Pension Fund Strategic Positioning

Evan Giusto (Mentor: Philip Treick)

College of Business, Department of Finance

University of Wyoming

Honors Program *Lakewood, CO*

Pension funds have struggled in recent years to adapt to the low yield climate driven by low interest rates and volatile markets. As a result, they have struggled to maintain funding to meet their accrued pension liabilities. In order to meet the growing demands of their liabilities, pension funds have migrated away from low-risk assets towards riskier assets, which have changed the investment composition and risk profiles of these funds.

This paper identifies historical pension fund investment allocations and how those have proportionally changed over time. Despite pursuing different and riskier investment vehicles, pension funds continue to struggle to meet their liabilities. Among these risky assets, the focus of this paper will be on private equity and alternative assets. This paper then analyzes the implications and repercussions of investing in such assets, and what this means for the future of pension funds.

1. Introduction to Pension Concepts

Pension plans are retirement vehicles whereby workers defer current income in order to maintain an income during retirement. They comprise an enormous proportion of global financial assets, with a 2017 global pension survey by Willis Towers Watson estimating the total asset value of the twenty-two largest global pension markets at over $36 trillion.[1] Per the same study, U.S. pension assets comprise 61.7% (roughly $22 trillion) of the total pension assets within the study. To convey the sheer size of global pension markets, the study compares pension assets relative to gross domestic product (GDP), which is a measure of total economic output. In 2016, pension assets relative to GDP reached 62%.

Both private and public institutions offer pension plans. These plans are generally categorized as defined benefit (DB) or defined contribution (DC).[2] DB plans promise a certain amount of retirement income (i.e. defined benefit), whereas DC plans establish guaranteed contributions but no guaranteed outcome (i.e. defined contribution). With DB plans, the sponsor assumes the investment risk because it is liable to cover any pension liabilities in excess of plan contributions. DB plans achieve this by investing pension assets and generating returns, which cover the contribution shortfall. If investment returns fail to meet the payout liabilities, the company has to pay the difference.

---

[1] Global Pension Assets Study 2017. (n.d.). Retrieved May 11, 2017, from https://www.willistowerswatson.com/en/insights/2017/01/global-pensions-asset-study-2017

[2] Pension Fund Portfolio Management. (n.d.). Retrieved May 11, 2017, from https://www.caia.org/content/curriculum-study-tools

The liabilities of a DB plan are formulaically derived based on a number of assumptions: expected employment duration and turnover, expected average wages at retirement (which entail further assumptions based on current wages, estimated retirement ages, and projected wage inflation), expected duration of retirement (i.e. how many years the recipient will receive benefits), and the company's anticipated hiring plan. An actuary projects forward liability estimates and then discounts them back to derive a present value. The process of discounting is enormously challenging because of the many assumptions built into the formula. More assumptions increase the likelihood of error.

DB plans calculate both accumulated benefit obligations (ABOs) and projected benefit obligations (PBOs). The ABO is the present value of pension payouts already accrued by plan participants. The PBO is the present value of total projected pension payouts, relying on assumptions to derive a present value. The funded status of a pension plan is determined by comparing the proportion of current assets to the PBO. For many public pension plans, funding status determines the amount of required employer contributions. If investment returns and employee contributions fail to yield a minimum funded ratio, then the employer is required to contribute in order to fill the gap.

DB and DC plans have different advantages. DC plans, by not guaranteeing retirees a certain outcome, place less investment risk on the plan sponsor. Because there is less risk, DC plans tend not to employ large investment teams or invest in complex vehicles. Instead, they are easily managed and tend to invest in simple vehicles like mutual funds and fixed income securities. Because they are not

specifically tied to any one sponsor, they are also portable and can be transferred between employers. DB plans, because sponsors have a minimum required rate of return and a failure to achieve that rate leads to increased contributions, tend to have larger investment teams and invest in more complex vehicles. They are also not transferrable between employers, and usually have a vesting period before employees are eligible to participate (i.e. minimum number of years employed).

2. U.S. Pension Market Overview

This paper will focus on public sector plans within the United States. Standards for determining the funded status of U.S. pension plans are set by the Governmental Accounting Standards Board (GASB).[3] In 2015, the GASB changed its standards for determining discount rates and funded statuses. Traditional rules (GASB 25) allowed pensions to incorporate asset smoothing and long-run return assumptions when deriving discount rates. Under the new rules (GASB 67), pensions are allowed to employ traditional methods for the purpose of actuarial reports, but are required to value assets at market value for financial reporting. Prior to GASB 67, if assets fell during a year, a plan could report a higher value for assets by "smoothing," or averaging in past data to inflate the value of assets. This helps prop up funding ratios. After GASB 67, funds can still do this when determining funded status, but have to separately publish the value of assets at current market value. This means that if the market suffers, the drop in value will be

[3] Munnell, A. H., & Aubry, J. (n.d.). The Funding of State and Local Pensions: 2015-2020. Retrieved May 11, 2017, from http://crr.bc.edu/briefs/the-funding-of-state-and-local-pensions-2015-2020/

fully reflected without tampering in the plan's financial documents. This is important because poor performance will be more readily apparent without unduly affecting funding status assumptions and modeling. Another component of GASB 67 is a change in discount rate assumptions. Prior to GASB 67, funds had more leeway when determining discount rates, and the process was very arbitrary. With GASB 67, plans will still be allowed to use traditional discount rate assumptions for actuarial reporting, but are required to report more strictly regulated discount rates in financial reporting. For example, funds must use a financial discount rate that incorporates past performance. Poorly performing funds will have lower discount rates in their financial reporting than in their actuarial reporting, which increases the current value of plan liabilities. The implications of this and the challenges it presents to pension plans will be addressed later in this paper.

