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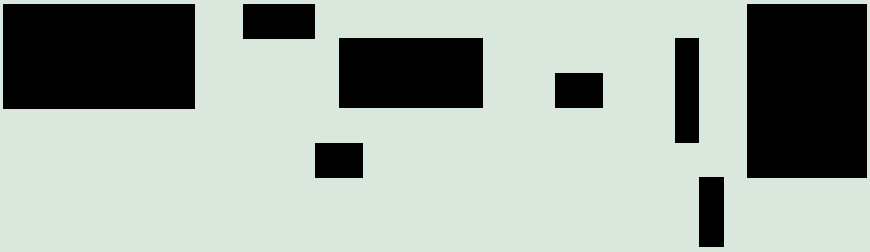


Insider

WTW Pension 100: Year-end 2017 disclosures of funding, discount rates, asset allocations and contributions

By Brendan McFarland

After remaining at roughly the same level for three years running, the aggregate funded status[1] of defined benefit (DB) plans in the Willis Towers Watson Pension 100 (WTW Pension 100)[2,3] gained roughly four percentage points in 2017, rising from 80.8% to 85.1%. While lower interest rates drove up liabilities, strong investment returns and large employer contributions pushed assets even higher.

This annual analysis is based on just-reported pension disclosures from the Securities and Exchange Commission (SEC) 10-K filings of 100 publicly traded U.S. sponsors of large pension plans whose fiscal years end in December.[4] We examine reported funding results, the discount rates used to measure liabilities, target asset allocation policies over time, investment returns and contributions from sponsors. Where applicable, historical values are shown for companies in the current WTW Pension 100 sample.

Among these WTW Pension 100 plans, the gap between liabilities and assets has widened substantially over the last 11 years. Between 2007 and 2012, funding dropped from an $81 billion surplus to a $295 billion deficit – the highest deficit in our analysis *(Figure 1)*. The following year, higher interest rates reduced plan liabilities – reversing a four-year

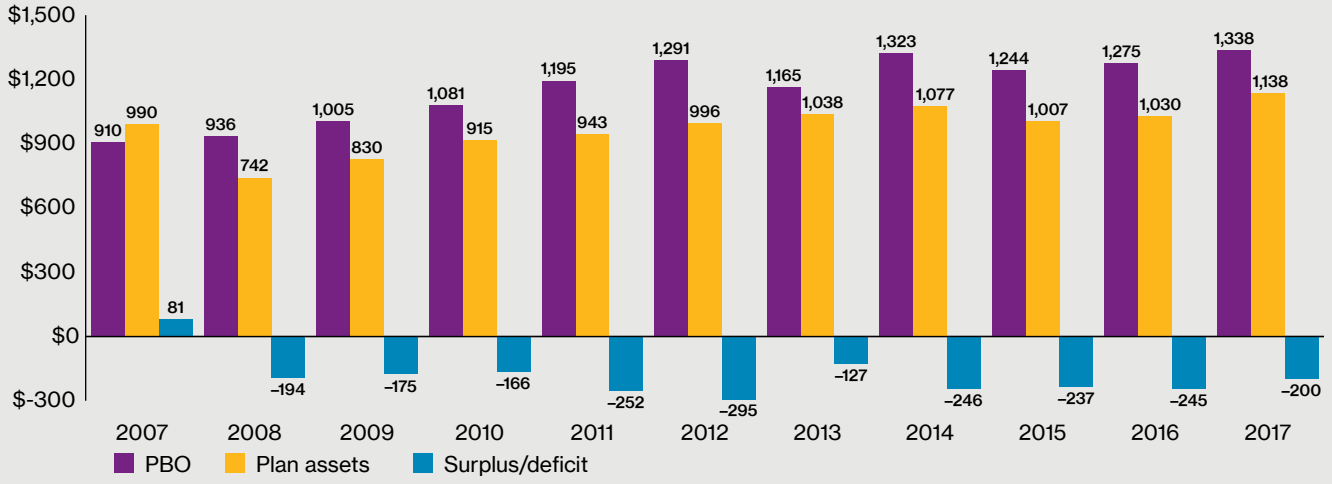
[1] The aggregate funded status is the ratio of (a) the sum of all assets to (b) the sum of all projected benefit obligations (PBO) for the 100 companies. Average funded status is calculated by averaging the ratio of (a) to (b) on an individual company basis.

