NORTHERN TRUST
ASSET MANAGEMENT

CORPORATE PENSIONS: THE BOTTOM LINE

DAN KUTLIROFF
Head of Solutions Strategy
Retirement Practice
Northern Trust Asset Management
dk205@ntrs.com

SARVESH SOI, FCA, EA, CFA
Pension Risk Strategist
Retirement Practice
Northern Trust Asset Management
ss720@ntrs.com

Northern Trust Asset Management
northerntrust.com

EXECUTIVE SUMMARY

During 2017, corporate pensions experienced their greatest improvements in funded status in the last five years. We saw funded status improve from 81% to 85% - the largest one-year increase since 2012 to 2013.

The markets were a significant contributor of that growth – with global equity markets returning 24% in 2017. This helped to offset increases in plan liabilities resulting from the continuing drop in long-term interest rates.

But a significant cause of the improvement in funded status came from corporate cash contributions. During 2017, corporations contributed $77 billion in cash into their pension plans. **That represents 6.5% of all the cash these same corporations generated from their operating activities – a significant increase over each of the prior three years.** That is a material capital allocation to what is essentially a debt obligation for many plan sponsors, and a tie-up of capital that cannot be used for corporate growth, or distributed to shareholders.

A key benefit of these large contributions is the positive effect on the income statement – **the pension expense recorded on corporate income statements has fallen to its lowest levels since the financial crisis** – both on an absolute dollar amount and relative to corporate earnings. In 2017, the average pension expense was just 3.4% of total operating income – a significant drop from 5.2% in the prior year.

So corporations are allocating more capital to their pensions than ever before. As a result, they are better able to manage their pension costs and improve the funded health of their plans. This is leading corporations to look hard at their investment strategy and ensure they are getting the best "bang for their buck" with the capital they are allocating and trying to preserve that improved funded health, while also seeking ways to continue to reduce the outstanding deficit across the plans.

We believe it is critical to understand the impact the pension plan has on the overall corporate financials – from a materiality, cost, and capital standpoint. This paper will analyze that, as well as tie it in to pension investment strategy as a result of the corporate finance impact. We make several recommendations on investment areas to consider as a result. This paper will also analyze how different sectors are being impacted by

the state of their pensions and how they are choosing to manage those plans.

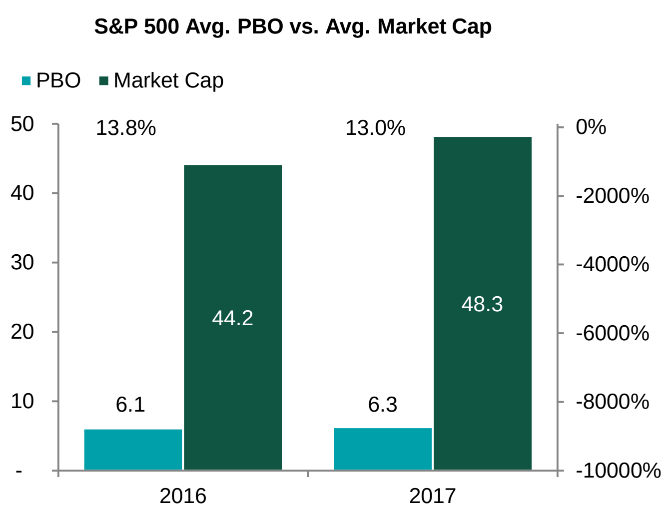
This paper analyzes the global pension data for all companies in the S&P 500 with any global pension obligation as of 4/9/2018. This consists of 346 companies. All the data compiled in this report is based on publicly available data drawn from FactSet.

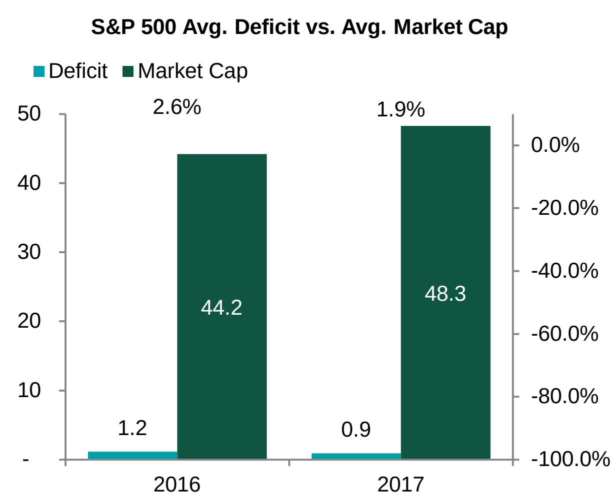
PART I – MARKET UPDATE

PLAN MATERIALITY

We start with an exploration of the materiality of the overall pension plan. Corporations develop their pension risk appetite in large part due to the size of the pension relative to the overall size of the corporation. In general, the larger the pension plan becomes relative to the size of the corporation, the more risk-aware the corporation is with respect to managing the pension investments. Corporations do not want to be forced into bankruptcy as a result of depleted pension funds, nor do they want the volatility of pension expense to drive their overall financials.
A common measure of materiality is the size of the pension obligation relative to the market capitalization of the corporation. At the end of 2016, the materiality of pension plans using this metric was 13.8%. At the end of 2017, this metric fell to 13.0% - demonstrating that pensions are becoming a less material component of the corporate balance sheet. But key to this is that the pension obligation itself isn't falling – it is actually higher! – due primarily to another year of falling interest rates. The average pension obligation for these companies at the end of 2017 was $6.3 billion, up from $6.1 billion at the end of 2017. But the improvement in the market cap of these companies was greater than the growth in their pension obligations – a 9% growth rate

EXHIBIT 1: S&5 500 AVERAGE PBO AND AVERAGE DEFICIT VS. AVERAGE MARKET CAP





SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

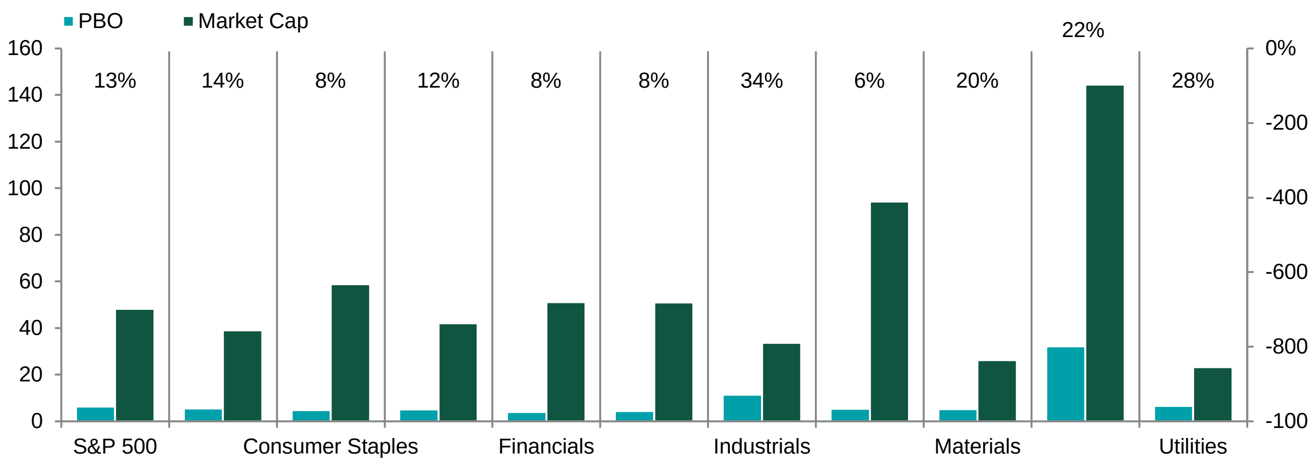
Another way some corporations choose to view their pension materiality is to focus on the outstanding deficit (difference between total pension obligations and plan assets) relative to market cap. This gives a better sense of the immediate shortfall that the corporation will have to come up with to meet their obligations. This metric fell considerably from 2016 to 2017 – from 2.7% to 1.9% - the improvements in funded status making a big dent here, along with the improvements in the markets.