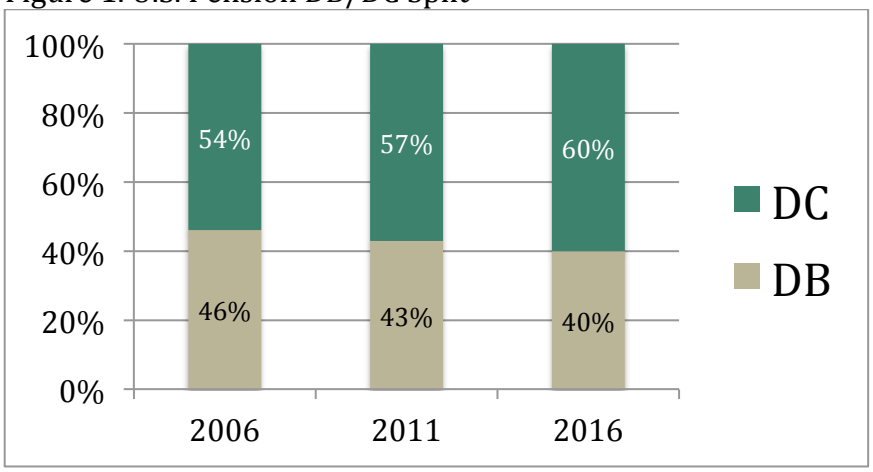
Another relevant regulation governing U.S. pensions is the Employee Retirement Income Security Act of 1974 (ERISA), which establishes the Pension Benefit Guaranty Corporation (PBGC).[4] The PBGC is a publicly established pension insurance company designed to protect participants, which it does by paying benefits if an underfunded plan terminates. It may also actively terminate a plan in order to protect plan participants or the overall insurance program. Plan sponsors pay annual premiums comprised of a fixed rate per participant and a variable rate based on funding status.

There are roughly 4,000 U.S. public pension schemes, with 227 administered by the state and 3,771 administered locally, which manage about $3.86 trillion in

[4] Geddes, T. J., Howard, B. B., Conforti, A. G., & Steinmetz, A. R. (n.d.). Pension Risk Transfer. Retrieved May 11, 2017, from https://www.soa.org/research-reports/2014/Pension-Risk-Transfer/

assets.[5] There are about 14.7 million working members (i.e. contributors) and 9.9 million retirees (i.e. recipients) within the system. The following graph outlines the proportion of DB versus DC schemes in the U.S.:

Figure 1. U.S. Pension DB/DC Split[6]

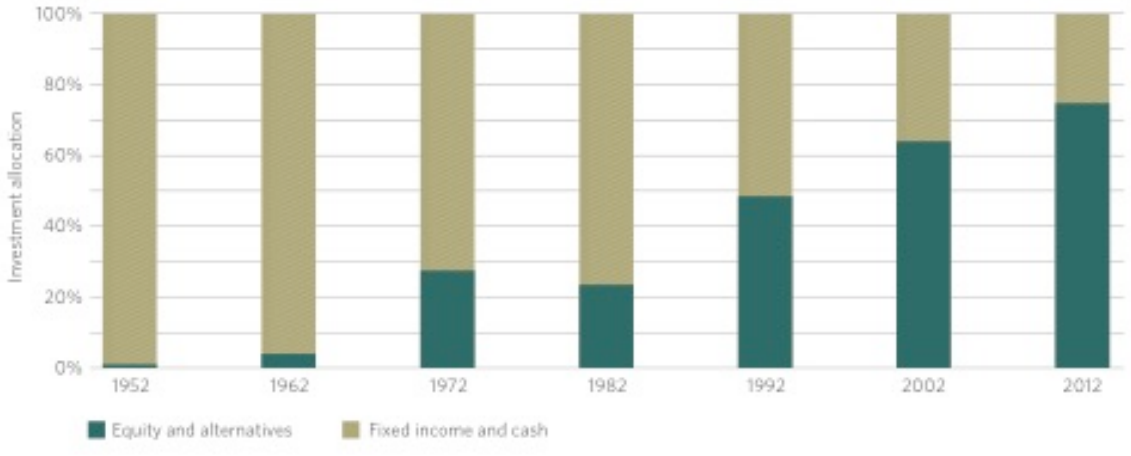


This graph shows a trend toward DC plans, which may be attributed to their value as a lower-risk alternative than DB plans. The reasons for this trend will be more fully addressed later in this paper. The following graphic displays historical asset allocations:

[5] Public Plans Data. (n.d.). Retrieved May 11, 2017, from http://crr.bc.edu/data/public-plans-database/

[6] Global Pension Assets Study 2017. (n.d.). Retrieved May 11, 2017, from https://www.willistowerswatson.com/en/insights/2017/01/global-pensions-asset-study-2017

Figure 2. Public Pension Asset Allocation, 1952-2012[7]



Source: U.S. Board of Governors of the Federal Reserve System, *Financial Accounts of the United States*, 1952 to 2012; Pew Analysis of State Financial Reports

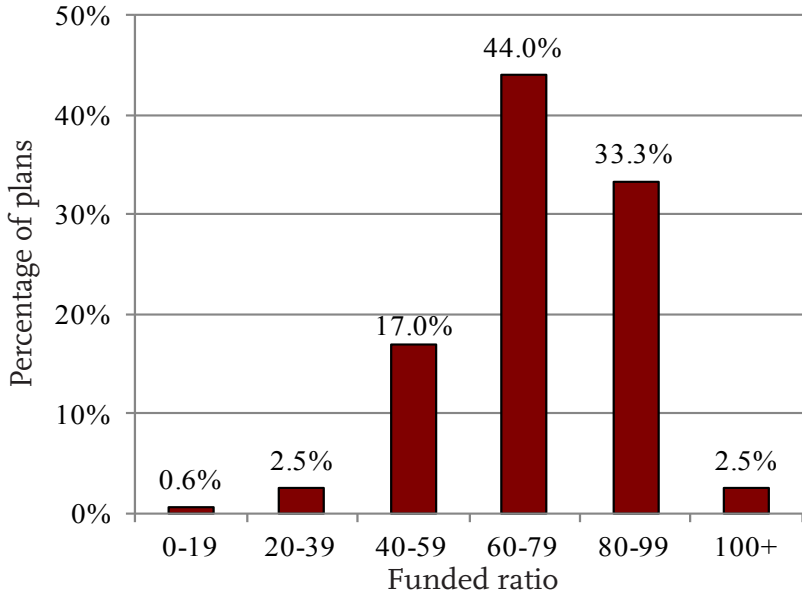
This graph shows an allocation trend towards riskier assets, equities and alternatives. Factors affecting this trend will be addressed later in this paper.

