



Pensions: Enterprise Value, Valuation Multiples, and Bizarro World Accounting



How to Make the Most Confusing Topic Ever
Even More Confusing

Pensions: The Crash Course

If you want this tutorial in writing, along with screenshots, the Excel examples, and the company documents, go to this URL
(pinned as the 1st comment):

<https://breakingintowallstreet.com/kb/equity-value-enterprise-value/unfunded-pension-liabilities/>

Pensions: The Short Version

- **Defined-Benefit Pension Definition:** Employee works at a company for a certain number of years, and **after they retire**, the company promises **specific payments** to them based on their years of employment and average salary
- **EX:** Monthly Pension Check = $1\% * \# \text{ Years of Employment} * \text{Average Monthly Salary}$
- **EX:** $1\% * 20 \text{ Years} * \$10\text{K} / \text{Month Salary} = \$2\text{K} / \text{Month}$
- **Purpose:** Encourage long-term employment, make up for lower salaries, and “take care of” retirement



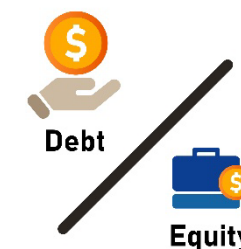
Pensions: The Short Version

- **Point #1:** Only “Defined Benefit” pensions that promise to pay specific amounts to employees matter; 401(k) plans and similar “Defined Contribution” plans do not factor in
- **Point #2:** In TEV, add the *Un(der)funded Portion*, i.e., $\text{MAX}(0, \text{Pension Liabilities} - \text{Pension Assets})$, and multiply by $(1 - \text{Tax Rate})$ if contributions are tax-deductible
- **Point #3:** Make sure that the **Pension Service Cost** is deducted in metrics like EBIT, EBITDA, and UFCF; do **not** deduct the Financial Components (Interest, Expected Return, various Amortization lines, etc.)



Pensions: The Short Version

- **WHY:** The Unfunded Pension counts as a “Debt-like liability” because *the employees* act as “investors”
- **WHY 2:** Unfunded Pensions tend to imply that the company will have to *raise additional outside capital* in the future
- **Financial Components:** These correspond to the *Un(der)funded Portion* and the associated costs, from interest to gains and losses on the assets required to fund it
- **So:** Add the Unfunded Portion in TEV and *exclude* Finance Costs from metrics that pair with Enterprise Value



$$\frac{x}{y}$$

Pensions: The Short Version

In my view, this is all you need to know
for **entry-level interviews**.

Yes, pensions get a lot more complicated,
but questions about specific accounting
points and advanced adjustments are
unlikely.

Pensions: The Short Version

Pensions are more of an “on the job” topic because automation tools like Capital IQ frequently **get them wrong or ignore them.**

They’re also **more important** if you work with “old school” companies (industrials, manufacturing, etc.).

Pensions: Lesson Plan

- **Part 1:** Sample Calculations for Michelin **5:53**
- **Part 2:** The Bizarro World of Pension Accounting **9:06**
- **Part 3:** Pensions in a DCF and Other Adjustments **12:56**

Part 1: Sample Calculations for Michelin

- **Step 1:** Start by searching for terms such as “pension” or “plan assets” and find the **all-inclusive numbers** (normally only shown in the **annual filing/report**)
- **Step 2:** If Total Pension Liabilities – Total Pension Assets is positive, add it, and multiply by $(1 - \text{Tax Rate})$ since contributions *are* tax-deductible in France
- **Step 3:** Search for the “Service Cost” and make sure it’s deducted in Operating Income, but that the Financial Components are not (a few small problems here, but nothing major)



