Discount rates fall and shortfalls increase for the $20 billion club in 2016

The $20 billion club – which consists of 19 U.S. publicly-listed corporations with the largest pension liabilities – tells us a great deal about what's happening at corporate pension plans in general. At the start of financial year 2016, the combined pension deficit of these corporations was $177bn, with assets totaling $704bn and liabilities of $881bn. 2016 saw both assets and liabilities increase slightly and the combined deficit rose by $12bn, ending the year at $189bn.

Each corporation in the $20 billion club had worldwide pension liabilities in excess of $21bn at the end of 2016. Worldwide funded status varied from 67% to 96% and the shortfall of assets below liabilities ranged from less than $1bn to more than $30bn.

Exhibit 1 shows the club's experience since 2004. In 2007, aggregate pension assets exceeded liabilities by some $53bn, but 2008's turmoil put an end to that and by 2012 the deficit had reached more than $200bn. The deficit at the end of financial year 2016 was $189bn.

The main reason for the increase in the pension deficit in 2016 was a fall of roughly 0.25% in the discount rate used to value liabilities. The impact of the fall in the discount rate was offset somewhat by investment returns a little above expectations and by plan sponsor contributions slightly above the value of new benefit accruals.

2016's experience was almost an exact mirror image of 2015, a year in which discount rates rose, investment returns were disappointing and contributions were slightly below the value of new benefit accruals.

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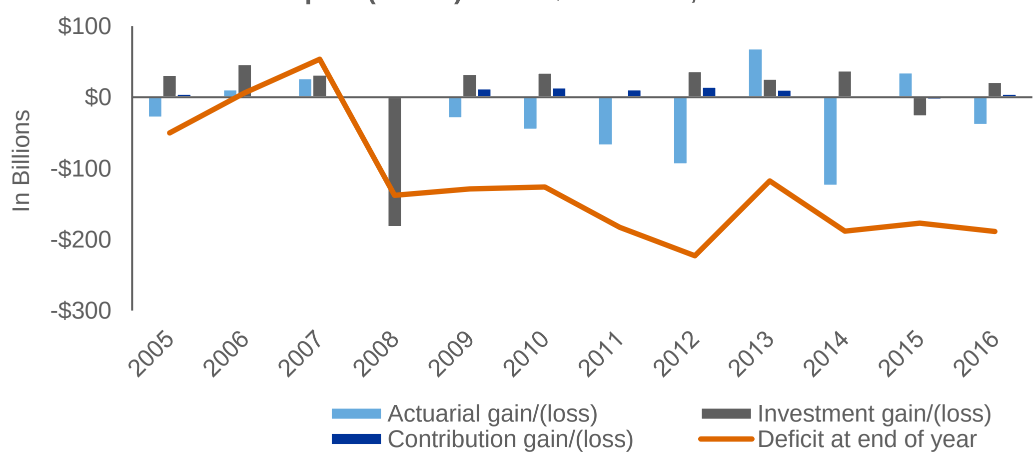
Exhibit 1: Combined surplus/(deficit) of the $20bn club, 2004-2016



Source: Russell Investments, Corporate 10-K filings.

Exhibit 2: How the combined worldwide pension assets and liabilities of the $20 billion club developed in 2016

LIABILITIES	(IN $BILLIONS)
Liability (Projected Benefit Obligation) at Start of Year	880.6
Accrual of new benefits (Service Cost)	13.7
Benefits paid	-49.6
Interest payable on liability (Interest Cost)	31.9
Impact of change in interest rates and in actuarial assumptions (Actuarial loss)	38.7
Miscellaneous other	-13.5
Liability (Projected Benefit Obligation) at End of Year	901.8

ASSETS	(IN $BILLIONS)
Assets (Fair Value) at Start of Year	703.9
Employer contributions	18.2
Benefits paid	-48.4
Investment return on plan assets	53.4
Miscellaneous other	-14.1
Assets (Fair Value) at End of Year	713.0

SURPLUS/(DEFICIT)	(IN $BILLIONS)
Excess (Shortfall) of assets below liabilities at Start of Year	-176.7
Excess of employer contributions over service cost	4.5
Investment return less interest cost and actuarial loss	-17.2
Miscellaneous other	0.6
Excess (Shortfall) of assets below liabilities at End of Year	-188.8

Source: Corporate 10-K Filings, Russell Investments

Interest rates were again the dominant driver of pension plan experience

Exhibit 2 breaks down the overall net improvement in funded status.

As has been the case in most recent years (2008 being a notable exception), the single biggest factor driving plan experience has been interest rates. The median discount rate used to value liabilities fell from 4.4% to 4.1%, and this was the main reason for the actuarial loss of $38.7bn shown in exhibit 2. (Also included in the actuarial loss number is the impact of changes to the mortality assumptions at some plans, which served to reduce liabilities.)

Investment returns were solid, ranging from 4.7% to 12.0% for the 18 corporations that report on a calendar year basis[1] (the variation from case to case depending mainly on asset allocation policy.) This was more than enough to cover the interest cost of $31.9bn, which represents the growth in liabilities resulting from the passage of time.

Contributions: a tough decision

Even though there was a substantial net deficit of assets below liabilities, contributions by plan sponsors in 2016 were only slightly above service cost (i.e. the value of new benefit accruals.) In 2015 they were slightly below.