[2] The 2017 WTW Pension 100 consists of sponsors of the 100 largest U.S. pension programs among U.S. publicly traded organizations, ranked by PBO at year-end 2016. For some companies the allocation between U.S. and non-U.S. is estimated.

[3] Pension liability values in 10-Ks also reflect nonqualified plans (which are usually not shown separately). An analysis of companies that disclose their qualified and nonqualified plans separately found that the funded status is typically eight percentage points higher without the nonqualified plan obligations because these plans are typically not funded.

[4] See "WTW Pension 100: Year-end 2016 disclosures of funding, discount rates, asset allocations and contributions," Willis Towers Watson *Insider*, April 2017.

Figure 1. **Aggregate funded status for WTW Pension 100 ($ billions), 2007 – 2017**



Source: Willis Towers Watson

trend – and assets grew, slicing the prior year's deficit in half. By year-end 2014, however, interest rate declines combined with the widespread adoption of more conservative mortality assumptions pushed aggregate pension deficits back up to $246 billion. In 2015, when interest rates rose and thus liabilities declined, returns were poor, while in 2016, returns were good but interest rates dropped back down. Funded status ended both years without much change.

By year-end 2017, while interest rates had dropped again, investment returns were well over expectations and contributions were the highest since 2012. Asset growth outpaced that of plan obligations, materially reducing the deficit for the first time in four years.

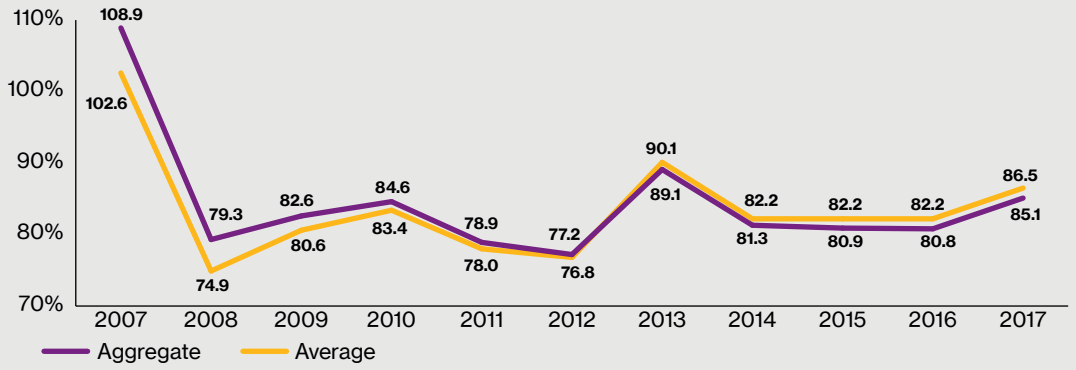
Funded status improves for first time in four years

Among WTW Pension 100 companies in 2017, plan obligations grew by 5%, while plan assets grew by 10%. The overall funding deficit decreased by roughly $45 billion from 2016 to 2017 – from $245 billion to $200 billion – an 18% reduction. Between 2012 (when the deficit was highest) and 2017, the deficit dropped by $95 billion.

Average funded status climbed to 86.5% by year-end 2017, while aggregate funded status was a slightly lower 85.1% *(Figure 2)*. A higher average than aggregate means that the largest plans were slightly less well funded than the others.