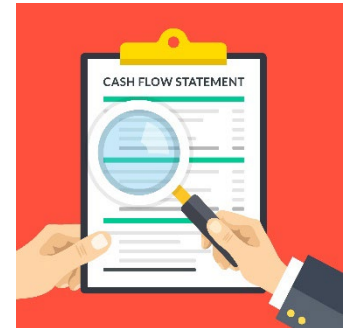
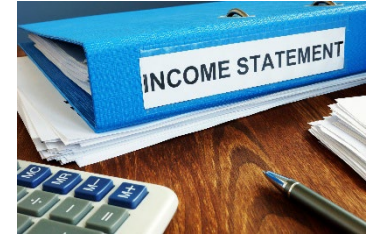
Part 2: The Bizarro World of Pension Accounting

- **Pension Plan Asset:** Changes based on the investment returns, plan contributions, and benefit payments
- **Pension Plan Liability:** Changes based on employee contributions, benefit payments, the Service Cost, Interest Cost, and “Actuarial Gains / Losses”
- **Service Cost:** Increases as employees work and earn more
- **Interest Cost:** Represents the company getting closer to its benefit payments, which increases the Pension Liability because of the time value of money



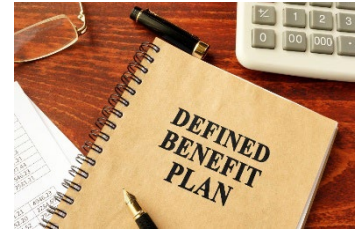
Part 2: The Bizarro World of Pension Accounting

- **Income Statement:** Companies attempt to “smooth out” earnings by recording their *Expected Returns* on Pension Assets and then amortizing the *difference* between the Expected and Actual Returns
- **Cash Flow Statement:** Add back or reverse the Income Statement Pension Expense (all non-cash) and deduct Employer Contributions; likely some Deferred Taxes as well
- **Wait, What?:** There is no line item for “Pension Payments to Employees” because these benefit payments reduce *both* the Pension Asset *and* the Pension Liability!



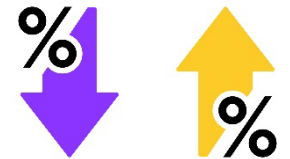
Part 3: Pensions in a DCF & Other Adjustments

- **Great Article:** From [The Footnotes Analyst](#) – describes different DCF treatments, but quite advanced
- **Short/Simple Version:** Deduct the Service Cost from UFCF, add it back as a non-cash expense, and deduct the tax-adjusted Net Pension Liability in the TEV / Eq Val bridge
- **Adjusted WACC (???)** = $\text{Cost of Equity} * \% \text{Equity}$
+ $\text{Cost of Debt} * \% \text{Debt} * (1 - \text{Tax Rate})$
+ $\text{Cost of Pension Liability} * \% \text{Pension Liability} * (1 - \text{Tax Rate})$
– $\text{Cost of Pension Asset} * \% \text{Pension Asset} * (1 - \text{Tax Rate})$



Part 3: Pensions in a DCF & Other Adjustments

- **Real Life:** I have reviewed ~1,000+ bank presentations and valuations over the years but have rarely, if ever, seen these WACC adjustments... not common in real life
- **Other Adjustments:** Some people also adjust the Pension Liability and Asset if they believe the company is using aggressive/unrealistic assumptions (e.g., assuming 2% employee wage growth rather than 3 – 4%)
- **But:** These points are important mostly if the company has a *massive* pension and a huge unfunded portion, neither of which is common today

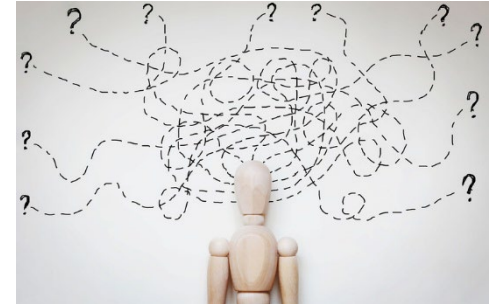


Recap and Summary

- **Part 1:** Sample Calculations for Michelin



- **Part 2:** The Bizarro World of Pension Accounting



- **Part 3:** Pensions in a DCF and Other Adjustments

