Time to Risk Transfer
De-Risking Corporate Pension Plans
Acknowledgments

We thank Peter Orszag, Charles Millard, Swapnil Katkar, Peter Babej, Brian Bedner, Flavio Figueiredo, Talia Schaap, and Nikolai Semtchouk for their insights and comments; and Celia Gong for her editorial support. Anil Shivdasani is a Professor of Finance at the University of North Carolina at Chapel Hill.

About the Financial Strategy and Solutions Group

The Financial Strategy and Solutions Group (FSG) is the corporate finance advisory team in Citi’s Corporate and Investment Banking division. We advise corporate and financial institution clients globally on the full spectrum of corporate finance issues including valuation, capital structure, credit ratings, risk management, liability management, shareholder distributions, and acquisition and funding strategies. In partnership with Citi’s product and industry experts, we design innovative solutions to assist our clients.
Table of Contents

Introduction .......................................................................................................................... 4
The Corporate Pension Environment .................................................................................... 5
  Improving Pension Funded Status ....................................................................................... 5
  Move towards Risk Reduction .............................................................................................. 6
  Asset Reallocation Alone Does Not Eliminate Risk ............................................................ 7
The Move towards Risk Transfer Strategies ........................................................................ 9
  Risk Transfer Alternatives .................................................................................................... 9
  Pricing of Risk Transfer Transactions ................................................................................ 12
Corporate Finance Benefits of Pension Risk Transfers ..................................................... 14
  Impact on Cost of Capital .................................................................................................... 14
  Impact on Valuation ............................................................................................................. 15
  Impact on Balance Sheet and Cash Flows .......................................................................... 15
Critical Execution Steps ......................................................................................................... 17
Introduction

The current environment represents an opportune time for companies to consider addressing risks associated with their defined benefit pension plans. Since 2006-2007, when many corporate pension plans were overfunded, we have witnessed an unprecedented level of volatility in pension exposures. There is mounting evidence illustrating that lowering pension exposures can enhance a corporation’s financial flexibility and shareholder valuation. Moreover, with the attractiveness of credit market conditions and the continued uncertainty about if and when interest rates may rise, the corporate finance case to transfer pension risks has become even more compelling.

The pension debate today has largely shifted from one of “whether or not” to de-risk to one of “when.” The trend towards risk transfer is gaining momentum as a tool to address comprehensively pension-related risks. While the prospect of a rising rate environment has encouraged some decision makers to consider waiting in the hopes that higher rates will close the funding gap, the interest rate outlook continues to be uncertain with a distinct possibility that we remain in a low rate environment for an extended period of time. Additionally, the increased cost of Pension Benefit Guaranty Corporation (PBGC) premiums and the introduction of new mortality tables could escalate costs and outweigh the potential benefits of waiting. As a result, it is imperative for all corporate executives to review various pension de-risking strategies. Pension risk transfers are some of the most complex transactions with long lead times. Therefore, beginning the process of evaluation now and enforcing an M&A style discipline may ensure the best outcome for all constituents.

The growing importance of the pension de-risking theme is being fueled by the desire on the part of insurance companies to continue to search for growth, diversification, and effective deployment of capital. Over the last several years, the insurance sector globally has been challenged across a number of macroeconomic, market, and regulatory fronts – a low interest rate environment, increased capital requirements, and additional regulatory challenges for those designated as a systemically important financial institution (SIFI). It is within this context that many insurance companies have been investing in the pension risk transfer market as an organic growth opportunity.

This report highlights key trends and examines strategies for transferring the risks associated with pension plans. The various corporate finance implications of pension plan risk transfers, including their effects on capital structure, cost of capital, and financial flexibility are also discussed. Our analysis of precedent risk transfer situations illustrates the potential value enhancement that companies stand to realize by appropriately designed approaches to addressing pension risks in the current environment.
The Corporate Pension Environment

Improving Pension Funded Status

The funded status of defined benefit pension plans has improved sharply in 2013 as a result of strong equity market performance and a rise in long-term interest rates. As of the end of 2013, plans of S&P 500 sponsors in the US had an aggregate funded status of 88% and in Europe, STOXX 600 sponsors were funded at 84%.