However, we urge caution in relying too heavily on this metric – while the outstanding deficit is important for a corporation to understand, focusing solely on this metric removes the total exposure from the equation. A large drop in markets and/or fall in interest rates could have a dramatic effect on the deficit. As a result, while it is valuable to know how the pension deficit relates to the corporation size, we believe it is more prudent to focus on the total obligation of the plan, even if it is mostly funded at this point.

PENSION MATERIALITY BY SECTOR

There are certain sectors where pensions represent a larger proportion of the corporation than others – for example, within the Industrial sector, pension obligations represent 34% of the market cap. The Materials and Utility sectors also have pension obligations equal to at least 20% of their market caps. Within the Industrial and Materials sector, this is likely driven by the legacy of these companies when open pension plans were more common-place, as well as the strong union populations which have maintained pensions longer than non-union employees. The Utility sector maintains a larger proportion of open pension plans than other sectors because of their ability to include pension costs in the rate-setting process. (The Telecommunications industry comes in at 22%, but this is primarily driven by the large sizes of the three companies that make up that sector – Verizon, AT&T, and CenturyLink.) As we will see in this paper, this magnitude has an effect on how corporations within these sectors are managing their pension investment strategy.

EXHIBIT 2: 2017 AVERAGE PBO VS. AVERAGE MARKET CAP BY SECTOR

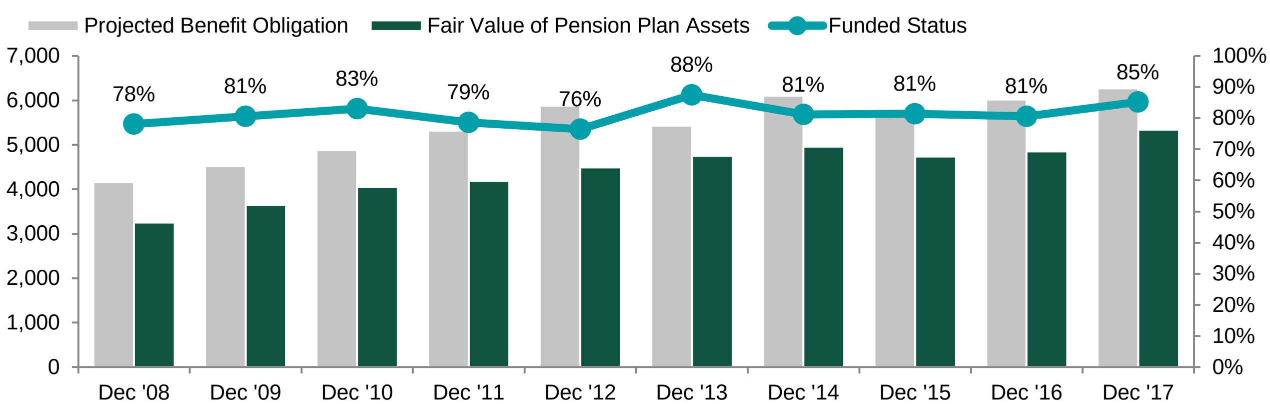


SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

FUNDED STATUS

We highlighted earlier that the funded status saw the best improvement in five years, landing at 85% at the end of 2017. Funded status is defined as the plan assets divided by the plan obligations. Plan obligations at the end of 2017 were $6.3 billion – an increase over 2016 of 5%. In fact, the total obligations have continued their climb upward and are likely sitting at their largest levels ever - even with some notable plans off-loading a portion of their obligations to insurers over the last five years. For this we have to thank the low level of interest rates. At the end of 2017, the average interest rate in effect for pension plans was 3.31%. Any future increases to interest rate levels will undoubtedly help lower plan obligations over time. But it is important to note that pension obligations are measured at the long end of the corporate bond yield curve. While this benchmark rate has increased 50 basis points through the first four months of 2018, the Federal Reserve is focused on the short end of the curve so Fed actions to raise rates could have a muted effect on the long end of the curve. Additionally, the level of interest rates around the globe continues to apply downward pressure on the long end of the curve in the US. So the interest rate that impacts pension obligations may not rise as fast as the shorter end of the curve has been rising.

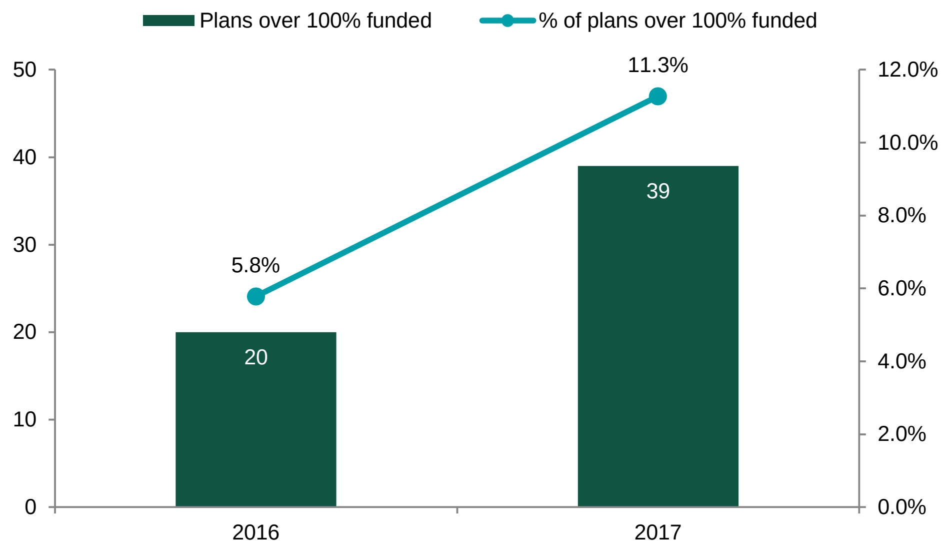
EXHIBIT 3: S&P 500 AVERAGE PBO VS. AVERAGE PLAN ASSETS



SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

The improvements in funded status have allowed for significant increase in the number of plans that can now be considered fully funded – with plan assets being larger than the plan obligations as reported on the balance sheet. In 2016, there were just 20 corporations (less than 6% of the total population) that were over 100% funded. In 2017, there are now 39 corporations (over 11% of the total population) that are over 100% funded. We can expect to see further changes to the investment strategy based on these improvements.

