

Capital Structure: What To Understand

(Welch, Chapter 16)

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Our Plan is Chaos

- ▶ Plan: Confuse You!
 - ▶ There are *so many* choices to consider!
- ▶ Later, you will learn how to think about them.

- ▶ Further topics can include typical board compositions; staggered boards; institutional activism; fiduciary responsibility; board and ceo turnover, etc.

Cash Flow Rights

- ▶ What is a cash flow right?
- ▶ What are the cash flow rights of debt?
- ▶ What are the cash flow rights of equity??

But Why Oblige Later At All?

- ▶ Why do *any* owners and managers *ever* return *any* money to anyone providing funding, at all?

Straight vs Convertible Debt

- ▶ What is the difference between *straight debt* and *convertible debt*?
- ▶ Is a convertible bond more like debt or more like equity?

Secured vs Unsecured Debt

- ▶ What is the difference between *secured* or *senior debt*; and *unsecured* or *subordinated debt*?

Bond Features To Decide

- ▶ Covenants. Seniority. Collateral.
- ▶ Convertibility. Puttability. Callability.
- ▶ Sinking Fund. Maturity. Duration. Coupon.
- ▶ Fixed-rate vs Floating-rate.

- ▶ Less so nowadays: Diffuse vs Concentrated. Financial vs Non-Financial.

Bank Loan vs (Public) Bonds

- ▶ How is/was a bank loan different from a bond?

Non-Financial Liabilities

- ▶ What is a non-financial liability (NFL) ?

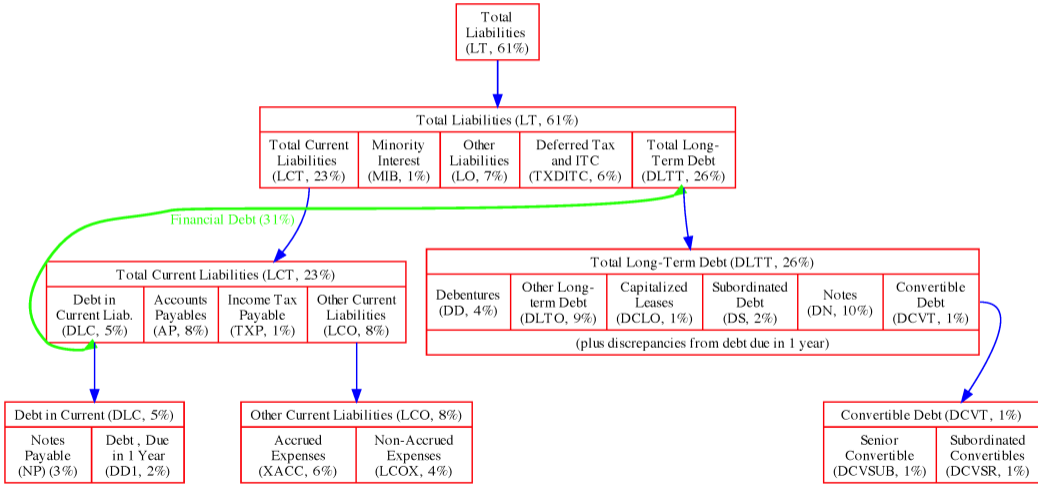
Are NFL and FD Different?

- ▶ Does financial debt (FD) provide resources to help fund the firm?
- ▶ Do non-financial liabilities (NFLs) provide resources to help fund the firm?

Empirical Magnitudes

- ▶ How big are NFLs usually compared to FD?

Graph: Components of Total Liabilities



Graph Footnotes

- ▶ The preceding were averages over all (non-tiny) firms on Compustat.
- ▶ Watch out: the denominator were **BV** of assets. Typically, the MV is 1.5 to 2.0 times the BV.
- ▶ For details, see Ivo Welch, *Two Common Problems in Capital Structure Research: The Financial-Debt-To-Asset Ratio and Issuing Activity Versus Leverage Changes*, IRF 11:1, 2011, p 1-17.

Common vs Preferred Equity

- ▶ What is the difference between *Common Equity* and *Preferred Equity*?

Equity Features To Decide

- ▶ Warrants vs Options.
- ▶ Units.
- ▶ Class A and Class B shares.
- ▶ Public vs Private Placements.