Figure 1. Pension Funded Status Has Improved Post-Crisis

Source: FactSet.
Note: Analysis based on companies in the S&P 500 and STOXX 600. Funded status based on aggregate pension assets and liabilities.

While still far below 2006-2007 levels, plans at an increasing number of companies are now close to being fully funded - the percentage of plans that are at least 90% funded stands at 39% for the S&P 500 as of 2013, compared with 24% in 2010. The pension environment today is similar to the situation in 2006-2007 when many plans experienced a sharp recovery from the crisis of 2002-2003, with average funded status reaching 104%. However, most companies missed the opportunity to de-risk their pension plans during 2006-2007 and faced billions of dollars in contributions as the average funded status for the S&P 500 dropped to 78% in 2008. US corporates in the S&P 500 index spent close to $400 billion in pension contributions over 2008-2013, some of which could have been avoided with appropriate de-risking strategies.

As a result of this experience, most executives are now keenly aware of the corporate finance challenges posed by their pension plans. In a recent survey, 43% of finance executives expressed concern that plan obligations may constrain their company’s cash flows and 36% felt that these obligations restricted their ability to invest in growth opportunities. Mirroring these sentiments, our analysis of US sponsors shows that those with large plan liabilities tend to invest less in capital expenditures for generating future

growth and also implement lower levels of share buybacks during periods of higher contributions, highlighting the constraints that a pension exposure can place on a company’s operating and financial policies.

Figure 2. Funded Status of Corporate Pension Plans Is on the Rise Again

Source: FactSet.
Note: Analysis based on companies in the S&P 500.

Move towards Risk Reduction

Many companies have become more proactive in addressing pension plan risks and have already taken steps to immunize their portfolios to interest rate movements by increasing their allocation to fixed income investments. Since 2007, the allocation to fixed income among S&P 500 plans has risen from 31% to 39%, while their exposure to equities has dropped from 61% to 47%. However, despite the declining equity allocations, most plans still retain significant equity exposures, partly driven by the very strong equity market performance over the past year. For example, for 8% of S&P 500 firms, the value of the plan’s equity portfolio exceeds 20% of the equity market capitalization of the entire company. This implies that a downturn in equity market performance would have a meaningful impact on the overall company’s valuation even aside from the funding implications that would arise from their equity exposures.

Despite most firms’ intent to increase their fixed income allocations to mitigate downside risk, the percentage of plan assets invested in fixed income has not changed materially over the past three years. It is also worth noting that the expected returns for plans are usually much higher than the yields on long-dated debt instruments in the current rate environment. Thus, over time, plans with high allocations to fixed income are likely to face higher service costs.
Asset Reallocation Alone Does Not Eliminate Risk

It is well understood that lowering pension deficits and managing portfolio allocations help lower the risk from pension plan assets. However, these strategies do not eliminate pension risk since they do not directly address pension liabilities. In fact, risks imposed by pension plans can be directly linked to the size of liabilities. Since the value of pension liabilities changes with interest rates and mortality trends, firms with larger pension plans are subject to greater risk than firms with lower amounts of pension liabilities. As a result, it is common for many institutional investors to consider the overall magnitude of pension liabilities as an important factor in deriving their investment thesis for a firm.

To illustrate the importance of the size of pension plan liabilities as a risk factor, consider the share performance of S&P 500 plan sponsors since 2002. Sponsors with severely underfunded plans (i.e. funded status below 80%) have underperformed firms with better funded plans by 78% through the end of 2013. Similarly, firms with higher equity exposures have underperformed firms with lower equity exposures by 62%. However, the size of the plan liabilities leads to the greatest dispersion in share price performance - firms with above median plan liabilities have underperformed firms with smaller plans by almost 120% since 2002. While share price performance is obviously influenced by many factors, these patterns illustrate the potential risks imposed by large pension plans, irrespective of their funded status or portfolio allocation.
As mentioned earlier, large plan liabilities also impose more risk on corporate plan sponsors due to the greater aggregate exposure to longevity risk, i.e. the risk that plan participants outlive the assumed life expectancy. As life expectancy has increased globally, longevity risk in defined benefit plans has increased and it is estimated that over $3 trillion of this risk sits with corporate defined benefit pension plans in the US. Further, for most corporate plan sponsors, managing this risk is not a core competency nor does a natural offset to this risk exist. Estimates suggest that the magnitude of this risk is substantial. For example, if a male 70 years of age who is expected to live to 86 actually lives to 87, the present value of his pension plan liability is likely to increase by approximately 4%.