EXHIBIT 4: FUNDED PLANS



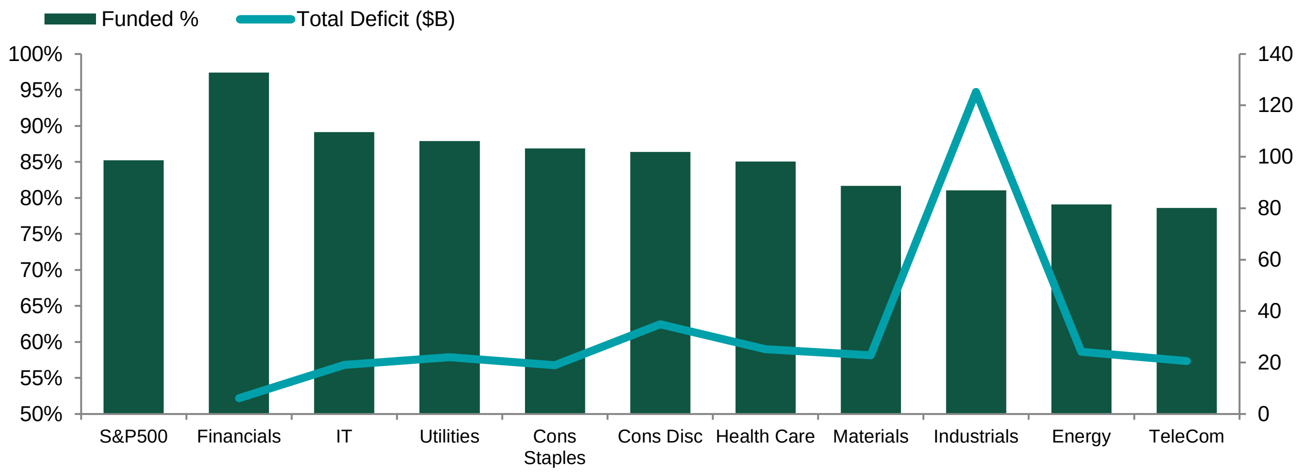
SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

FUNDED STATUS BY SECTOR

We have already looked at how materiality of pensions varies across sectors. Let's consider how the funded status of their plans varies as well. As we highlighted earlier, the largest plans relative to market cap reside in the Industrial, Manufacturing, Utilities, and Telecommunications sectors. Three of those four sectors are at the low end of funded status metrics, the one exception being Utilities. While material to the organization, Utilities with the reimbursement of pension costs through the rate-setting process generally have been able to maintain higher contributions to their pensions and retain higher funded status levels. On the other hand, the Industrial, Manufacturing, and Telecommunications sectors include some of the longest-standing manufacturing companies in the U.S. Large union populations, long-standing pension obligations and several years of short cash flow has resulted in lower funded status for these sectors. As we will see later, this has an effect on how these corporations choose to manage their investment strategy.

On the flip side are sectors like Financials, Health Care, and Consumer Staples where on average pensions represent just 8% of market cap, and each is funded near or above the average funded status in the S&P 500. These sectors in general are somewhat less focused on removing the pension risk from their balance sheets.

EXHIBIT 5: 2017 FUNDED RATIO VS. TOTAL DEFICIT

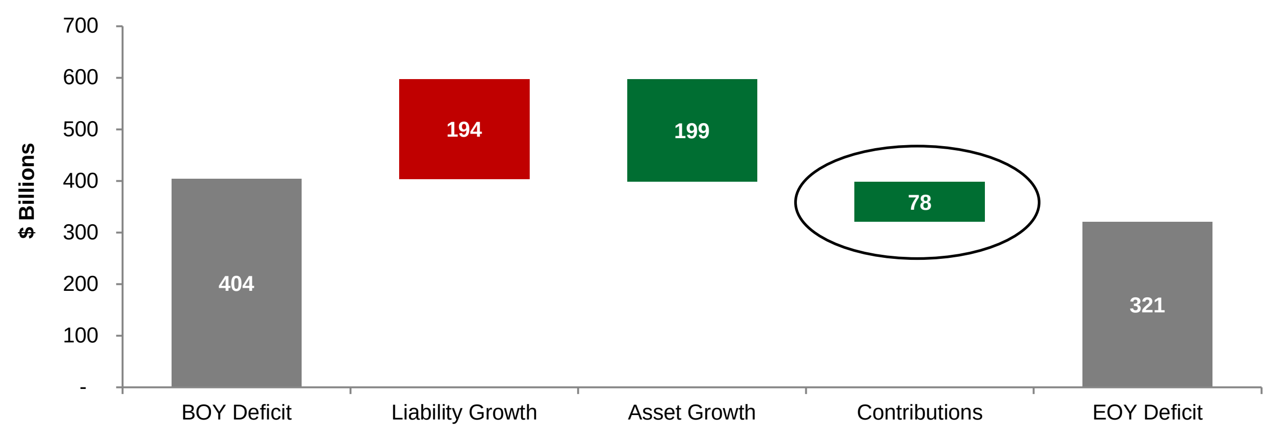


SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

FUNDED STATUS IMPROVEMENT – WHERE IS IT COMING FROM?

We have already described how pension obligations rose in the last year due to the low level of interest rates. The strength of the global equity markets was enough to offset that obligation growth. But pension obligations are still growing. Even though some plans are frozen, there are still many plans that have continued accrual growth, and even pension plans that are completely frozen experience growth in obligations with participants one year closer to receiving their payouts (increasing the present value of the obligation). The following chart demonstrates how the total deficit has decreased from $404 billion to $321 billion during 2017.

EXHIBIT 6: 2017 S&P 500 FUNDED STATUS ATTRIBUTION



SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

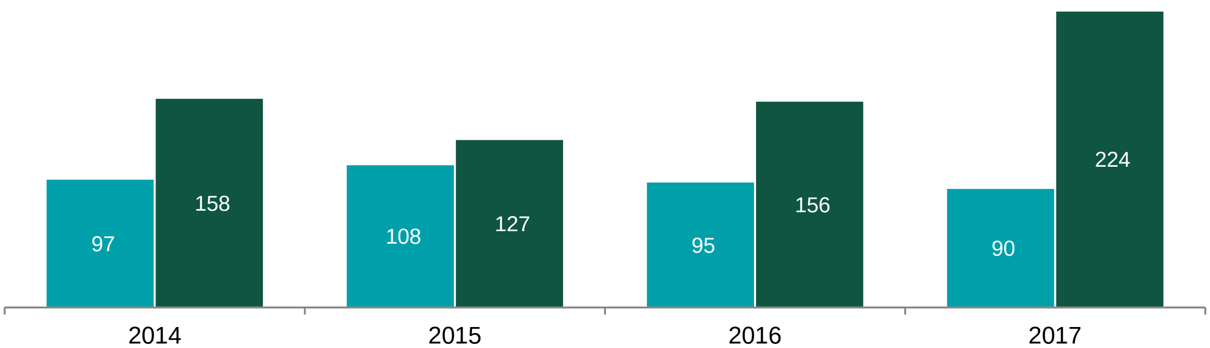
While asset returns were strong in 2017 (recall the 24% return in the global equity markets), they were barely enough to cover the liability growth during the year. That leaves contributions as the primary improvement in funded status during 2017. Let's take a further look at how companies are choosing to allocate their capital to the pension plans and how these decisions are impacting the corporate balance sheet.