Figure 3 shows the distribution of funded status since 2007 and reflects some major shifts, including from 2016 to 2017. The number of companies whose plans were 90% funded or higher rose from 21 in 2016 to 40 in 2017, which was similar to 2013, when funded status was the second highest over the analysis period. There was much wider variance among plans whose funded status was less than 80%: 20% in 2013 versus 33% in 2017. Overall funding for WTW Pension 100 plans remains well under the funding levels witnessed before the financial crisis, when funded status exceeded 90% for 77 companies.

Figure 2. **Aggregate and average funded status for WTW Pension 100 ($ billions), 2007 – 2017**



Source: Willis Towers Watson

Figure 3. **Distribution of funded status for WTW Pension 100, 2007 – 2017**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
100% or more	**49%**	**4%**	**6%**	**7%**	**6%**	**5%**	**19%**	**6%**	**6%**	**7%**	**14%**
90% to 99%	**28%**	**11%**	**9%**	**17%**	**6%**	**8%**	**23%**	**16%**	**14%**	**14%**	**26%**
80% to 89%	**16%**	**17%**	**32%**	**37%**	**28%**	**25%**	**38%**	**32%**	**35%**	**31%**	**27%**
70% to 79%	**6%**	**29%**	**34%**	**29%**	**31%**	**34%**	**16%**	**36%**	**33%**	**32%**	**23%**
Under 70%	**1%**	**39%**	**19%**	**10%**	**29%**	**28%**	**4%**	**10%**	**12%**	**16%**	**10%**

Source: Willis Towers Watson

Figure 4 shows changes in funded status from 2016 to 2017. Funded status improved for 87 sponsors and worsened for 13. The funding increases were between 0.1 and 4.9 percentage points for a slim majority of sponsors (53%) and between 5.0 and 9.9 percentage points for 25 companies. Funded status increased by 10 percentage points or more in nine companies, owing to relatively large plan contributions during 2017 (explained later).

Discount rates drop again during 2017

Plan obligations climbed in 2017, partly due to a decline in the discount rates used to measure pension liabilities. From 2008 through 2012, discount rates fell every year – an accumulated decline of 235 basis points – before finally rising in 2013 *(Figure 5)*. Interest rates fluctuated between 2012 and 2015, but then fell in both 2016 and 2017. Over 2017, rates dropped an additional 48 basis points to 3.62%, the lowest discount rate in years. Over the first quarter of 2018, rates ticked back up nearly 35 basis points, helping to reduce PBO growth for plan sponsors so far this year.

Shift to more conservative investments resumes as funding improves

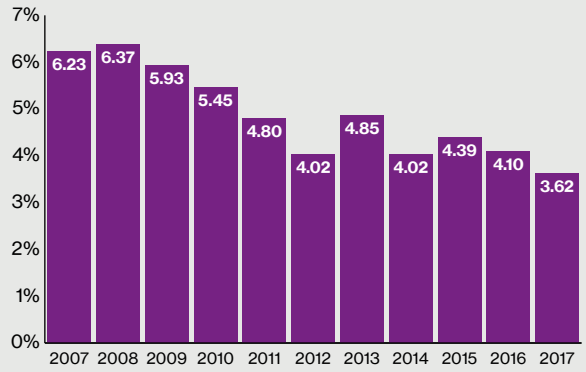
Over the past decade, there has been a gradual aggregate shift from public equities to fixed-income and alternative assets, reflecting growing interest in reducing investment risk, especially in limiting the volatility of plan liabilities *(Figure 6)*. Since 2009, the average target allocation to public equites has declined by 14 percentage points, while target allocations to fixed-income investments have risen by around 12 percentage points.

