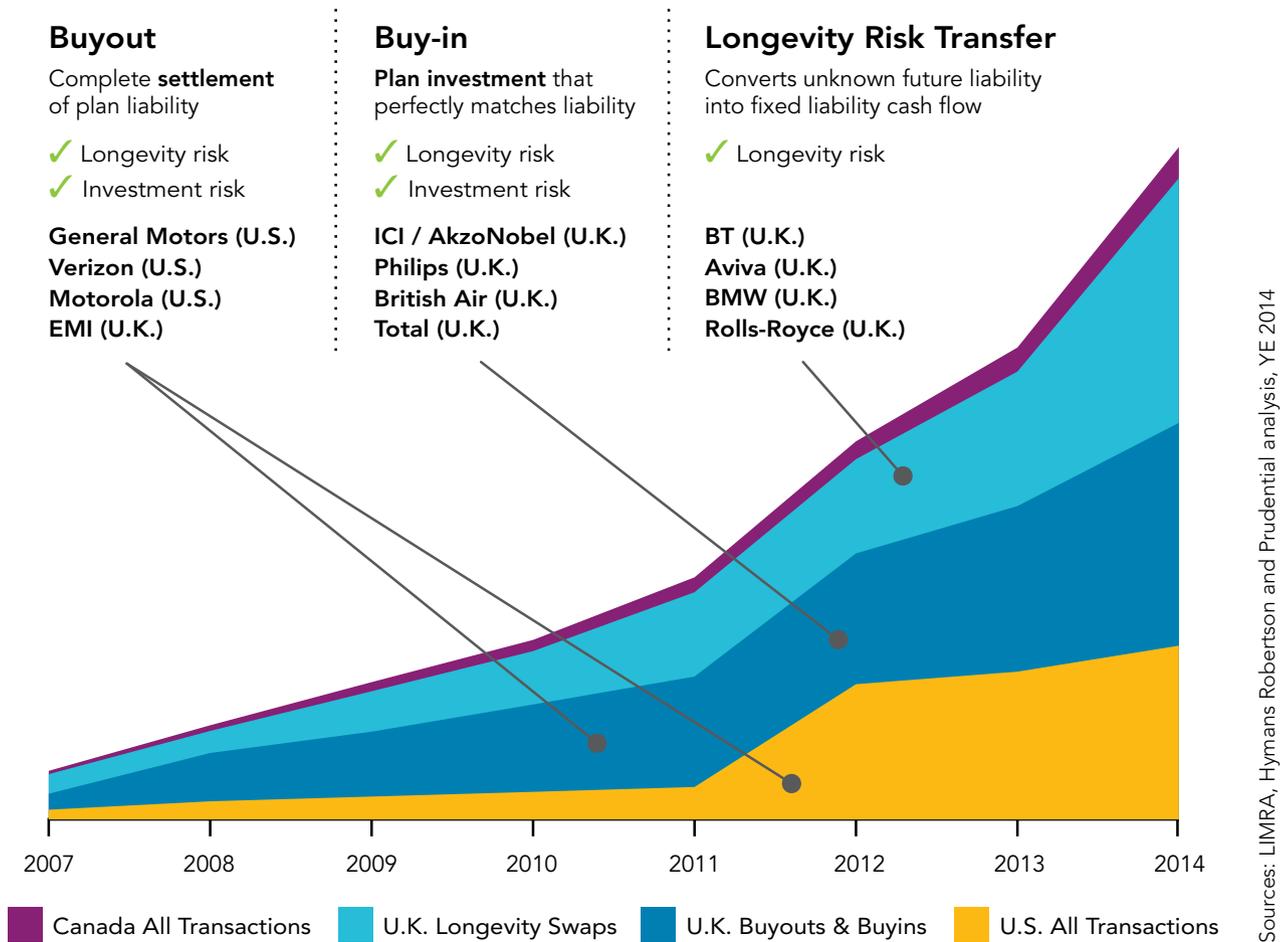
In a buyout, the plan pays a premium to the insurer to settle the liability, and the insurer then covers all investment and longevity risk for the annuitants.

A buyout allows plan sponsors to:

- Transfer risk, including investment, longevity and benefit-option risk, to an insurer who guarantees the payments to participants for life;
- Eliminate administrative, actuarial and investment management expenses, including guaranty corporation premiums; and
- Remove pension liabilities from their balance sheets.

This solution is ideal for plan sponsors seeking to reduce the size of their pension

EXHIBIT 5: PENSION RISK TRANSFER SOLUTIONS



liability, and can be particularly helpful in a corporate restructuring. Buyouts are common in the United States, United Kingdom and Canada.

A pension buy-in enables the sponsor to purchase a bulk annuity and hold it as a liability matching asset of the plan. This solution enables pension plans to transfer risk today without the plan liability settlement charges, and offers several additional advantages for underfunded plan sponsors, including:

- Maintaining funded status;
- Holding contributions steady; and
- Minimizing accounting and funding volatility.

A buy-in provides the plan with the exact amount of income needed to make benefit payments for as long as participants live. But because the liability is not settled, this option is rarely used in the United States. It is more commonly employed in the United Kingdom for pension funds beginning the plan termination process or taking steps in a phased de-risking program.

The fastest-growing solution in the United Kingdom is longevity risk transfer. The products available today convert an unknown future liability into a fixed liability cash flow by locking in the life expectancy of the

plan participants. With a fixed and known future obligation, large pension funds find it easier to manage an asset portfolio against the liability. In fact, for many plan sponsors, longevity risk transfer is the last step in a “do-it-yourself” pension de-risking program. Once funded status and asset risk concerns are addressed, longevity risk transfer is the capstone to a pension “hibernation” strategy, whereby the sponsor continues managing the plan on balance sheet with risks and expenses managed within a tight tolerance.

As illustrated in Exhibit 6, longevity risk transfer solutions are most appropriate for large pension plan sponsors who:

It's time for defined-benefit plan sponsors to re-think pension risk—and to consider risk transfer solutions.



- Have high allocations to fixed income;
- Possess healthy funded status;
- Seek to retain some risk; and
- Prefer to pay for de-risking over time.

A pension fund that doesn't meet any of those criteria may prefer a buy-in or buyout solution.

RE-THINKING PENSION RISK

If recent transaction activity is any indicator, it's time for defined-benefit plan sponsors to re-think pension risk—and to consider risk transfer solutions. A pension risk transfer transaction helps plan sponsors:

- Solidify market leadership;
- Create more consistent financial results;
- Eliminate a potential cash call on the company; and
- Maximize strategic flexibility.

Companies that manage pension risk set themselves apart from their peers. Three years ago, when large pension risk transfer agreements began coming to market, the question on most plan sponsors' minds was whether or not to reduce their pension risk. Today, with the opportunity to customize the approach, the question becomes: What de-risking path will they take? **A**

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EXHIBIT 6: HOW PLAN SPONSORS CHOOSE A SOLUTION



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