PART II – CORPORATE FINANCE IMPACT

CAPITAL ALLOCATIONS TO PENSION PLANS

Total capital allocated to pension plans amounted to $77 billion. Some of that cash could be considered to cover ongoing accruals for those plans that are still open to some or all participants. In fact, the amount of ongoing accruals (defined as "service cost" in pension accounting terminology) in 2017 was on average $90 million, compared to the average contribution of $224 million. The difference - $134 million - can be considered capital that is used to basically retire outstanding debt – capital allocated to the pension plan above and beyond what is required to cover the cost of benefit accruals during the year. That is **$46 billion in aggregate** that is not being used to grow the company through acquisition, improve plants or equipment, devote to new research and development, or shared with investors through dividends and/or share repurchases.

EXHIBIT 7: SERVICE COST VS. AVERAGE PENSION CONTRIBUTIONS ($ MILLIONS)



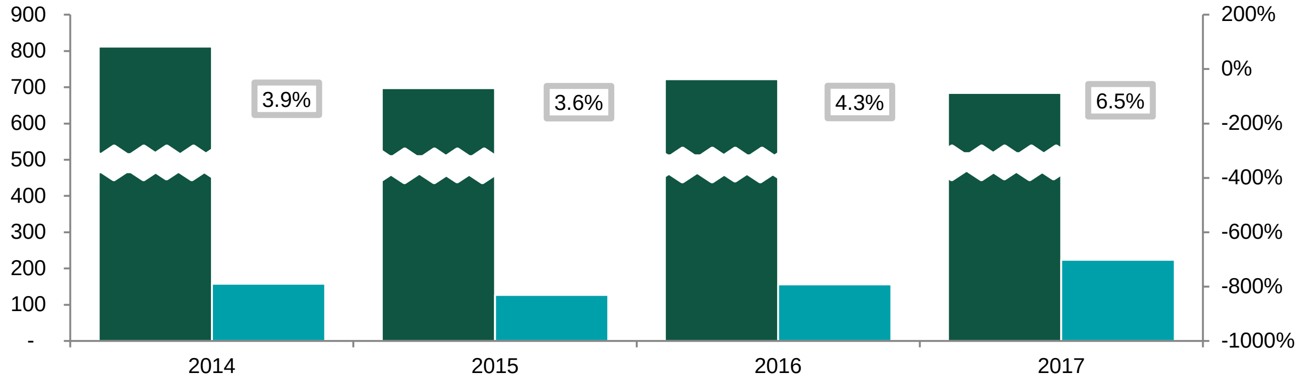
SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

Let's take a deeper dive into these contributions and understand how they are impacting the corporation's balance sheets.

In 2017, these corporations generated an average of $3.4 billion in cash from operating activities. On average, $224 million in cash was contributed to the pension plan. Said another way, 6.5% of all cash generated from operating activities was allocated to the pension plan. In 2016, that same percentage was just 4.3%: $3.6 billion in cash generated from operating activities, and $156 million contributed to the pension plan.

So from 2016 to 2017, corporations generated *less* cash, yet allocated *more* cash to the pension plan. This trend has been continuing as can be seen from the following chart:

EXHIBIT 8: AVERAGE S&P 500 CONTRIBUTION AS A % OF CASH ($ MILLIONS)



SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

Note that of the 346 companies in the S&P 500 that sponsor pension plans, roughly 90% allocated at least some amount of capital to their pension plans.

Why such a pick-up in pension contributions in 2017? This is actually not a major surprise. We had predicted such an up-tick in our report last year. Primary reasons for this increase include the following:

- **Funding relief is wearing away:** For several years after the enactment of the Pension Protection Act in 2008, Congress provided for funding relief to plan sponsors. That funding relief had a wear-away provision and we started to see required contributions hike up in 2017 as a result.
- **Minimize punitive penalties:** The PBGC (the governmental agency established to insure pensions) are themselves in a deficit and have dramatically increased their premiums, especially for underfunded pensions. Corporations are voluntarily making larger contributions to improve their funding status and mitigate these penalties.
- **Tax Reform:** This might be the biggest catalyst for 2017. At the current tax rates, plan sponsors get a deduction of 35% for contributions made to the pension plan. With the 2018 tax rates, that deduction will drop to just 21%. There is a clear short-term incentive for plan sponsors to get those contributions in and benefit from the higher deduction before the new rates are effective.

So what do we expect for 2018?

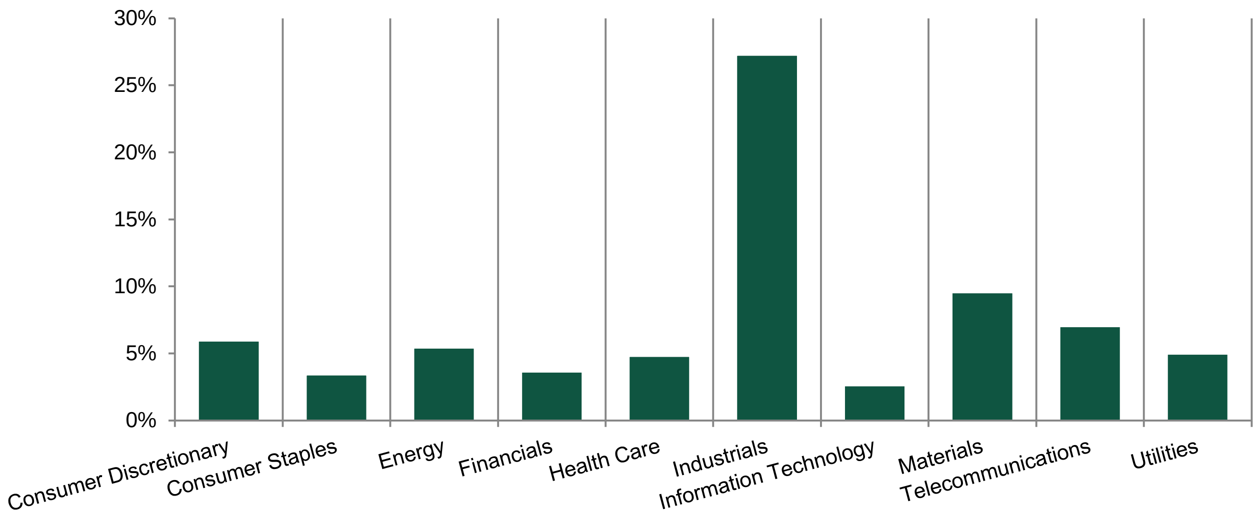
Largely the same result – at least in the short term. We expect the economy to continue to grow and thus would expect the cash generated from operating activities to be relatively constant or experience slight growth. The three reasons listed above for larger contributions in 2017 are all still relevant for 2018. In fact, Tax Reform might be even more relevant in 2018. Tax Reform was passed in late December 2017, so corporations did not have much time to implement capital decisions before the end of the calendar year. But the way the tax law is set up for pension contributions gives most plan sponsors until September 15, 2018 to make a contribution and deduct it using 2017 tax rates. As a result, we expect to see more corporations increase their level of contributions in 2018 to bank this tax benefit. In fact, many corporations have already announced large contributions during the first quarter of 2018. A sampling of public announcements includes the following five companies with a combined $10 billion in contributions alone:

- Lockheed Martin: $5 billion
- FedEx: $2.5 billion
- PepsiCo: $1.4 billion
- Pfizer: $0.5 billion
- Motorola: $0.5 billion

If we were bettors, we would predict that the relative 6.5% of cash generated that was allocated to the pension plan will increase in 2018 – in other words, we would take the “over”.