As usual, there was significant variation between the contribution policies adopted. At 13 corporations, 2016 contributions were more 2015's, the others contributed less than in 2015. Roughly half made discretionary contributions to their U.S. plans in 2016, and half did not.

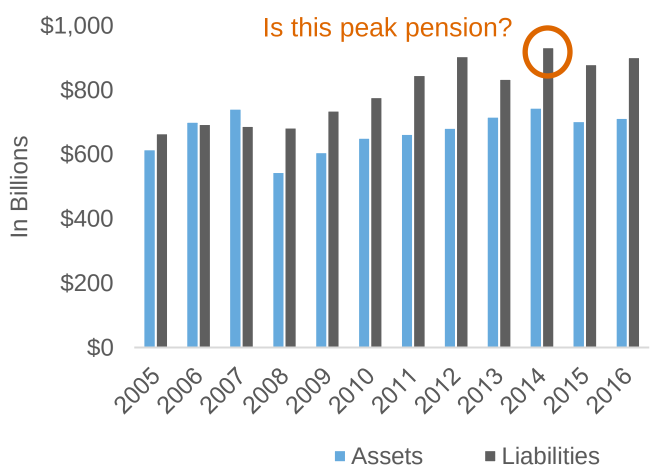
We have written elsewhere – for example Owens (2015(b)) and Collie (2016(c)), (2017) – how a minimum contribution policy is becoming less viable for U.S. plans as a result of increases in PBGC variable rate contributions. This leads us to expect that sponsors will increasingly choose to make discretionary contributions above the required minimum, in order to reduce their funding shortfalls.

For example, Federal Express announced in December an extra $1bn in discretionary pension contributions, to be made in 2017 and financed by debt issuance. GM made a similar move ($2bn in their case) in 2016.

A system that may be past its peak

Benefit payments in 2016 exceeded the sum of new benefit accruals and interest cost by roughly $4bn. This means that the overall trend in the total liability value is one of decline (before taking account of the effect of interest rate changes and miscellaneous flows).

Exhibit 3: 2014 may prove to be peak pension



[1] Federal Express, which uses a May year end for reporting, experienced a lower investment return due to weaker markets over that period.

As interest rates fell in 2014, and as most corporations adopted new mortality assumptions for their U.S. plans, total liabilities at the end of 2014 reached a high of $933bn. Despite the drop in discount rate in 2016, the year-end liability of $902bn remains below that high point. Unless there is a substantial fall in interest rates, 2014 may prove to be "peak pension," the point at which DB plan liabilities reached their high.

Even if total liabilities are past their peak, total pension assets may continue to grow, as steps are taken to address the $189bn deficit. With 2016 total assets less than 5% below 2014's level, strong investment performance in 2017 could see a new high.

Pension expense update

As always, it is with reluctance that I move from the relative simplicity of the impact of pension plans on the corporate balance sheet to the more complex and opaque income statement calculations. It is generally difficult to identify broad trends or to make meaningful comparisons between corporations, because accounting policy choices affect reported results. 2016's experience highlights how large the impact can be.

The total net periodic pension cost for the 19 corporations rose in 2016 from $21.5bn to $22.2bn. The pattern varied greatly from case to case, however, depending on the approach taken to (a) the amortization of gains/losses and (b) selection of a yield curve for service and interest cost calculations. Six corporations mark gains and losses to market to varying degrees, and nine[2] use a full yield curve approach for pension expense calculations (for eight of these, 2016 was the first year they did so.)

Marking to market tended to result in a higher pension cost in 2016 as the impact of market factors (such as the fall in discount rate) was recognized more quickly. For example, UPS's pension cost included a marked-to-market actuarial loss of $2.6bn, which was more than 6% of their year-end liability value. The total loss recognized by the six corporations using a mark-to-market approach was $9.9bn, approximately 4% of year-end liability value. (This includes a relatively small loss recognized by Honeywell, which only marks to market gains and losses outside a corridor.) The loss recognized by the 13 corporations who do not mark to market averaged approximately 2% of their liability value.

The use of a full yield curve approach led to lower pension cost in 2016, as will generally be the case when short term interest rates are below longer term rates. The effect in 2016 for those corporations using a full yield curve was an average reduction of roughly 15% in service cost plus interest cost combined.

Membership of the $20 billion club

The nineteen corporations who make up the $20 billion club in this update are:

1. AT&T
2. Boeing
3. Dow Chemical
4. E.I. du Pont de Nemours
5. Exxon Mobil
6. Federal Express
7. Ford
8. General Electric
9. General Motors
10. Honeywell
11. IBM
12. Johnson & Johnson
13. Lockheed Martin
14. Northrop Grumman
15. Pfizer
16. Raytheon
17. United Parcel Service
18. United Technologies
19. Verizon Communications

When the club was introduced in 2011, it consisted of the 16 corporations with liabilities in excess of $20bn at that time. It was expanded to 19 members in 2012 and to twenty in 2015. For this year's update, Hewlett-Packard has been excluded, as a re-structuring of the corporation split the previous $33 billion plan into an HP Inc plan of around $13 billion and a Hewlett Packard Enterprise plan whose liabilities (around $20 billion) lie almost entirely outside the U.S.

To replace Hewlett-Packard, future updates will include 3M, which had $23 billion of liability at the end of 2016.

[2] A tenth, Pfizer, uses this approach for its international plans only.

RELATED READING

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AUTHOR: Bob Collie

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