U.S. pension schemes generally employ a discount rate around 7.5-8%.[8] Data from the Center for Retirement Research found that the average assumed rate of return for public plans in 2015, using tradition rules, was 7.6%. Under these rules, funded ratios for FY2015 were as follows:

[7] State Public Pension Investments Shift Over Past 30 Years. (2014, June). Retrieved May 11, 2017, from http://www.pewtrusts.org/en/research-and-analysis/reports/2014/06/03/state-public-pension-investments-shift-over-past-30-years

[8] Munnell, A. H., & Aubry, J. (n.d.). The Funding of State and Local Pensions: 2015-2020. Retrieved May 11, 2017, from http://crr.bc.edu/briefs/the-funding-of-state-and-local-pensions-2015-2020/

Figure 3. Distribution of Funded Ratios For Public Plans Under Traditional Rules, FY2015[9]



Understanding the general features of U.S. public pension funds is important for evaluating repositioning in the context of current market conditions. This paper will address how current market challenges will change many of these characteristics of the U.S. public pension system.

3. Challenges Facing Pensions

The primary challenge facing pension funds is achieving or maintaining funded status. This is due in part to the sensitivity of funding ratios to changes in assumed discount rates. A study of U.S. public pension funds, conducted by the Center For Retirement Research at Boston College, illustrates funding sensitivity in a hypothetical example:

[9] Munnell, A. H., & Aubry, J. (n.d.). The Funding of State and Local Pensions: 2015-2020. Retrieved May 11, 2017, from http://crr.bc.edu/briefs/the-funding-of-state-and-local-pensions-2015-2020/

Figure 4. Aggregate State and Local Pension Measures Under Alternative Discount Rates FY 2015, Trillions of Dollars[10]

Measure	Discount rate				
	7.6%	7%	6%	5%	4%
Total liability	$4.5	$5.1	$5.8	$6.6	$7.5
Actuarial assets	3.4	3.4	3.4	3.4	3.4
Unfunded liability	1.2	1.8	2.5	3.3	4.1
Percent funded (Traditional rules)	74%	65%	58%	51%	45%

As shown in the data above, simple changes to the assumed discount rate can have significant effects on the funded status of a pension plan. Plan sponsors are reluctant to reduce the assumed discount rate because it may increase the value of plan liabilities and therefore affect funded statuses. This in turn may trigger mandatory sponsor contributions to the fund. Recent regulations like GASB 67 implement new standards for determining discount rates, which in many cases lower the assumed rate for pension plans. The following table quantifies the effect of reduced discount rates on funded statuses for certain plans:

[10] Munnell, A. H., & Aubry, J. (n.d.). The Funding of State and Local Pensions: 2015-2020. Retrieved May 11, 2017, from http://crr.bc.edu/briefs/the-funding-of-state-and-local-pensions-2015-2020/

Figure 5. Plans Adopting a Significantly Lower GASB 67 Blended Rate, 2015[11]

Plan	Rate		Funded status	
	Actuarial	GASB 67	Actuarial	GASB 67
Cincinnati ERS	7.5%	5.6%	64.3%	57.5%
Cook County Employees	7.5	4.5	57.6	41.4
Dallas Police & Fire	7.3	4.5	63.8	38.2
Duluth Teachers	8.0	5.4	56.9	46.8
Kentucky Teachers	7.5	4.9	55.3	42.5
New Jersey PERS	7.9	4.9	59.5	38.2
New Jersey Police & Fire	7.9	6.3	72.6	52.8
New Jersey Teachers	7.9	4.7	51.1	28.7
Texas ERS	8.0	6.9	76.3	64.4
Texas LECOS	8.0	5.0	72.0	47.8

In some cases, implementing the new GASB standards reduces the assumed discount rate to such an extent that it reduces funding status by almost half. This is an enormous challenge to pension plans because a simple change in assumptions has the potential to drastically affect funding and therefore contribution amounts.

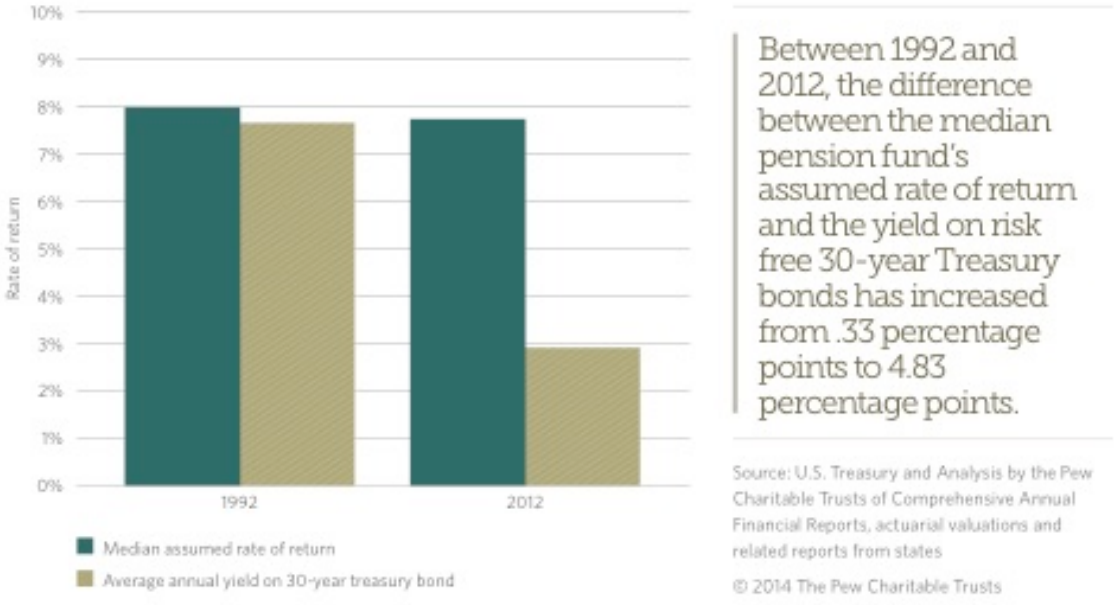
Another challenge facing pension plans is achieving the minimum required rate of return to meet future liabilities. One factor affecting investment returns is the low-yield environment in fixed income investments. Fixed income refers to bonds, which are a form of debt. An investor will lend the issuer money (i.e. buy a bond) for a predetermined period of time, during which the investor will receive regular interest payments (i.e. coupons). While there are various levels of risk associated with different types of fixed income (e.g. government vs. corporate), bonds are