When we look at how these cash metrics compare across different sectors, it is relatively consistent – with the exception of the same sectors we identified earlier where the pension is the most material – Industrials, Manufacturing and Telecommunications. These three sectors also allocated the most cash to their pension plans relative to the operating cash they generated. The Industrial sector allocated a whopping 27% of all cash generated from operating activities into the pension plan – they were just 10% in the prior year.

EXHIBIT 9: 2017 PENSION CONTRIBUTIONS RELATIVE TO CASH GENERATED BY SECTOR



SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

BUT THEN WHY ARE MY PENSION COSTS GOING DOWN….?

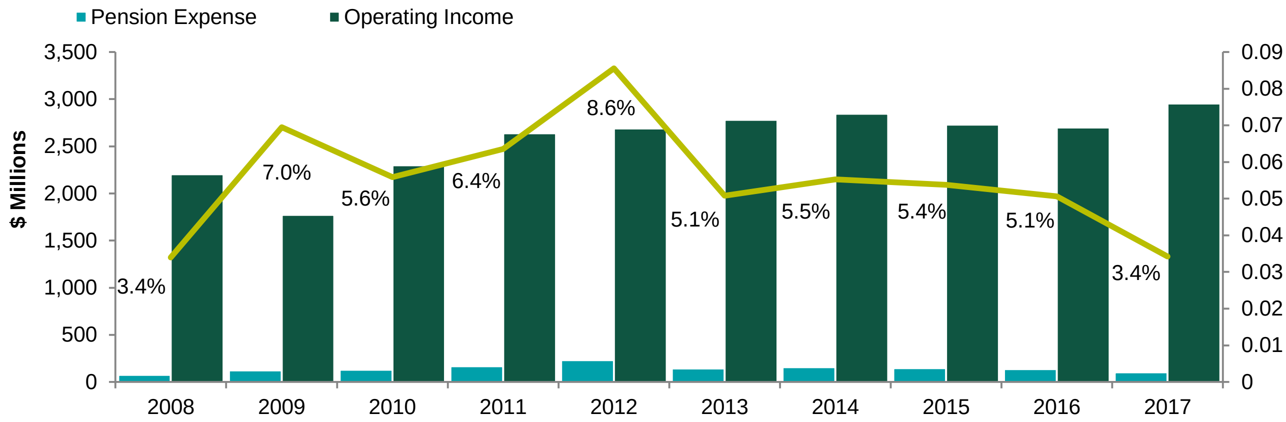
Ask an actuary how much a pension costs and you are likely to get as many as three different answers. Pensions are subject to a multitude of regulations and different governing bodies.

We have talked about cash – that is governed by the IRS and DOL and based on rules and regulations established by Congress. In general, these rules and regulations incorporate long-term views and thus are less sensitive to the current market environment.

The amount required to be booked on the Income Statement as pension expense is governed by the Financial Accounting Standards Board (FASB). The rules and regulations governing pension accounting are more heavily tilted towards a marked-to-market approach. As a result, pension expense tends to be more sensitive to the actual market environment.

The difference in these two cost constructs often leads to the cash outlay to the pension plan in a given year being very different than the accounting cost of the pension plan recorded on the Income Statement. In 2017, the average pension plan expense was $101 million. During that year, corporations earned average operating income of $2.95 billion. As the chart below details, not only did 2017 represent the highest corporate earnings over the last ten years for this group of companies, the pension expense was the lowest amount since 2008. That combination has led to pensions taking the smallest bite out of the corporate earnings apple in ten years.

EXHIBIT 10: S&P 500 AVERAGE PENSION EXPENSE VS. AVERAGE OPERATING INCOME



SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

So while pensions can be seen as *more* costly from a cash flow perspective, they are *less* costly from the income statement perspective.

What are the contributing factors that are driving the pension expense lower? Primarily they include:

- **Lower accruals:** Pension plans are only shrinking in terms of employee participation. Many are closed to new hires if not completely frozen. As participants retire they are not being replaced in the pensions, so overall accrual rates are falling.
- **Assets outpacing liabilities:** As discussed earlier, liabilities are growing, but assets are growing faster in part to large contributions. That helps to keep the pension expense down.
- **Unrecognized losses getting smaller:** Pension accounting requires the recognition over many years of actuarial losses. The large losses that were accumulated at the financial crisis and for several years afterwards as a result of falling interest rates have been partially recognized in pension expense for the last several years, chipping away at the total amount outstanding.

So would we take the “over” or “under” for pension expense relative to operating income in 2018? We will go with the “under”. The reasons listed above will be just as relevant in 2018 – especially one more year of anticipated higher contributions, along with continued expected economic growth should drive the overall relativity of pension expense to corporate earnings down.

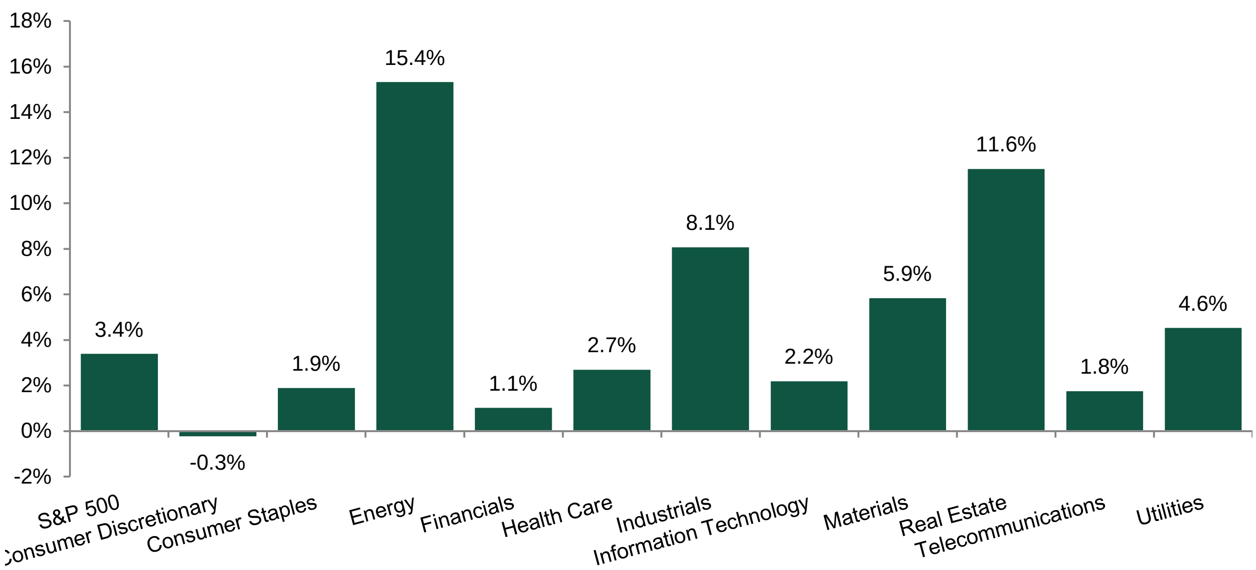
PENSION EXPENSE BY SECTOR

Not surprisingly, the sectors with the most material pensions and the lowest funded status (Industrials, Materials, Utilities) have the highest relative pension expense amounts – with the Industrial sector having 8.1% of its operating income ($2.4 billion in 2017) taken up by the expense of the pension plan ($192 million in 2017). Said another way, the operating income for the Industrial sector would be 8.1% higher if not for the pension expense.