When extrapolated onto a $3 trillion aggregate US corporate market, this longer life has the potential to create an additional $120 billion of PV liability exposure. Liability-driven investing (LDI) strategies do not address this longevity risk; this creates the need for companies to consider risk transfer strategies.

Finally, with LDI strategies, sponsors remain exposed to other forms of risk. These risks include the default risk in pension bond portfolios, rising pension expenses and PBGC premiums, and investment basis risk due to imperfect matching of duration and convexity of pension assets and liabilities.

---

The Move towards Risk Transfer Strategies

As a result of these trends, companies have begun the process of addressing a key aspect of pension plan risk management - lowering the risk of plan liabilities by transferring the risk associated with the plan. There are now several widely used tools to accomplish such risk transfers.

The pension risk transfer market is active in the UK, Netherlands, US, and Canada. It is most prominent and longstanding in the UK where its growth accelerated from less than £1 billion in 2006 to over £20 billion in 2013. In the US, the risk transfer market averaged about $1.5 billion between 2006 and 2011 but rose sharply to $35 billion following the $26 billion and $7.5 billion transactions by General Motors and Verizon in 2012. In the US, corporations may effect risk transfers through lump sums, buy-outs or buy-ins. In the UK and Canadian markets, additional solutions such as longevity swaps exist where expected longevity is swapped for the actual years lived by plan participants.

Risk Transfer Alternatives

Corporate plan sponsors have a range of pension risk transfer alternatives to consider when contemplating full risk mitigation. Each solution may meet a unique set of objectives and vary with respect to cash and funding requirements, P&L impact, and the impact on plan participants.

Lump Sums: Lump sum payments are offered by a corporate plan sponsor to its pension plan participants in the form of a single payment that is calculated on a PV basis which serves to then extinguish the liability. In this strategy, the pension liability including longevity risk is eliminated and typically assets held against these liabilities are liquidated to fund the cash payment. Not all participants will take the lump sum program and therefore, the corporation may only be able to eliminate a portion of the exposure based on the participation rate ultimately achieved.

Buy-outs: Buy-out transactions effect a full transfer via legal separation of pension plan liabilities along with the asset investment risk to a regulated insurer. In this strategy, the pension exposure including liability longevity risk as well as asset risk is removed from the balance sheet and the ongoing relationship with plan participants is transferred to the insurer. Settlement accounting is realized upon transfer.

Buy-ins: Buy-in strategies entail the pension plan entering into an insurance policy which covers the benefits for a defined group of pension plan participants. The policy is typically structured as an asset of the plan and serves to immunize the liabilities including longevity risk, but the plan participant relationship remains with the corporate plan sponsor. Settlement accounting is not triggered with this solution, and the liabilities remain on the corporate balance sheet.
**Longevity Swaps:** Longevity swaps are effected through a swap contract that offsets the longevity risk of the pension plan— that is, the risk of a pension plan participant living longer than expected. In a longevity swap, the pension plan pays a fixed payment based on a defined longevity assumption that is set upfront and receives a payment based on the actual mortality. While the pension plan still owns the asset performance, the asset risk is materially reduced due to the mitigation of the plan’s longevity risk. However, the pension plan retains some degree of counterparty risk over the life of the contract.

