

January 5, 2018
From: Paul Kende
To: DuPont Retirees Chapter Members

Financial Status of the DuPont Pension Plan

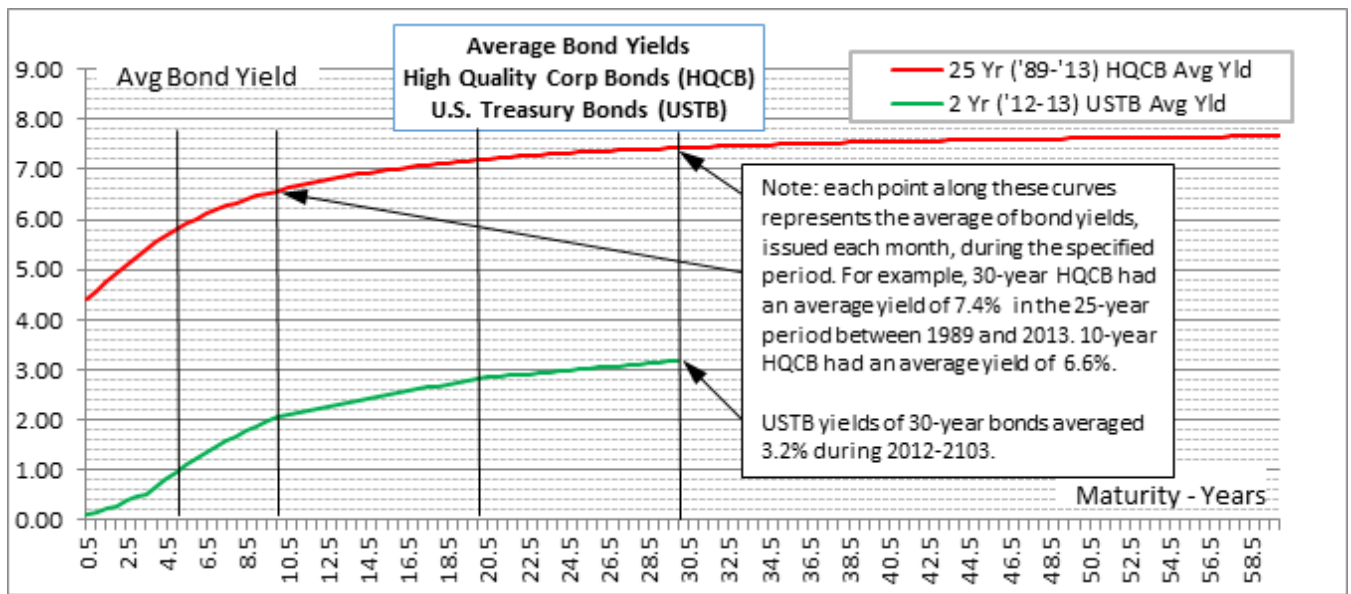
The key official documents, reporting on the status of the DuPont Pension Plan, are the year-end, audited 10K Filings with the SEC, the Annual Funding Notice (AFN) published in April of each year, and the 5500 Reports filed with the Department of Labor each October. Aligning, interpreting and understanding these documents are difficult. The purpose of this note is to

1. provide some explanation of the key financial concepts and mechanisms,
2. facilitate understanding and assessment of the DuPont Pension Plan's financial status and various questions about them, and
3. draw some conclusions at the end.

A. General Pension-Related Financial Concepts

To be able to measure the adequacy of a pension plan to meet its obligations over many years in the future, these obligations are represented by their Present Value. Calculations of Present Values require the use of Discount Rates, which in turn, are based on the yields provided by Corporate or U.S. Treasury Bonds.

The graph below shows two bond yield curves for a wide range of maturities. The red line is the 25-year average yield curve of High Quality Corporate Bonds from 1989-2013, and the green line is the 2-year average yield curve for US Treasury Bonds – which offer lower yields but with less risk. These graphs are based on the yield data provided by the US Treasury. Naturally, the “last” 25-year average yield curve would shift slightly each year.



The Discount Rate used to calculate the Present Value of future pension obligations, is either the yield value from a yield curve at a particular maturity, or the average yield over a selected maturity segment.

Discount Rates in the past were conservative, using the 2-year average U.S. Treasury Bond yields. However, the 2012 MAP-21 legislation permits pension plan sponsors to use the much higher 25-year average corporate bond yields. The use of higher yields lowers the Present Value of future benefit obligations, and therefore reduces the difference between assets and obligations, which then reduces the required pension plan contributions. For this reason, the MAP-21 legislation is also referred to as “Pension Funding Relief”, put in place by Congress to ease the minimum required pension plan contributions, in the low interest environment after the 2008 financial crisis – in 2015, MAP-21 was extended until 2020.