One notable exception here is the Energy sector. In 2017, companies in the Energy sector generated on average $1.6 billion in operating income - just more than half of the $3.0 billion in operating income generated by S&P 500 companies on average. The pension expense for companies in the Energy sector was $243 million – more than double the average pension expense for S&P 500 companies. Many Energy companies still have open pension plans which lead to higher service cost and pension expense. Additionally, the lower funded status of the sector also leads to a higher expense amount. This combination of higher pension expense with operating income that lags the broader S&P 500 leads to a more significant impact of the pension expense relative to corporate earnings in the Energy sector.

The Consumer Discretionary sector on the other hand produced the lowest pension expense relative to operating income – actually producing on average pension income. This is primarily due to lower service cost (this sector seems to have higher preponderance of closed/frozen pensions than other sectors), higher than average funded status, and lower settlement charges than other sectors (more on that below).

EXHIBIT 11: 2017 PENSION EXPENSE / OPERATING INCOME BY SECTOR

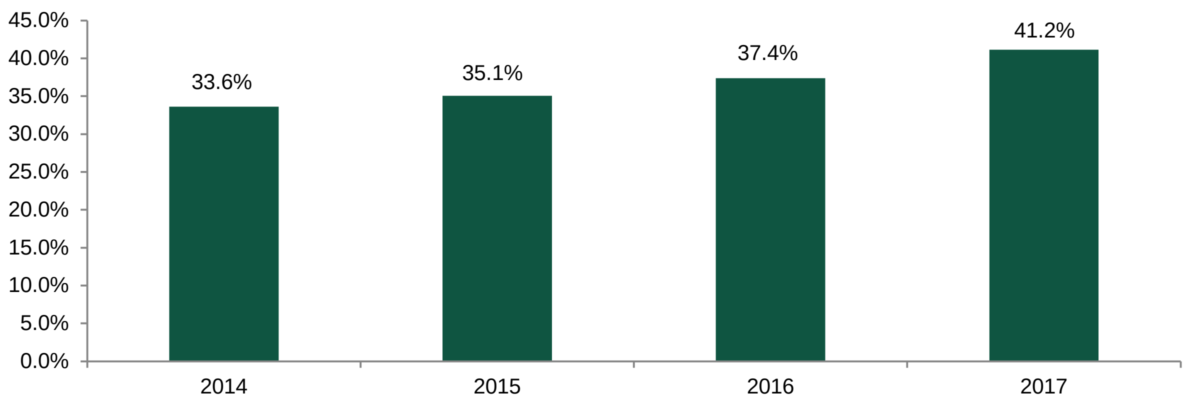


SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

SETTLEMENTS

One element that could drive pension expense higher is settlement activity. Settlements are defined as the immediate payout of participant obligations – either through lump sums to participants or the transfer of the obligation (and associated assets) to an insurer – referred to as pension risk transfers. Settlement is an accounting terminology triggered by the size of the payout. If the settlement amount is larger than a certain threshold[1], then an additional line item for pension expense is triggered. Many corporations have engaged in settlement activities over the last several years – in large part because of the increasing administrative cost of maintaining participants in the pension plan from the PBGC, as well as the appetite of insurers to take on retiree obligations. The chart below shows the proportion of plans that have incurred settlements over the last four years – not surprisingly, an increasing proportion with over 41% of corporations settling some obligations during 2017.

EXHIBIT 12: CORPORATIONS TRIGGERING SETTLEMENT ACCOUNTING

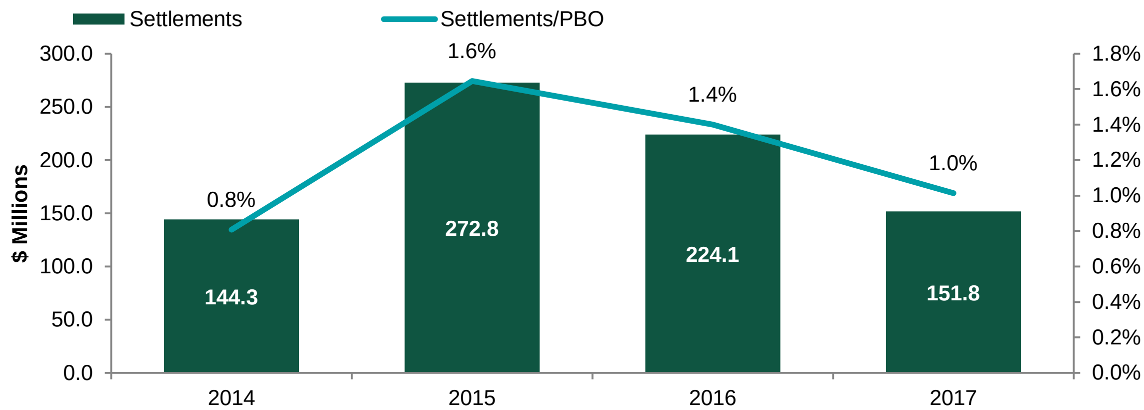


SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

What is interesting is that while the number of corporations experiencing settlements has increased, the amounts settled dropped in each of the last two years – both as a total dollar amount and as a percent of liabilities settled.

[1] The threshold for settlements is defined as the sum of the service cost and interest cost components from the pension expense disclosed on the income statement.

EXHIBIT 13: S&P 500 AVERAGE PENSION SETTLEMENTS VS. PBO



SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

Why the drop in settlement amounts? We believe there are primarily two answers as it relates to 2017:

1. For several years beginning in 2014/2015, the IRS has been telegraphing that they would be updating the mandated mortality table assumption for pension plan sponsors determining lump sum amounts. It was only recently announced that this would be effective in 2018. As plan sponsors knew this was coming several years in advance, there was a rush to the exits for plans wanting to rid themselves of the obligations at a lower cost through lump sum payouts to participants. That likely explains the spike in 2015. The lump sum payouts have continued, but not at the same pace.

2. The other payout that triggers settlements are transferring obligations to insurance companies. Insurers have disclosed that there was roughly twice the amount of this activity in 2017 as in the previous two years. However, many plan sponsors target an amount to transfer that will be less than the settlement threshold, thus avoiding additional pension cost.

As pensions continue to improve their funded status, we expect to see the trend of transferring obligations to insurers to continue. In fact, on May 8, FedEx announced a transfer of $6 billion in pension obligations to an insurance company. However so far to date, as can be seen in the table above, the amounts being settled in totality reflect a very small portion of total pension obligations for these companies – with just 1.0% of outstanding obligations settled during 2017. We expect that percentage to increase in 2018 (from events like FedEx), but we still expect the total amounts settled across all corporations to be a very small amount of total liabilities held by these plans.