**Figure 5. Summary of Pension Risk Transfer Strategies**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Summary</th>
<th>Risk Transfer Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lump Sum</td>
<td>Offering option to plan participants a one-time payment for the total or partial value of pension obligations</td>
<td>Fully Transferred</td>
</tr>
<tr>
<td>Buy-out</td>
<td>Purchasing a group annuity contract and transferring to an insurance company all obligation of the covered participants</td>
<td>Fully Transferred</td>
</tr>
<tr>
<td>Buy-in</td>
<td>Purchasing a group annuity contract with an insurance company as an investment to match part of a pension plan's liabilities</td>
<td>Partially Transferred</td>
</tr>
<tr>
<td>Longevity Swap</td>
<td>Transferring the risk of members living longer than expected to a third party while retaining direct control of the assets</td>
<td>Partially Transferred</td>
</tr>
</tbody>
</table>

Figure 6 summarizes two prominent large pension risk transfers by GM and Verizon in 2012 that spurred substantial interest in risk transfer strategies in the US. GM’s transaction involved a combination of lump sum payments and risk transfer through annuities to Prudential. Following the transaction, GM’s pension liability for 118,000 retirees ($26 billion projected benefit obligations) was transferred; this risk transfer reduced the size of GM’s pension plan by about 20%, at a net cost of around $3 billion. The Verizon transaction involved a $7.5 billion transfer of pension obligations in exchange for a group annuity from Prudential, covering 41,000 retirees of the plan. With the transaction, Verizon also agreed to contribute $2.5 billion to the plan in order to decrease the funding gap. As a result of risk transfer, Verizon’s pension plan liabilities decreased by 25%. Following these transactions, many more firms have implemented large transfer solutions, including EMI Group, NCR, and Intercontinental Group in the UK, and SPX and Visteon in the US.

The increased interest by life insurance and reinsurance companies has been an important element of risk transfer. For these companies, longevity and mortality risks are core competencies, and longevity risk can offer a potential diversification benefit to existing mortality risk. This risk exposure, along with the more natural alignment of competencies of insurance companies, has encouraged a heightened interest and greater activity in the pension risk transfer market.
Figure 6. Summary of GM and Verizon Risk Transfer Transactions

<table>
<thead>
<tr>
<th>Key Transaction Facts</th>
<th>GM</th>
<th>Verizon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction Date</td>
<td>Jun 2012</td>
<td>Oct 2012</td>
</tr>
<tr>
<td>Deal Size ($mm)</td>
<td>$26,000</td>
<td>$7,500</td>
</tr>
<tr>
<td>Retirees Affected</td>
<td>118,000</td>
<td>41,000</td>
</tr>
<tr>
<td>Insurance Provider</td>
<td>Prudential</td>
<td>Prudential</td>
</tr>
</tbody>
</table>

Source: FactSet and company filings.
Note: Equity beta based on 5-year weekly equity return against MSCI Global.

Figure 7. Corporate Pension Risk Transfer Transactions by Industry

Source: FactSet and Citi FSG.
Note: UK analysis based on 70 pension risk transfer transactions from 2008 to present, with £61.9bn transaction value in aggregate, including 16 longevity swaps, 37 buy-ins, and 17 buy-outs. US analysis based on 18 pension de-risking actions from 2012 to present, including 15 lump sums and 3 buy-outs with $41.5bn transaction value in aggregate.
Pricing of Risk Transfer Transactions

Risk transfers are typically used in the context of a holistic approach to a plan’s risk management - firms employing transfer solutions tend to be those that have also proactively managed their investment risks as observed by the lower than average equity allocations of these plans. Firms engaging in risk transfers also typically have plans at or close to funded status, which makes it easier to facilitate the risk transfer. For example, the median funded status of plans that employed one or more risk transfer solutions was 90% in 2014. In these transactions, insurers typically form their own estimates of the value of the plan liabilities using their mortality and discount rate assumptions. The plan sponsor then transfers cash or securities equal to the insurer’s estimated cost of owning the pension liabilities, and managing the assets. While the price will vary based upon pension plan specifics, pension risk transactions have approximated 110% of a corporate plan sponsor’s reported book value of the pension liabilities. However, not all risk transfer strategies require a plan to have high funding levels. Pension buy-ins and longevity insurance can be effective strategies even when plans are not fully funded.

One of the challenges to risk transfer strategies voiced by many executives is that these transactions require a premium over the book value of the liabilities and that corporates need to pay this premium upfront to transfer their pension liabilities. However, the true economic cost of a pension risk transfer is often lower than what this premium suggests, as the premium includes many expenses that the plan sponsor would normally need to incur over time if the liabilities are retained.