[11] Munnell, A. H., & Aubry, J. (n.d.). The Funding of State and Local Pensions: 2015-2020. Retrieved May 11, 2017, from http://crr.bc.edu/briefs/the-funding-of-state-and-local-pensions-2015-2020/

traditionally viewed as a low-risk asset. For pension plans, fixed income investments have traditionally functioned to reduce portfolio risk while still generating some returns. Furthermore, because pension plans have clearly projected payout schedules, fixed income investments are convenient to match these cash outflows. Plans strategically receive cash from fixed income investments at the same time that payouts are due. In recent years, however, bond yields have fallen to historical lows.

The implications of falling bond yields is that fixed income investments, while still relatively low-risk, no longer generate sufficient returns for pension plans. The following graph illustrates the divergence of pension plan assumed rates of return and bond yields:

Figure 6. Differences Between Assumed Rate of Return and U.S. 30-Year Treasury Yields, 1992 and 2012



As shown in the graph, the median assumed rate of return used by pension plans has not changed to reflect changes in bond yields. Part of the reason that discount rates have not changed to reflect yields is that high rates keep funding costs low.[12] If the expected return of investments is low, then plan sponsors will have to increase contributions in order to compensate. Higher discounts rates keep contribution payments low for plan sponsors, but increase the likelihood of not meeting the required rate of return. As a result, plans compensate by investing in riskier assets with higher rates of return. This trend was illustrated previously in Section 2.

Another challenge facing pension funds is adapting to changing population demographics. The following table displays current and projected average life expectancies in the U.S. by both gender and race:[13]

Figure 8.
Projections of Life Expectancy at Ages 0, 65, and 85 by Sex, Race, and Hispanic Origin: 2012 and 2050

Age and year	Group 1: Non-Hispanic White and Asian or Pacific Islander		Group 2: Non-Hispanic Black and American Indian or Alaska Native		Group 3: Hispanic (of any race)	
	Males	Females	Males	Females	Males	Females
Age 0						
2012	77.1	81.7	71.7	78.0	78.9	83.7
2050	82.2	86.2	79.0	83.5	82.2	86.2
Age 65						
2012	18.1	20.7	16.3	19.5	19.5	22.1
2050	20.6	23.5	19.2	22.3	20.6	23.5
Age 85						
2012	6.0	7.1	6.3	7.4	7.1	8.0
2050	7.0	8.5	7.0	8.4	7.0	8.5

Source: U.S. Census Bureau, 2012 National Projections.

[12] State Public Pension Investments Shift Over Past 30 Years. (2014, June). Retrieved May 11, 2017, from http://www.pewtrusts.org/en/research-and-analysis/reports/2014/06/03/state-public-pension-investments-shift-over-past-30-years

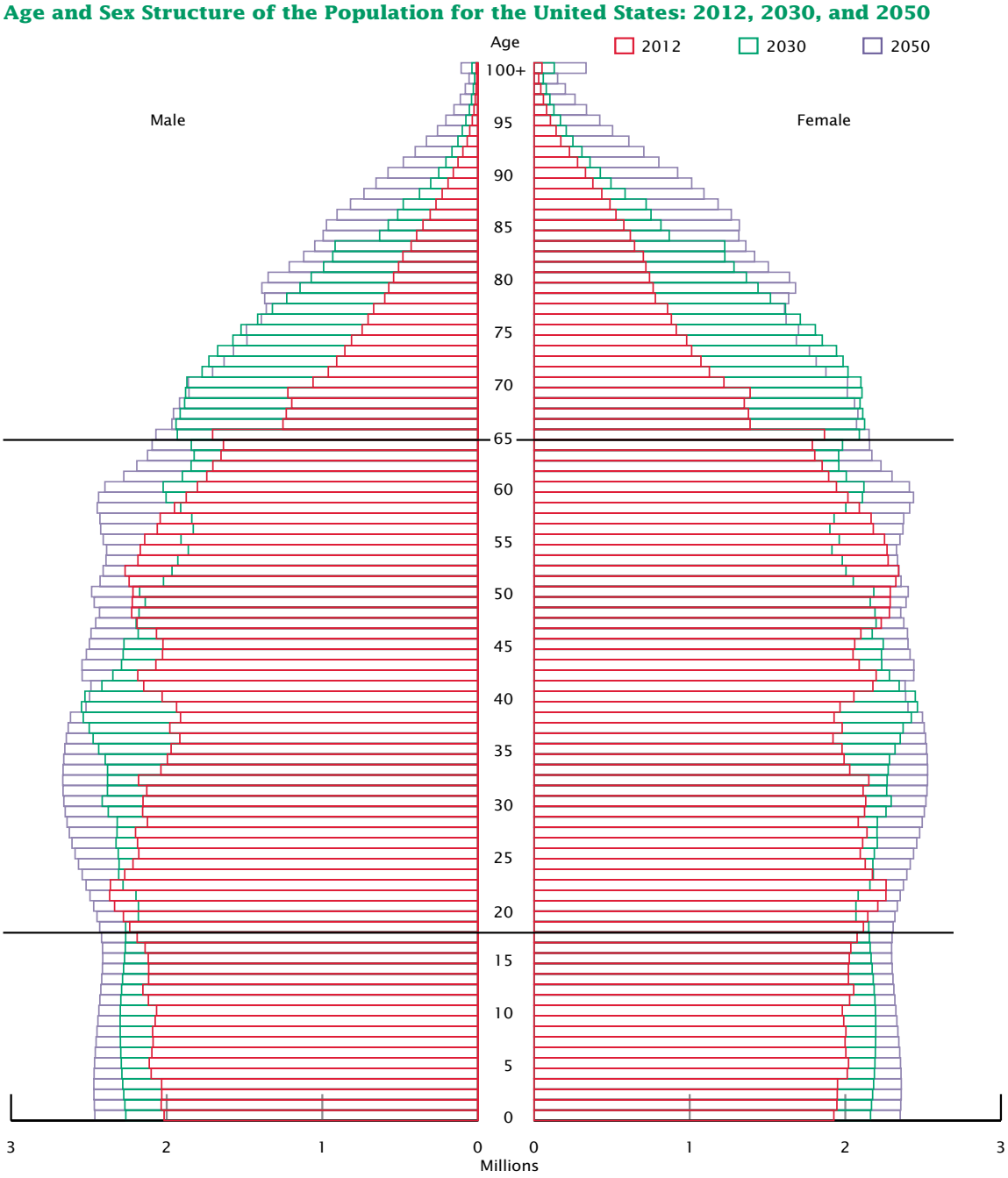
[13] Ortman, J. M., Velkoff, V. A., & Hogan, H. (2014, May 01). An Aging Nation: The Older Population in the United States. Retrieved May 11, 2017, from https://www.census.gov/library/publications/2014/demo/p25-1140.html