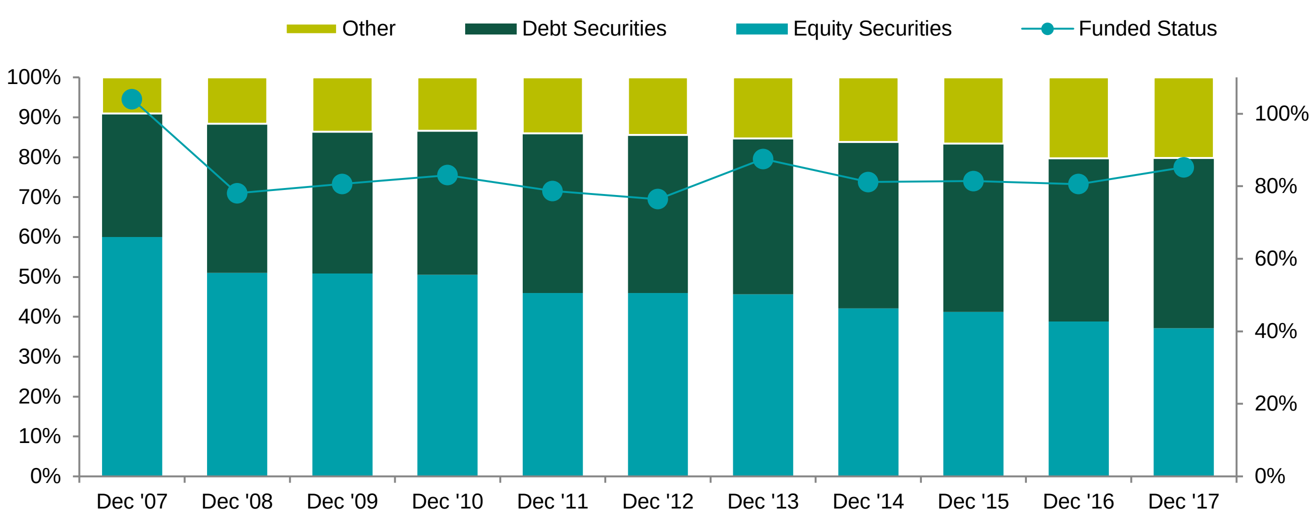
PART III – INVESTMENT STRATEGY

With the background of how pensions are impacting the corporate balance sheet and in light of 2017 activities, let's look at how these corporations are choosing to manage their pension assets.

The trend towards Liability-Driven Investing (LDI) has continued. This is an approach whereby the assets are invested in long-duration fixed income vehicles so that they behave similarly to the plan obligations (highly sensitive to the level of long-term interest rates). Ten years ago, the average fixed income allocation was 31%. In 2017, it was 43% - including a 2% point rise from the prior year.

Equities which were at 60% 10 years ago have fallen to 37% in 2017 – including a 2% drop from the prior year. (Note 10-k reporting allows plans to disclose any assets held at NAV in the "other" category, so this would include mutual fund holdings as well as alternative asset classes such as hedge funds, private equity and real estate.)

EXHIBIT 14: S&P 500 ASSET ALLOCATION VS. FUNDED RATIO



SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

When you consider the funded status relative to asset allocation, one can see how the investment strategy changes as the funded status moves – in apparently a one-year lag.

- For example, in 2010, the funded status improved from 81% to 83%. But it took until the following year – 2011 – for fixed income allocations to increase from 36% to 40%.

- That pattern repeated itself in 2013 when the funded status rose considerably from 76% to 88% - but it was not until the following year – 2014 – when the fixed income allocation increased from 39% to 42%.

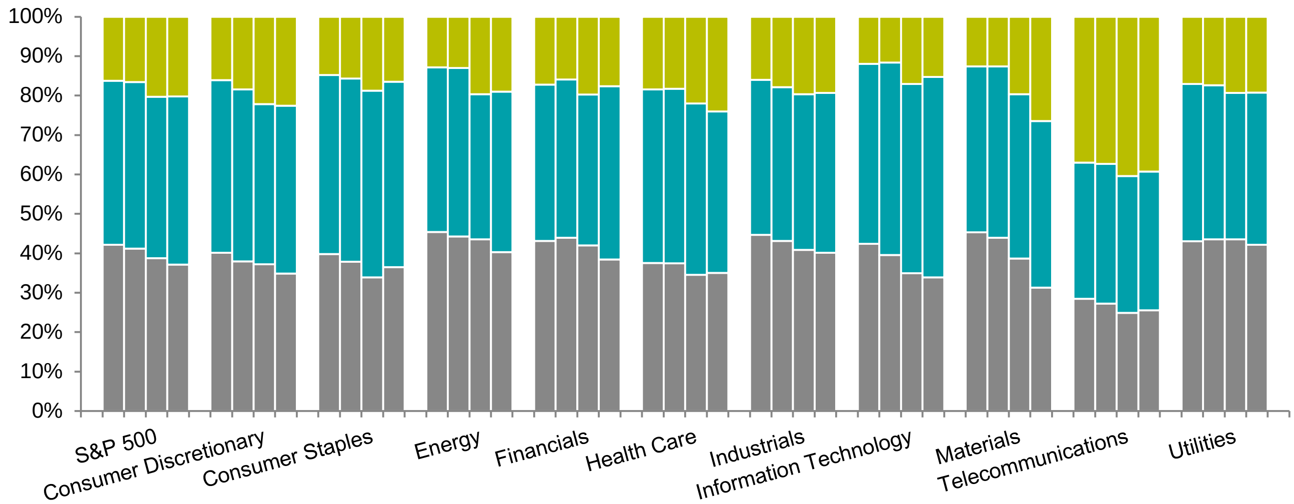
Likely, it takes some time for Investment Committees to enact changes to their asset allocation strategy in light of improvements in funded status. One of the trends we have seen over the last several years is the adoption of investment de-risking glide paths – whereby the Committee approves in advance that the asset allocation will move from return-seeking (i.e., equities) investments to liability-matching (i.e., fixed income) investments as the funded status increases.

The evidence of these "automated" de-risking glide paths can be seen in 2017. We saw the funded status improve from 81% to 85%. During the same time period, the fixed income allocation increased from 41% to 43% - and this in a year where global equity markets were very strong. It is likely the more immediate changes to the fixed income allocation are resulting from the adoption of these de-risking glide paths.

ASSET ALLOCATION BY SECTOR

Further insight can be gained when we look at the asset allocation for each industry on its own.