Figure 4. **Changes in funded status for WTW Pension 100, 2016 – 2017**

Magnitude of change in funded status	Number of companies	Average change in funded status for companies in column 2
10.0% or more	**9**	**15.6%**
5.0% to 9.9%	**25**	**7.0%**
0.1% to 4.9%	**53**	**2.6%**
0.0% or less	**13**	**–1.7%**
Total	**100**	**4.4%**

Source: Willis Towers Watson

Figure 5. **Average year-end discount rate assumptions for WTW Pension 100, 2007 – 2017**



Source: Willis Towers Watson

Figure 6. **Average target asset allocation percentages for WTW Pension 100, 2009 – 2018**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 (aggregate)	Percentage point change (2009 – 2017)
Public equity	**54.8**	**52.3**	**50.4**	**46.9**	**46.0**	**43.4**	**42.9**	**42.4**	**42.0**	**40.4**	**36.0**	**–14.4**
Fixed income	**33.8**	**34.7**	**35.9**	**38.8**	**39.4**	**42.0**	**42.7**	**43.3**	**43.5**	**45.3**	**46.0**	**+11.5**
Cash	**0.4**	**0.9**	**1.1**	**1.0**	**1.0**	**1.1**	**1.1**	**1.1**	**1.2**	**1.2**	**1.1**	**+0.8**
Real estate	**3.4**	**3.4**	**3.1**	**3.1**	**3.1**	**3.1**	**3.3**	**3.3**	**3.3**	**3.2**	**4.6**	**–0.2**
Other	**7.6**	**8.7**	**9.5**	**10.3**	**10.5**	**10.4**	**10.0**	**9.9**	**10.0**	**9.9**	**12.3**	**+2.3**

Source: Willis Towers Watson

Figure 7. **Returns on major equity* and bond indexes in 2017**

Equity	One-year return
S&P 500	**21.8%**
Russell 2500	**16.8%**
MSCI EAFE	**25.0%**
Bond	
Barclays Aggregate	**3.5%**
Barclays Long Treasury	**8.5%**
Barclays Long U.S. Credit	**12.2%**

*Values displayed for Total Return Indexes
Source: Bloomberg and Barclays Live

After substantial shifts to fixed income between 2009 and 2014, the movement slowed for the next few years. In 2018, fixed-income holdings ticked up again by roughly 2%. Out of the 93 companies that reported target asset allocation strategies for 2017 and 2018, 14 reduced their target equity allocation by five percentage points or more, with an average reduction of 12 percentage points. At these 14 companies, on average, funding rose by eight percentage points versus four percentage points for the overall sample, mostly due to larger contributions relative to plan assets (8% versus 5%, respectively). As some companies are accelerating pension funding (explained later in this analysis), these recent reallocations to fixed-income could be the result of higher funding levels triggering or accelerating de-risking strategies, such as glide paths, which reduce equity exposure as the plan moves closer to full funding. Only two sponsors increased their equity exposure by five percentage points or more, and their average increase was six percentage points.

Similar to past studies, aggregate results (weighted by plan assets) differ from average results for 2018, which suggests that allocations vary by plan size. On an aggregate level, sponsors hold less public equity and more fixed-income and alternative investments, indicating the largest plans in this analysis have more fixed-income and alternative investments than the smallest.