As shown in the table, longevity is generally increasing in all but a few of the categories. An aging population that enjoys increased longevity has serious implications for pension fund accounting assumptions. As detailed previously, pension plans make assumptions based on various factors, one of which is projected duration of payouts to beneficiaries, when calculating the total present value of plan liabilities. With these population trends, pension plans should expect the duration of payout schedules to increase per person, which will increase the present value of pension liabilities. Keeping all other factors constant, this increase may reduce the funded ratio of pension plans, in turn affecting required contributions and potentially solvency.

In addition to increasing longevity, another demographics issue facing pension plans is the growing proportion of retirees (i.e. beneficiaries) compared to current employees (i.e. contributors). The following graph from the U.S. Census Bureau visually depicts this shift in proportions:[14]

[14] Ortman, J. M., Velkoff, V. A., & Hogan, H. (2014, May 01). An Aging Nation: The Older Population in the United States. Retrieved May 11, 2017, from https://www.census.gov/library/publications/2014/demo/p25-1140.html

Figure 9. Age and Sex Structure of the Population for the United States: 2012, 2030, 2050



Source: U.S. Census Bureau, 2012 Population Estimates and 2012 National Projections.

This graph illustrates the trend towards a top-heavy ageing population. The implication of a growing proportion of retirees relative to active workers is that

pensions payouts will grow proportionally more compared to pension contributions. This may further reduce the funded status of pension plans, which will have to compensate by generating returns in excess of what they do now. This will only exacerbate the problem for plans that already fail to achieve the minimum required rate of return.

Governance issues present yet another challenge for pension funds. A study by KPA Advisory Services LTD identifies the major pension governance issues over the past 20 years.[15] In a survey administered to pension managers in 1997, 2005, and in 2014, five key issues were consistently ranked as the most prominent problems facing pension organizations. The first issue is uncompetitive compensation. It is hard to hire and retain good pension managers if they can make better money doing the same job elsewhere. The second issue is a lack of performance-based compensation within pension schemes. Investment managers have little incentive to exceed the minimal return expectations, and so are content to settle for the bare minimum. The third issue is a lack of authority among pension managers to retain or terminate investment managers. This lack of authority hinders pension managers from making strategic changes in the portfolio, which inherently contradicts their purpose in managing the pension scheme. The fourth issue is a lack of effectiveness among governing fiduciaries, and a failure to examine and improve their own effectiveness. Pension managers are rendered less effective when they are forced to comply with poor policies implemented by ineffective

[15] Ambachtsheer, K., & McLaughlin, J. (2015, January). How effective is pension fund governance today? And do pension funds invest for the long-term? Retrieved from https://www.top1000funds.com/wp-content/uploads/2015/02/Pension-Governance-and-LT-Investing.pdf

governing fiduciaries. The final issue is an ineffective selection, development, and termination process for governing fiduciaries. For example, a pension scheme for public school teachers may have retired teachers as governing fiduciaries. These individuals may not be well versed in investment practices, and therefore mandate unreasonable policies and practices for pension managers. Poor processes prevent this issue from being avoided or properly addressed, and schemes are left with ineffective governance and no way to change it. These five key issues illustrate both how these issues undermine pension scheme effectiveness as well as the recurring nature of these problems.

These issues are relevant to another governance challenge facing pension schemes, which is the cultivation of short-term and peer-sensitive investment environments. This is especially prominent in the context of poorly qualified governing fiduciaries. Funds conduct performance reviews of analysts and managers, and the pressure to achieve the necessary results for annual reviews may cause analysts and managers to forfeit long-term opportunities for short-term gains in order to improve "performance." For example, in the previous example of a pension scheme for teachers governed by retired teachers, the primary objective of the governing board may be to achieve the necessary minimum return for that year. The board has this goal because a failure to generate the minimum return may result in increased required contributions. For a public pension, these contributions come from taxpayer dollars and may require budget changes and increased taxes to meet the required contribution. The board then feels pressure to prevent this from happening, and uses this basis for evaluating pension manager performance.

Managers who meet or exceed the minimum return are safe, while those who underperform the minimum return are at risk of being terminated. As a result, pension managers may forfeit long-term investment opportunities in order to achieve short-term returns, which may undermine the long-term performance and solvency of the fund. The same KPA Advisory study mentioned earlier found a statistically significant difference between well governed and poorly governed schemes and their long-term investing success, attributing the difference in part to the effects of governance on short-term expectations.

4. Pension Fund Response

There are a number of ways that pension schemes can address these challenges. One option is to manage risk by changing the structure of the fund.[16] Funds can curtail benefits and reduce potential payouts, thereby reducing current liabilities and improving the funded status. They can also freeze benefits and maintain current pension obligations, but disallow new entrants. This stabilizes projected liabilities and initiates a long-term process for closing the fund. While both of these options reduce risk for the plan sponsor, they negatively affect workers and are unpopular among plan participants.