EXHIBIT 15: ASSET ALLOCATION BY SECTOR FOR 2014-2017



SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

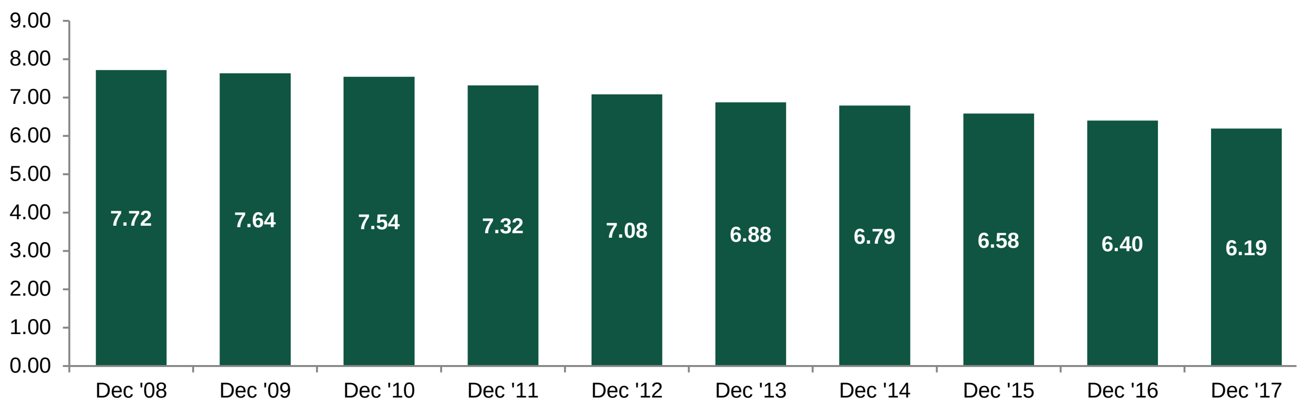
- **Industrials:** This sector experienced three straight years of falling funded status (2014: 78%, 2015: 77%, 2016: 75%), before finally improving in 2017 to 81%. During those first three years, the allocation to Fixed Income maintained steady at 39%. But with the increase in funded status from 75% to 81% in 2017, a shift in Fixed Income allocation was made upwards to 41%.

- **Energy:** This sector maintained a relatively steady funded status over the prior three years (ranging from 74% to 75% between 2014 and 2016) before experiencing a bump up to 79% in 2017. During the prior three years, the allocation to Fixed Income fell as a percentage of the total portfolio. However, in 2017, commensurate with the improved funded status, there was a notable 4% increase in the allocation to Fixed Income.
- **Financials:** This is the best funded of all the sectors at 97% funded (likely due to the low-cost access to capital and commitment to funding in this sector). During the prior three years, the funded status ranged from 92% to 93%. During that time period, the allocation to Fixed Income hovered between 38% - 40%. With the jump in funded status this year, we saw a material change in the fixed income allocation from 38% to 44%.
- **Consumer Staples:** This sector is notable in that the asset allocation moved the opposite way – actually increasing their allocation to equities from 34% to 37% – where the average industry standard has been to lower the equity allocation. Why might this industry have seen an increase? For one, the materiality of the plan relative to market cap is low – it fell from 11% in 2016 to 8% in 2017 (recall the average company in the S&P 500 is 13%). It is funded better than the average plan at 87%.

THE EXPECTATION FOR ASSET RETURNS CONTINUES TO FALL

As evidenced by the following chart, corporations are continuing to lower the assumption for what they expect to return from their plan assets.

EXHIBIT 16: EXPECTED LT RETURN RATE ON PLAN ASSETS (%)



SOURCE: Northern Trust Multi-Manager Solutions. Factset as of 4/9/18.

Much of this trend downward is due to the long-term shift from equities to fixed income to better match the movement with plan liabilities. In general, fixed income earns less then equities, and so corporations are prepared to accept a lower level of return as a trade-off for better downside protection. But this downward trend in expected returns also reflects the lower-return environment that pension sponsors find themselves in relative to prior years. Couple this with the high level of capital that corporations are allocating to the pension plan and we believe there needs to be great focus on ensuring that the monies invested in pensions are invested wisely – that plan sponsors are getting compensated for the risk they are taking, and are getting the right “bang for their buck”.

SUMMARY: GETTING BANG FOR YOUR BUCK

What the data is telling us is that as pensions get closer to their targeted outcome – whether that is a fully funded plan, off-loading to an insurance company, or maintaining a high return-seeking target for open plans – corporations are focused on getting the right “bang for their buck”. The data also shows us how the implications of the pension plan on the corporate balance sheet impacts the pension investment strategy. Moving from return-seeking assets (i.e., equities) to liability-matching assets (i.e., fixed income) allows for pensions to preserve the improvements in their funded status they have experienced from markets and/or capital allocations. Additionally, the lower return environment pension sponsors find themselves in is leading investment committees to look for new asset classes that can provide for greater returns at a reasonable level of risk.

We believe that all investors – and especially pension plan sponsors in the regulatory environment they are subject to – should get compensated for the risks they take. In defined benefit pensions, that includes the asset-liability risk, as well as viewing risk from an asset-only perspective. So what would we do with all of this? How do we incorporate this into the portfolio construction of a pension plan? Consider the following four high-level points as a framework for setting the pension investment strategy:

1. **Understand the true risks in your portfolio:** Before allocating significant capital to the pension plan, we believe it prudent to be aware of all the risks buried in the portfolio. The asset holdings may appear to be diversified but what about the risks? We have found that scrutinizing the asset allocation through the lens of the underlying factor risks often reveals unintended or oversized exposures. By understanding the portfolio’s exposure to certain market dynamics like inflation, economic growth, currency, or other macro factors, you can ensure that your capital is deployed in line with a market view.

2. **Focus on intended and compensated bets:** All portfolios contain bets — whether intended or unintended. Even a passively implemented portfolio will have bets, be that high degrees of concentration to particular sectors or securities; or a bias toward momentum. Once you understand your bets, you want to position your portfolio towards those bets that you believe will be compensated and that are in line with your long-term strategy. Such alignment between underlying positions and long-term objectives are critical to meeting your goals.

3. **Choose your liability hedging instruments wisely:** Today, there are many options as to how best to hedge your plan liabilities. Choosing the right strategy and adjusting that strategy over time is critical to managing your pension risk. Use of an active manager to manage your long credit exposure can reduce the downside risk associated with material credit events that cannot be achieved through a passive index investment. However, a passive investment for your long government allocation could be a more cost-effective instrument - it can provide very low cost duration and an effective tail-risk hedge to your portfolio. As your plan becomes better funded, you may want to consider increasing the precision of your hedge through overlay or completion strategies.

4. **Be dynamic and nimble:** One thing we can be assured of is that markets are dynamic and they will change. We believe successful institutional investors need to do the same. With a strong understanding of a long-term goal coupled with an appreciation of the underlying risks and drivers of a portfolio, an investor is better positioned to be dynamic when markets provide opportunities. This may come in the form of an active rebalancing policy which allows you to buy on the dips and sell into strength. Or perhaps it takes the form of a de-risking glide-path which allows for buying into bond weakness as rates go up. Derivatives can also be effective tools to help manage a flexible strategy as they can provide a low-cost highly liquid way to adjust exposures and express a particular view, without the costs of doing so in the cash market.

Setting pension strategy is not a trivial exercise. Great care and prudence should be taken to understand how a pension fits into the overall corporate finance balance sheet. Applying the investment strategy to best fit with the corporate objectives takes an appreciation of the portfolio risks, understanding of market factors, and the ability to be dynamic and nimble. We believe this combination will best position the pension strategy to be in alignment with the overall corporate priorities and that there will be no negative surprises for the Executive Team, the Board of Directors, or Shareholders.