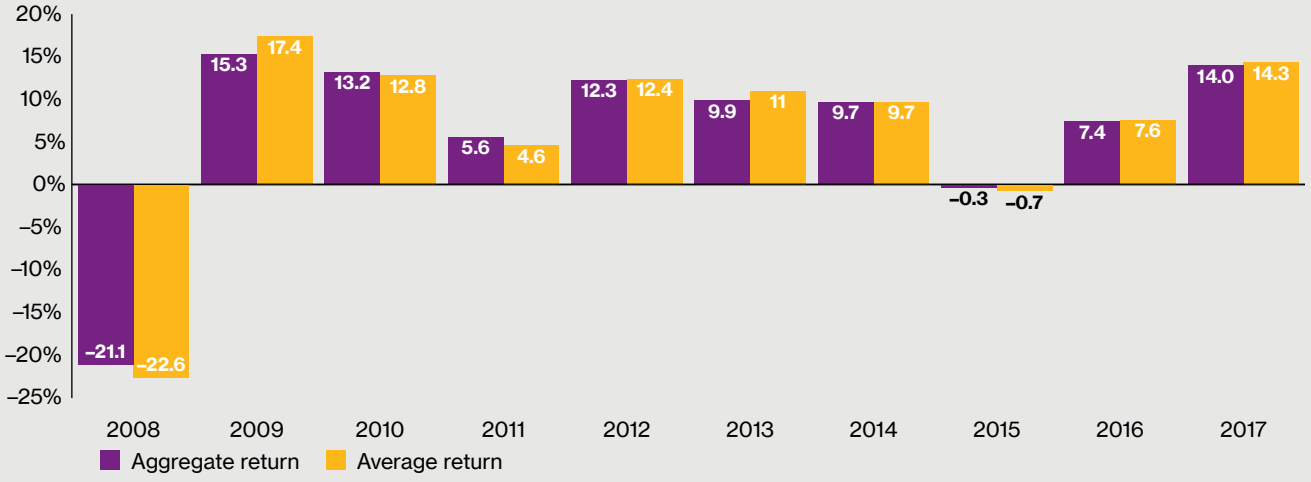
Investment returns were strong over 2017

Equity markets realized outstanding performances over 2017, and bond returns were positive as well. Equity market gains ranged from 17% to 25% over the past year *(Figure 7)*. Additionally, returns for corporate long bonds – often used in liability-driven investment (LDI) strategies – were roughly 12%, which offset the interest rate decline (also based on high-quality corporate bonds).

In 2017, WTW Pension 100 investment returns averaged 14.3% (aggregate returns were 14.0%), which was twice expectations of just under 7% for these companies *(Figure 8)*.

Over the last three years, annualized returns for WTW Pension 100 sponsors were 6.9%, right around expectations. During the last 10 years, annualized investment returns

Figure 8. **Investment returns for WTW Pension 100, 2008 – 2017**



Source: Willis Towers Watson

averaged only 6.5%, slightly under expectations, largely because of significant losses during the 2008 financial crisis. On average, these plan sponsors outperformed expectations in seven of the last 10 years.

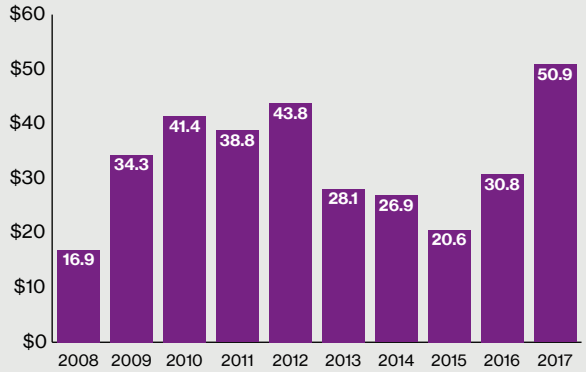
Sponsors make largest contributions in five years

Plan sponsors' 2017 contributions were the largest since 2012 *(Figure 9)*. Aggregate 2017 contributions were higher than those made before the 2012 Moving Ahead for Progress in the 21st Century Act (MAP-21) and follow-on legislation significantly reduced minimum required contributions. WTW Pension 100 companies contributed $50.9 billion for 2017 – up 65% from 2016. Since 2008, sponsors in this analysis have contributed roughly $333 billion to their pension plans.

Aggregate contributions were almost three times aggregate service cost[5] – which was $18.4 billion in 2017.

While aggregate contributions increased substantially from 2016 to 2017, only slightly more than half of these sponsors contributed more in 2017 than in 2016 *(Figure 10)*. Higher aggregate contributions in both 2016 and 2017 were mostly due to higher-than-expected contributions from a handful of large plan sponsors. These might be a response to rising Pension Benefit Guaranty Corporation premiums, the low cost of borrowing, growing interest in de-risking strategies and a desire to prefund future contributions. The Tax Cuts and Jobs Act reduced federal corporate tax rates starting in 2018 and, as a result, increased the relative value of the pension tax deduction for 2017.[6] Thirteen companies contributed more than $1 billion to their pensions last year, for a total of $9.0 billion in 2016 and $33.9 billion in 2017.