In addition to Yield Curves and Discount Rates, the actuarial assumptions required to calculate the Present Value of Pension Obligations, include time in retirement, projected salary increases of vested employees, and the life expectancy of Participants – and all these factors vary with time. In particular, the new mortality tables, just released by the Internal Revenue Service, indicate increased life expectancies, which will likely increase Pension Plan funding liabilities, minimum required sponsor contributions and PGBC premiums.

B. Assessment of Pension Financial Status Extracted From DuPont’s AFN, 5500 and 10K Reports

I have compared DuPont’s financial reports in detail, for the 2012-16 Plan Years. The summary of the comparison is shown in the table below for 2016 only. The AFN and 5500 Reports refer to the US Pension Plan only, while the 10K is a comprehensive and global financial report, from which I extracted the US Pension Plan-related data for comparison.

DuPont US Pension Plan Financial Summary	US Pension Plan @ Start of Year 2016				Definitions
	AFN Apr '17 MAP- 21	AFN Apr '17 Non- MAP	5500 Oct '17	10K Feb '17	
Key Pension Parameters (as named in various reports)					
Net Assets/Available for Benefits/Fair Value - \$M	15,162	15,162	14,477	14,400	
Liabilities/Obligations/Funding Target - \$M	16,627	19,818	16,627	21,062	=Assets-Shortfall
Short Fall/Funded Status - \$M	-1,465	-4,656	-1,466	-6,662	=Assets-Liabilities
Funding Target Attainment % /FTAP/Funding Level -%	91.19	76.51	91.18	68.37	=Assets/Liabilities

The primary variables are Assets and Liabilities. Shortfalls and Funding Levels are either directly stated in the various reports, or derived from them (blue font) through the simple

subtraction or division formulas indicated in the definitions column. The table shows significant differences among the reports, as discussed below:

- The big differences in Pension Obligations, Liabilities and Funding Levels, as shown for the AFN/MAP-21 and the AFN/Non-MAP-21, result directly from the use of the 2-year average US Treasury Bill, vs. the 25-year average Corporate Bond yields, for investment calculations, as discussed on page 1.
- The AFN and 5500 reports show actuarial asset values (which are average market values at 3 points, over 2 years) and average bond yield rates. However, the 10K reports are based on the Fair Market Value of Pension Assets and the bond yield, without averaging – which can be higher or lower than the actuarial values shown in the other reports. In addition, the 10K report includes the projected increase in pension obligations, due to employee pay growth, which the other reports do not include (this difference will disappear after the full pension freeze takes effect in late 2018). For these reasons the 10K report is not directly comparable to the 5500 and the AFN reports.
- The table above shows the Pension Plan status at the start of 2016, for which we have full data. The shortfall at the start of 2016 was \$6.6 billion, as stated in the Feb, 2017 10K report. In May of 2017, DuPont made a major, \$2.9 billion contribution, going well beyond the \$230 million minimum requirement, both strengthening the plan and ensuring higher tax deductions, before corporate tax rates dropped for 2018. This Contribution adds to any Pension Plan Credit Balance, and is to be used to satisfy future minimum contribution requirements. Although these funds are locked into the Pension Trust, they do not raise the funding level as shown in the AFN and 5500 reports, because any Credit Balance is subtracted from Assets before that calculation; however, the contribution should be reflected in the funding level shown in the next 10K report in February 2018. In any case, the Plan is still significantly underfunded.

C. Conclusions

Accepting that all four views accurately reflect the Pension Plan's financial status for different purposes, what is the most appropriate approach to assess the plan from retirees' viewpoint? Using long-term average corporate bond yields to determine the present value of future obligations (i.e. MAP-21), is reasonable because the pension payout is also over a long time-frame. On the other hand, the Pension Plan is for the benefit of older, retired people, by definition; therefore, it is also appropriate to use the traditional, lower yield, but more secure USTB – based planning. In addition, it is important to recognize the fully projected future liabilities of the Pension Plan. Considering all these factors, I believe the most appropriate retiree vantage point for assessing the security of our DuPont Pension Plan, is the one afforded by the 10K SEC report, which shows \$6.6 B underfunding on 1/1/16. The \$2.9 B contribution in May, 2017, should cut the underfunding in half and raise the funding level correspondingly, in the February 2018 10K report.

Your comments and questions are always welcome, Paul Kende paul.kende@gmail.com