16 McDonald, M. G., & Gaul, S. E. (2016). Preparing For Pension Risk Transfer. Retrieved May 11, 2017, from http://research.prudential.com/view/page/rp/31207

Pension funds can also transfer risk onto other parties. A common method for transferring risk is to offer plan participants lump sum payments.[17] Instead of receiving annual payments during retirement, current plan participants can choose to receive a larger, single payment. This removes both assets and liabilities from the balance sheet and transfers risk onto the individual. This method, because it is voluntary, does not offer any guaranteed reduction in plan size. The effect is dependent on the number of plan participants who choose to accept.

Longevity insurance is another option for risk transfer.[18] When funds determine their liabilities, they make assumptions about how long retirees are expected to receive payouts. Funds can pay insurance premiums in order to set a limit on the number of years they pay in retirement. The insurance company then becomes liable for pension payouts in excess of the predetermined limit. For example, a fund could pay a premium so that it only pays for twenty years of retirement. The insurance company becomes liable for payouts beyond twenty years. This benefits the scheme by reducing the amount of potential payouts. It also reduces some of the uncertainty in projecting liabilities. Instead of speculating the duration of payouts per retiree, the fund has defined time limits.

Annuity purchase transactions are another form of risk transfer, similar to longevity insurance.[19] The plan sponsor negotiates with an insurance company to purchase annuities for a proportion of the plan participants, making the insurance

---

17 Gannon, J. (n.d.). Investment strategy implications of a pension risk transfer. Retrieved May 11, 2017, from https://russellinvestments.com/us/insights/articles/investment-strategy-implications-of-a-pension-risk-transfer

18 McDonald, M. G., & Gaul, S. E. (2016). Preparing For Pension Risk Transfer. Retrieved May 11, 2017, from http://research.prudential.com/view/page/rp/31207

19 Gannon, J. (n.d.). Investment strategy implications of a pension risk transfer. Retrieved May 11, 2017, from https://russellinvestments.com/us/insights/articles/investment-strategy-implications-of-a-pension-risk-transfer

company responsible for the payment of benefits. This differs from longevity insurance because instead of merely paying for a portion of retirement in excess of a predetermined number of years, the insurance company is responsible for the entirety of the payout. This benefits pension plans by reducing the balance sheet. The insurer benefits because the contract price is usually sold at a higher cost than the estimated value of the plan liabilities.[20]

Pension de-risking often preempts plan termination. In order to voluntarily terminate a plan, the plan sponsor must provide adequate proof to the PBGC that the plan is currently fully funded. The process is long and generally involves an initial voluntary lump sum distribution followed by group annuity contract purchases for the remainder of participants. The PBGC may also take action to terminate drastically underfunded plans, in which case termination is non-voluntary.

These methods by pension funds explain the general trend away from DB plans towards DC plans. Sponsors are offloading and terminating these plans because of the risk and liability, and with fewer DB options, more and more workers are relying on DC schemes to prepare for retirement.

For those plans that continue, one way to overcome these challenges is through reallocating investment portfolios towards higher-returning assets, as illustrated previously.

Private equity is one investment strategy through which pension plans have sought higher returns, and refers to investment in private companies that do not

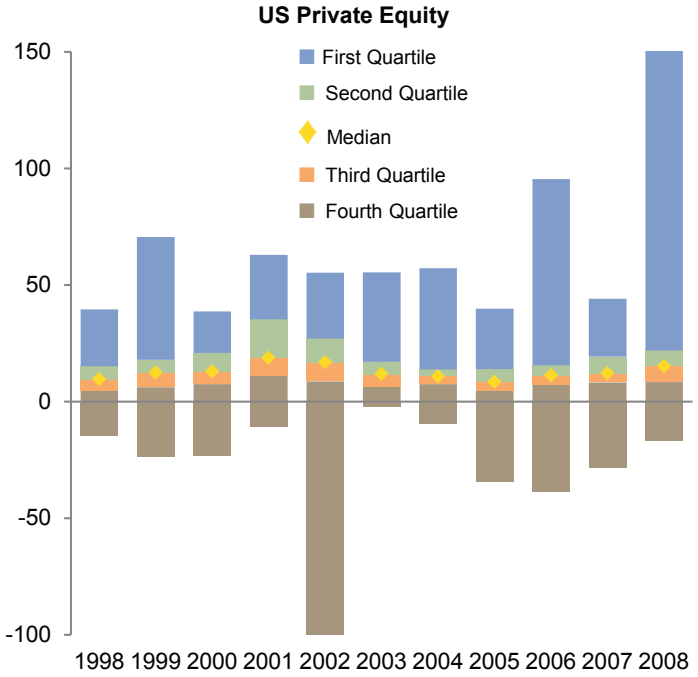
[20] Geddes, T. J., Howard, B. B., Conforti, A. G., & Steinmetz, A. R. (n.d.). Pension Risk Transfer. Retrieved May 11, 2017, from https://www.soa.org/research-reports/2014/Pension-Risk-Transfer/

trade on public exchanges.[21] Types of private equity strategies include venture capital, growth equity, buyouts, and certain debt-related and real asset vehicles. According to research from Cambridge Associates, private investments are projected to outperform traditional public equities over the long term, offering a solution to the low-yield problem faced by pensions. There is also a diversification benefit from having both public and private equities within a portfolio. Another benefit of private equity is reduced portfolio volatility, which affects funded-status volatility. Private investments, unlike publicly traded securities, are typically valued on a quarterly basis, which makes them less sensitive to short-term market volatility and may help smooth asset valuations.