In Figure 9, we show Prudential’s estimate highlighting that economic value of pension liabilities could reach about 111% of book value after taking into account longevity risks, PBGC premiums, and other expenses. In fact, the new mortality tables recently introduced by the Society of Actuaries are expected to be fully adopted by corporates by 2016 and will increase the reported book value of pension liabilities. In addition, the cost

---

3 See Mercer US Pension Buyout Index.
of PBGC premiums is expected to rise over the next few years. Therefore, when transfer costs are added to the actual economic value of the pension liabilities, the effective price of a risk transfer alternative is much closer to its par economic value illustrated in Figure 9.

**Figure 9. The Disaggregated Costs of Pension Risk Transfer**

<table>
<thead>
<tr>
<th>GAAP Retiree Liability</th>
<th>Administrative Expenses</th>
<th>PBGC Flat-Rate Premiums</th>
<th>Investment Management Fees</th>
<th>Credit Defaults and Downgrades</th>
<th>Adjustments due to Change in Mortality Tables</th>
<th>Economic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>0.4%</td>
<td>0.6%</td>
<td>2.2%</td>
<td>1.8%</td>
<td>6.0%</td>
<td>111%</td>
</tr>
</tbody>
</table>

Source: Prudential’s fall 2013 estimates.

It should be noted that a lump sum risk transfer strategy which is generally determined based on the stated PBO value from the end of the prior year (book value of pension liabilities of 100%) may appear more attractive when compared to the economic value of liabilities estimated at 111%. In Figure 9, changes in mortality assumptions will have a material impact on the lump sum payments which are currently valued based on existing mortality tables.
Corporate Finance Benefits of Pension Risk Transfers

Impact on Cost of Capital

Companies that transfer their pension plan liabilities to a third party reduce their exposure to market risk factors embedded in pension assets and liabilities. Through this reduction in risk, pension transfers offer the potential to lower the company’s equity beta and its cost of capital, offering a path to enhanced valuation.

To illustrate the impact of a risk transfer strategy on the cost of capital, we employed the Jin, Merton and Bodie approach to calculating the cost of capital for companies with large pension plans. While the impact of pension assets on the cost of capital is negligible for most companies, there can be a meaningful impact for companies with large pension plans.

In Figure 10, we show how the transfer of pension assets and liabilities for the typical S&P 500 industrial firm with a nearly fully funded plan would affect its cost of capital. Our estimates suggest that a complete risk transfer of the pension plan for this illustrative firm would reduce its equity beta by about 11% and lower the cost of capital by about 60 basis points, or 7%.

Using a broader sample of S&P 500 firms, we also observe that companies with smaller pension plans tend to have lower equity betas. Figure 10 shows betas for companies within the same industry in the S&P 500 for the top and bottom quartile of pension plan size. Since 2005, companies with large pension plans relative to market cap have consistently had higher betas (except in 2007) with a median beta of 1.1, compared to companies with smaller plans where the median beta was 0.98, a difference of 12%.

Figure 10. Pension Risk Transfer Reduces Beta and Cost of Capital

Source: FactSet.
Note: Analysis based on median financial metrics for S&P 500 industrial companies with a DB plan which have equity beta of 1.1, debt / equity of 31%, pension deficit / market cap of 5%. Historical beta based on annual sorting of companies in the S&P 500 based on top quartile / bottom quartile of industry adjusted pension liability.

**Impact on Valuation**

The benefits of pension de-risking strategies are also recognized by equity investors who tend to respond favorably to companies’ announcements of risk transfer initiatives. To illustrate how markets respond, we analyzed various de-risking strategies announced between 2008 and 2014 by US and UK companies. The analysis shows that cumulative average market excess return across all type of risk transfers was 2.6% over the 30-day window after the announcement. The response to pension buy-in and buy-out announcements is generally, more or less neutral initially, and positive over a longer horizon.

**Figure 11. Pension Risk Transfer Actions Are Well Received by Investors**

![Cumulative Return Chart](chart)

<table>
<thead>
<tr>
<th>Excess Return Relative to Local Index (%)</th>
<th>Days Relative to Announcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>[0, +20] Days</td>
<td>[0, +250] Days</td>
</tr>
<tr>
<td>All</td>
<td>2.6%</td>
</tr>
<tr>
<td>Buy-in &amp; Buy-out</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Source: FactSet.  
Note: Analysis based on 17 US and 46 UK pension risk transfer transactions from January 2008 to March 2014.