Figure 9. **Plan contributions from WTW Pension 100 ($ billions), 2008 – 2017**



Source: Willis Towers Watson

Generally, companies whose funded status increased substantially during 2017 made large contributions to their plans (as discussed earlier). Among companies whose funding levels rose by more than 10 percentage points, the average ratio of plan contributions to plan assets was 19.5%. To put these sizable contributions in perspective, the average ratio of contributions to plan assets was 4.8% for the entire WTW Pension 100 in 2017.

Higher aggregate contributions in both 2016 and 2017 were mostly due to higher-than-expected contributions from a handful of large plan sponsors.

[5] Service cost refers to the present value of the projected retirement benefits earned by plan participants in the current period.

[6] The tax deduction for pension contributions was higher under former tax law. Many employers may still make contributions through some part of 2018 and take a tax deduction at the higher corporate tax rates.

Figure 10. **Plan contributions ($ billions) from WTW Pension 100, 2016 versus 2017***

	Number of companies	Aggregate contributions in 2016	Aggregate contributions in 2017	Average change in funded status
Larger contribution in 2017	**54**	**$14.0**	**$44.8**	**5.8%**
Same level of contributions in 2016 and 2017	**8**	**$0.5**	**$0.5**	**3.3%**
Smaller contribution in 2017	**36**	**$16.3**	**$5.6**	**2.6%**

*Two of the eight sponsors that contributed the same amount in 2016 and 2017 made no plan contributions in either year.
Source: Willis Towers Watson

Slow and steady decline of plan obligations continues

Pension obligations (before settlements and changes in interest rate, mortality or other assumptions) have been declining for some time, as the benefits paid out of these plans are overtaking service and interest costs, which increase the PBO. In 2017, for example, the WTW Pension 100 paid out $77.8 billion in retirement benefits, while service and interest costs totaled $65.7 billion. This can be attributed to the number of pension freezes and closes over the past decade, which reduce service cost over time.

In addition, sponsors are increasingly turning to de-risking strategies, such as bulk lump sum offerings and annuity purchases, which reduce the PBO.

Conclusion

Very favorable investment returns combined with substantial plan contributions offset the higher PBO caused by yet another year of declining interest rates. At 85%, aggregate funding levels were (modestly) higher than they have been since 2013.

The uptick in funded status is welcome news for plan sponsors. Over the first three months of 2018, the interest rates used to measure plan obligations have climbed 35 basis points, potentially driving funding levels even higher. If sponsors make very large contributions again in 2018, and equity and bond returns rebound from first-quarter performances that were well below expectations, plan sponsors could be in for another year of funded status gains.

Sponsors are increasingly turning to de-risking strategies, such as bulk lump sum offerings and annuity purchases, which reduce the PBO.

Many plan sponsors have already digested the new tax law and the implications for their benefit plans, and some sponsors indicated they would accelerate contributions in early 2018 in response. Employers should consider their broader pension management strategy as they make that evaluation, which could mean reviewing their investment strategy or implementing pension de-risking strategies, such as an annuity purchase.

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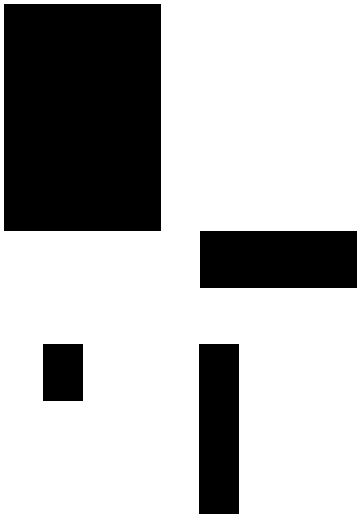

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