Despite the appeal of higher returns, there is significant return dispersion, which indicates higher risk. The following graphic provides data for historical private equity return dispersion:

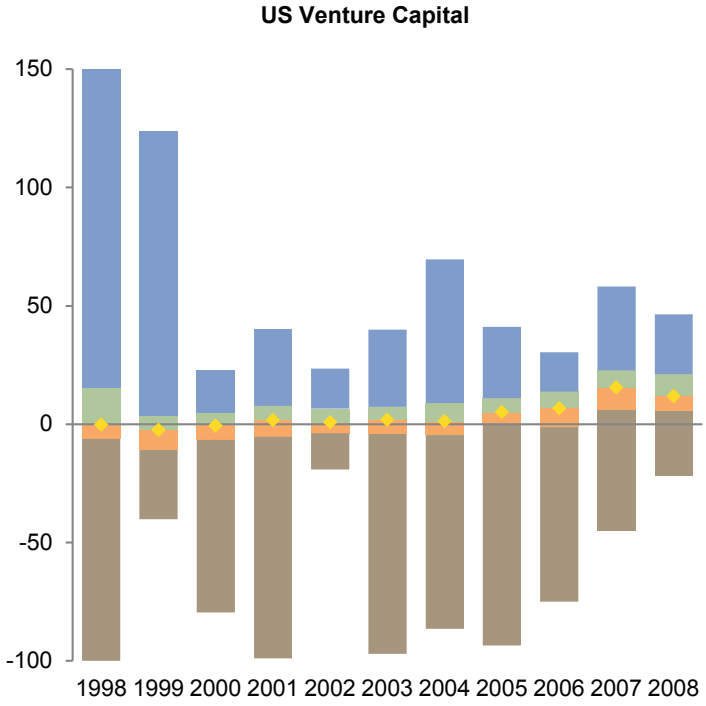
[21] Urdan, J., & Gelb, M. (n.d.). Private Investments: Filling a Pension's Return Void. Retrieved May 11, 2017, from https://www.cambridgeassociates.com/research/private-investments-filling-a-pensions-return-void/

Figure 10. Manager Dispersion in US Private Equity



Dispersion becomes even more apparent in specific niches within private equity. For example, the following graph shows dispersion specifically within venture capital:

Figure 11. Manager Dispersion in US Venture Capital[22]



These graphs illustrate the importance of planning and due diligence, as well as effective manager selection and portfolio construction, for private investments. Despite the upwards potential, there is significant downside risk.

Another challenge of private equity is its illiquidity and long-term investment horizon. Because it deals with private companies, which are not traded on public stock exchanges, it is more difficult to invest or offload an investment. In addition to the lack of exchange, private equity investments generally require a number of years to come to fruition.[23] A typical private equity timeline as depicted by Pacific Alternative Asset Management Company (PAAMCO) runs roughly ten years, and

[22] Urdan, J., & Gelb, M. (n.d.). Private Investments: Filling a Pension's Return Void. Retrieved May 11, 2017, from https://www.cambridgeassociates.com/research/private-investments-filling-a-pensions-return-void/

[23] Coupe, A. (2016). Assessing Risk of Private Equity - What's the Proxy? Retrieved May 11, 2017, from https://www.paamco.com/Publications/Pages/Perspectives/Assessing-Risk-of-Private-Equity---What's-the-Proxy.aspx

entails initial capital calling and investment periods. A private equity fund manager will solicit investments and accrue capital over the course of several years, and start to make investments. The investments, however, typically do not offer returns until the latter half of the investment period, usually around years five to ten. For pension plans, private equity investments require long-term commitment and keep capital locked up for the duration of the investment. As mentioned previously, governance issues in many pension plans make short-term returns a priority over long-term performance, which makes private equity a potentially difficult investment for plan managers who feel pressure to generate short-term results.

Another challenge with private equity investments is the fee structure.[24] Private equity funds typically have a fee structure very similar to other alternative asset strategies, with a common structure being a 2% management fee and 20% performance fee. To put this in the perspective of more common investment vehicles, the average fee for an equity mutual fund tends to be about 1.3-1.5%.[25] For pension plans struggling to generate returns, these high fees may act as a disincentive to invest. Especially in the context of high manager return dispersion within private equity, pension plans need to be sure that the high fees come with high returns.

A final challenge with private equity is complexity and transparency. According to Cambridge Associates, good private investment portfolios tend to have

---

[24] Coupe, A. (2016). Assessing Risk of Private Equity - What's the Proxy? Retrieved May 11, 2017, from https://www.paamco.com/Publications/Pages/Perspectives/Assessing-Risk-of-Private-Equity---What's-the-Proxy.aspx

[25] Hayes, C. A. (2017, March 29). Mutual Funds: The Costs. Retrieved May 11, 2017, from http://www.investopedia.com/university/mutualfunds/mutualfunds2.asp

anywhere from 15 to 30 managers.[26] Each of these managers can have anywhere from one to four active funds at any given time. Private equity funds also prefer to maintain more investments than fewer, because this reduces the impact of a single investment failure on the overall performance of the fund. This scope of operations, in conjunction with the more complicated nature of more complex investments like leveraged buyouts and venture capital, make private equity a more difficult vehicle to evaluate than simpler, more traditional investments. The lack of publicly available data on many private entities exacerbates the difficulty of evaluating private equity opportunities. Private companies are not required to file public financial statements, so the information is more difficult to obtain. The implication for pension plans is that private equity investments, while potentially more lucrative, require more resources and due diligence than other investments. This obstacle may be especially challenging for smaller pension schemes with fewer resources.

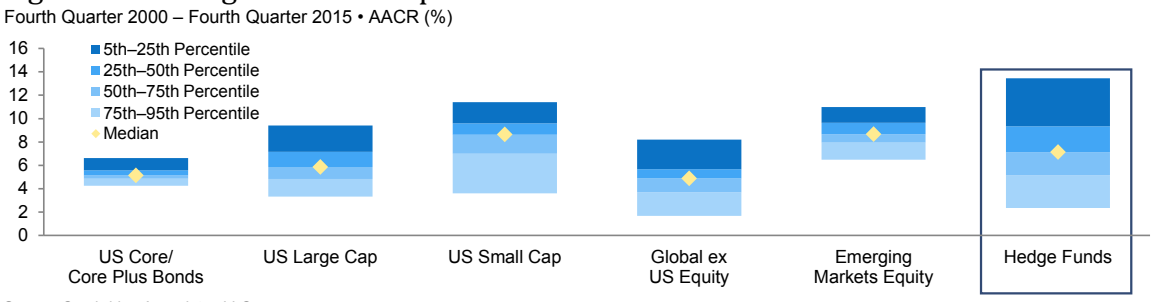
Allocation to hedge funds is another investment strategy through which pension funds have sought to overcome market challenges. Hedge funds are higher risk vehicles that may employ leverage to generate higher returns, but they vary greatly in their strategies and features. For example, some funds may emphasize low correlation and low beta while others emphasize strong alpha (i.e. returns in excess of market benchmarks). Despite the variety of funds within the realm of hedge