**Impact on Balance Sheet and Cash Flows**

By transferring pension risks, companies face lower volatility in their cash flows stemming from the risk of unexpected changes in pension deficits. Figure 12 illustrates how transferring 50% of the pension liability for the median S&P 500 industrial company has the potential to strengthen the balance sheet and improve financial flexibility. Since pension deficits tend to rise in adverse economic scenarios, increases in underfunding typically coincide with reductions in EBITDA. Our analysis assumes that in downside scenarios, EBITDA declines by 25%, as was the case for the industrial sector during the past recession. Under these assumptions, a 2σ shock to pension underfunding implies that pension adjusted debt to EBITDA for a median S&P 500 industrial company plan sponsor would rise by 1.1x to 3.5x. For most companies, such an increase in leverage would make a credit rating downgrade a likely scenario. After transferring half of the
pension liabilities, the downside risk to leverage appears more manageable with debt to EBITDA rising to 3.1x in the 2σ scenario. The effects on cash flows in the downside scenario are also substantially lower when pension risks are transferred due to the reduction in the required contributions.

Figure 12. Pension Risk Transfer Mitigates Downside Risk: Illustrative Case of an Industrial Company

Source: FactSet. Note: Analysis based on median financial metrics for S&P 500 industrial companies with a DB plan. Assumes a 25% EBITDA decrease in a 2σ economic downturn.

A proactive approach to pension plan de-risking can also help facilitate M&A situations. In sell-side situations, managing pension risk can enhance shareholder value by eliminating the uncertainty for a potential acquirer with respect to unexpected increases in the pension deficit of the acquired entity. Moreover, potential acquirers may take a more punitive approach in valuing a company’s existing pension exposure relative to what could be achieved via a buy-out or buy-in risk transfer strategy. A recent study shows that in the UK, firms with large pension deficits were less attractive takeover targets and that acquisition offers for these firms faced a higher degree of non-completion risk. The study also notes that pension plans can complicate buy-side M&A with targets being less willing to accept the equity of an acquirer with a large pension plan due to uncertainty about how the plan may affect the future equity valuation.

Critical Execution Steps

Pension risk transfers have been characterized as one of the most complex executions that a corporate plan sponsor can undertake. Proper execution requires careful advanced planning across multiple dimensions. The following are some of the most important areas of focus for a corporation to consider when contemplating a pension risk transfer.

Analyzing corporate finance implications: Understanding the overall corporate finance implications of a risk transfer is often the first step in determining its prioritization within the context of a corporation’s financial goals. Analyzing the implications to a corporation’s income statement, balance sheet, and shareholder valuation may inform a company of the relative financial importance of mitigating the pension exposure. Stress testing the results to assess downside scenarios may further underscore the strategic merits of pursuing such pension de-risking actions. These analyses serve to help identify not only the optimal capital structure of a corporation, but also the selection of the best risk transfer alternative.

Identifying constituency perspectives and messaging: There are many constituencies that will have a point of view on a pension risk transfer transaction. Understanding the perspectives of key constituencies including a corporation’s shareholders, rating agencies, employees, and regulators is critical in developing the optimal solution. Defining the message for these parties should be a critical part of execution in any risk transfer transaction.

Managing liability data: Cleansing and preparing liability data in concert with an experienced pension consultant is a crucial step to enable insurers to make a “bid” for the pension assets and liabilities. Without clean data, risk transfer transactions cannot be completed. Additionally, careful attention needs to be paid to identifying the pool of employees for risk transfer.