[26] Urdan, J., & Gelb, M. (n.d.). Private Investments: Filling a Pension's Return Void. Retrieved May 11, 2017, from https://www.cambridgeassociates.com/research/private-investments-filling-a-pensions-return-void/

funds, they have many of the same issues as private equity investments.[27] A common concern is the fee structure, which tends to be higher with hedge funds than with traditional investments. Another issue is limited liquidity. Some funds employ capital lock-up period to protect against poorly timed redemptions during long-term investment plays. Transparency can be another issue with hedge funds because of different regulations governing disclosures and filings. Leverage is a final concern because it creates the potential for more risk by amplifying both the upside and downside of investment returns.

Like private equity, hedge funds also tend to have higher return dispersion than traditional investments. The following graph compares hedge fund dispersion to various equity benchmarks:

Figure 12. Manager Return Dispersion[28]



As illustrated, hedge funds tend to have higher return dispersion than other equity investments. For pension schemes, downside volatility is a significant risk in the context of funded ratios and contributions. In bull markets, this volatility may tend

[27] Hedge Fund-ing the Pension Deficit. (2016, June). Retrieved May 11, 2017, from https://www.cambridgeassociates.com/research/hedge-fund-ing-the-pension-deficit/

[28] Hedge Fund-ing the Pension Deficit. (2016, June). Retrieved May 11, 2017, from https://www.cambridgeassociates.com/research/hedge-fund-ing-the-pension-deficit/

towards the upside, but in bear markets, this volatility may revert to the downside and hurt pension portfolios, especially if leverage is involved. Placing hedge fund returns in the context of general market performance, a research publication from Cambridge Associates asserts only about 5% of global hedge funds merit institutional capital investment because their returns are greatly a result of general market trends, not individual outperformance. For pension schemes, with clearly defined cash flows and liabilities, volatility and correlated returns are a risk that some funds may not be able to afford.

5. Conclusion

Pension funds are gradually moving away from DB plans because of the inherent risks and challenges. For those that maintain DB plans, asset allocations are trending more heavily towards equities and alternatives. These trends, especially in the context of regulatory burdens, governance issues, and low-yield environments, have driven pension schemes to assume greater risk in the pursuit of returns. As the market continues to be difficult to navigate, these trends may continue.

The problem with assuming greater risk in order to achieve the necessary returns is that it inherently undermines the core premise of pension schemes. Their purpose is to responsibly oversee contributed assets in order to provide long-term security in retirement for plan participants. Pension plans have clearly defined payout schedules and minimum required rates of return. Risk and volatility do not

contribute to the security of invested capital. In the context of regular cash outflows, pension schemes cannot afford irregular cash inflows. The pension market is positioned precariously, and while some plans may have the resources, expertise, and luck to successfully navigate the current market climate, not everyone can be a winner. Inevitably, there will be some losers. And in this case, unfortunately, losing will very tangibly harm retirees and their financial wellness.

Bibliography

Ambachtsheer, K., & McLaughlin, J. (2015, January). How effective is pension fund governance today? And do pension funds invest for the long-term? Retrieved from https://www.top1000funds.com/wp-content/uploads/2015/02/Pension-Governance-and-LT-Investing.pdf

Coupe, A. (2016). Assessing Risk of Private Equity - What's the Proxy? Retrieved May 11, 2017, from https://www.paamco.com/Publications/Pages/Perspectives/Assessing-Risk-of-Private-Equity---What's-the-Proxy.aspx

Gannon, J. (n.d.). Investment strategy implications of a pension risk transfer. Retrieved May 11, 2017, from https://russellinvestments.com/us/insights/articles/investment-strategy-implications-of-a-pension-risk-transfer

Geddes, T. J., Howard, B. B., Conforti, A. G., & Steinmetz, A. R. (n.d.). Pension Risk Transfer. Retrieved May 11, 2017, from https://www.soa.org/research-reports/2014/Pension-Risk-Transfer/

Global Pension Assets Study 2017. (n.d.). Retrieved May 11, 2017, from https://www.willistowerswatson.com/en/insights/2017/01/global-pensions-asset-study-2017

Hayes, C. A. (2017, March 29). Mutual Funds: The Costs. Retrieved May 11, 2017, from http://www.investopedia.com/university/mutualfunds/mutualfunds2.asp

Hedge Fund-ing the Pension Deficit. (2016, June). Retrieved May 11, 2017, from https://www.cambridgeassociates.com/research/hedge-fund-ing-the-pension-deficit/

McDonald, M. G., & Gaul, S. E. (2016). Preparing For Pension Risk Transfer. Retrieved May 11, 2017, from http://research.prudential.com/view/page/rp/31207

Munnell, A. H., & Aubry, J. (n.d.). The Funding of State and Local Pensions: 2015-2020. Retrieved May 11, 2017, from http://crr.bc.edu/briefs/the-funding-of-state-and-local-pensions-2015-2020/

Ortman, J. M., Velkoff, V. A., & Hogan, H. (2014, May 01). An Aging Nation: The Older Population in the United States. Retrieved May 11, 2017, from https://www.census.gov/library/publications/2014/demo/p25-1140.html

Pension Fund Portfolio Management. (n.d.). Retrieved May 11, 2017, from https://www.caia.org/content/curriculum-study-tools

Public Plans Data. (n.d.). Retrieved May 11, 2017, from http://crr.bc.edu/data/public-plans-database/

State Public Pension Investments Shift Over Past 30 Years. (2014, June). Retrieved May 11, 2017, from http://www.pewtrusts.org/en/research-and-analysis/reports/2014/06/03/state-public-pension-investments-shift-over-past-30-years

Urdan, J., & Gelb, M. (n.d.). Private Investments: Filling a Pension's Return Void. Retrieved May 11, 2017, from https://www.cambridgeassociates.com/research/private-investments-filling-a-pensions-return-void/