Understanding the “buyer” base: Insurance companies remain the most natural buyer base of pension assets and liabilities to the extent corporations are looking beyond lump sum initiatives. The insurance industry, however, continues to evolve in the area of pension risk transfers with some companies considering it a significant growth opportunity and others only interested in certain components of pension risk. For example, some insurance companies are primarily focused on retaining the longevity risk while others are more focused on the asset risk. Adopting an M&A style discipline to screening potential candidates and identifying each one’s core competencies helps to achieve potential cost efficiencies and optimal pricing. In addition, the ability of insurers to take on particular types of pension risk may vary with the company’s regulatory domicile. A process to explore pension transfer solutions should be designed accordingly to achieve an optimal result.
Optimizing asset allocation and pricing: Many large scale pension risk transfer transactions today are effected through in-kind transactions. In such transactions, assets are transferred to the insurance company in concert with the liabilities. As such, transition management services may often play a critical role in ensuring that the assets are optimally allocated so as to maximize the insurance company’s pricing of the asset portfolio. For example, certain asset classes may require more or less regulatory capital with an insurance company and therefore may influence the price offered for the assets. Additionally, obtaining the best pricing for the assets may be facilitated when a market maker, such as a bank, is involved.

Hedging market risk during transaction: The moment a plan sponsor decides to engage in a risk transfer, whether lump sum or a buy-out, it faces risks with respect to asset performance, the value of the liabilities and the market. For example, a mismatch may arise between the pricing date when liability values are determined and the settlement date when assets are liquidated. During this time, asset prices and interest rates may fluctuate based on market movements. Additionally, once a decision to de-risk has been taken, the sponsor may want to consider hedging the impact that interest rate fluctuations may have on the present value of the pension liability being transferred. Some mitigation of these risks through the use of derivative strategies may be warranted.

Financing the transaction: Some pension plans may be underfunded or may require incremental funding to meet the risk transfer pricing requirements. A range of financing alternatives may be contemplated including unsecured debt, convertible bonds, equity or bank financing. The optimal financing strategy may be assessed with capital markets providers in the context of the company’s overall capital structure and shareholder valuation goals.

In conclusion, many angles need to be examined when considering a pension risk transfer solution. Holistic analysis and a disciplined approach to execution will optimize the outcome for all constituents. Clear evidence points to an increase in a corporation’s financial flexibility and shareholder valuation that may result from this type of pension de-risking. While the precise strategy and timing of execution will vary based upon a company’s specific fact pattern, the current environment behooves key financial decision makers to commence the process of evaluation now.
IMPORTANT DISCLOSURES

Citigroup Global Markets Inc. ("Citi") is a registered broker-dealer in the United States. It is a member of Citigroup Inc. and is affiliated with Citibank, N.A., and its subsidiaries and branches worldwide (collectively "Citibank"). Despite those affiliations, securities recommended, offered, sold by, or held at, Citi: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested.

This material has been prepared by members of Citi’s Investment Banking Department and may include excerpts of other materials which have been previously been made available to other third parties. Although this publication may make reference to research reports that have been prepared and distributed by Citi and/or its affiliates, this publication has not been prepared by research personnel and the information provided herein is not intended to constitute “research” as that term is defined by applicable regulatory authorities. The information contained in this publication is based on generally available information and, although obtained from sources believed to be reliable, its accuracy and completeness is not guaranteed. This material has been provided for informational purposes only, without regard to any particular user’s investment objectives, financial situation, or means. It does not constitute advice on investments or an offer or solicitation to purchase or sell any financial instruments. Certain transactions and trading strategies, including those involving futures, options, and high-yield securities, give rise to substantial risk and are not suitable for all investors. No liability whatsoever is accepted for any loss (whether direct, indirect or consequential) that may arise from any use of the information contained in or derived from this publication. Past performance is not an indication of future returns.

This publication is proprietary to Citi and any copying or distribution to a third party without the prior written consent of editorial board and without the inclusion of the appropriate disclaimers as approved by Citi’s internal legal counsel is strictly prohibited. Citi does not provide tax or legal advice. Any discussion of tax matters in this publication (i) is not intended to be used, and cannot be used or relied upon, by you for the purpose of avoiding any tax penalties and (ii) may have been written in connection with the “promotion or marketing” of the matters discussed herein. Accordingly, you should seek advice based on your particular circumstances from an independent tax advisor.

Citi may have a role in connection with some of the transactions mentioned in this report.

© 2014 Citigroup Global Markets Inc. All rights reserved. Citi and Citi and Arc Design are trademarks and service marks of Citigroup Inc. or its affiliates and are used and registered throughout the world.