Assets — Current, INTC

Period Ending	Dec 26, 2015	Dec 27, 2014	Dec 28, 2013
Cash And Cash Equivalents	15,308	2,561	5,674
Short Term Investments	10,005	11,493	14,413
Net Receivables	6,823	6,385	6,176
Inventory	5,167	4,273	4,172
Other Current Assets	3,053	3,018	1,649
Total Current Assets	40,356	27,730	32,084

Assets

Period Ending	Dec 26, 2015	Dec 27, 2014	Dec 28, 2013
Total Current Assets	40,356	27,730	32,084
Long Term Investment	7,851	9,120	7,694
Property Plant and Equipment	31,858	33,238	31,428
Goodwill	11,332	10,861	10,513
Intangible Assets	3,933	4,446	5,150
Accumulated Amortization	na	na	na
Other Assets	7,735	6,505	5,489
Deferred LngTm Asset Charges	nap	na	na
Total Assets	103,065	91,900	92,358

Liabilities – Current

Period Ending	Dec 26, 2015	Dec 27, 2014	Dec 28, 2013
Accounts Payable	10,845	12,210	11,191
Short/Current Long Term Debt	2,634	1,596	281
Other Current Liabilities	2,188	2,205	2,096
<i>Total Current Liabilities</i>	15,667	16,011	13,568

Liabilities

Period Ending	Dec 26, 2015	Dec 27, 2014	Dec 28, 2013
<i>Total Current Liabilities</i>	15,667	16,011	13,568
<i>Long Term Debt</i>	20,036	12,059	13,165
Other Liabilities	2,841	3,278	2,972
Deferred LT Liability Charges	2,539	3,775	4,397
Minority Interest	na	na	na
Negative Goodwill	na	na	na
<i>Total Liabilities</i>	41,083	35,123	34,102
Temporary Equity	897	912	na

Equity

Period Ending	Dec 26, 2015	Dec 27, 2014	Dec 28, 2013
Redeemable Preferred Stock	na	na	na
Preferred Stock	na	na	na
Common Stock	23,411	21,781	21,536
Retained Earnings	37,614	33,418	35,477
Treasury Stock	na	na	na
Capital Surplus	na	na	na
Other Stockholder Equity	60	666	1,243
Total Stockholder Equity	61,085	55,865	58,256
Net Tangible Assets	45,820	40,558	42,593

Pension Liabilities

- ▶ *Defined Benefit or Defined Contribution?*
 - ▶ Defined-benefit pension liabilities are among the largest liabilities of older blue-chip firms, governments, and multi-national firms.
 - ▶ US Social Security and Medicaid are defined benefit—and in trouble, too: The demographic transition will be killing them!
 - ▶ In the US, most corps have moved away from *defined benefit* to *defined contribution* plans.

A Nasty but Legal Business

- ▶ Buy companies with overfunded defined-benefit pension plans, replace the pension liabilities with the low bidder, take out the difference, and resell the firm.
 - ▶ “First Executive,” run by Fred Carr, did this in around 1985-1990 (with Drexel Junk Bonds).
 - ▶ Predictably, many of these insurers (including FE) later on went bankrupt themselves.
 - ▶ How could Fred Carr sleep at night?

INTC Outstanding Bonds I

Issued	Nominal	Type	Maturity	Stated	Amount
Q4-2015	\$915	senior	Dec 2045	4.70%	\$908
Q4-2015	A\$800	senior	Dec 2019	3.25%	\$181
		senior	Dec 2022	4.00%	\$397
Q3-2015	\$1,000	senior	Aug 2045	4.90%	\$1,009
Q3-2015	\$7,000	senior	Jul 2022	2.45%	\$1,748
		senior	Jul 2022	3.10%	\$996
		senior	Jul 2025	3.70%	\$2,247
		senior	Jul 2045	4.90%	\$1,998
	\$6,200	senior	Dec 2017	1.35%	\$2,999
		senior	Dec 2022	2.70%	\$1,492
		senior	Dec 2032	4.00%	\$744
		senior	Dec 2042	4.25%	\$924

INTC Outstanding Bonds II

Issued	Nominal	Type	Maturity	Stated	Amount
2011	\$5,000	senior	Oct 2016	1.95%	\$1,499
		senior	Oct 2021	3.30%	\$1,997
		senior	Oct 2041	4.80%	\$1,490
2009	\$2,000	jnr conv	Aug 2039	3.25%	\$1,103
2005	\$1,600	jnr conv	Dec 2035	2.95%	\$975

INTC Bonds Net of Issuing Costs

- ▶ Total Outstanding Bonds : \$22,707
- ▶ Less Current Part of Long-Term Debt: -\$2,602
- ▶ Less Issuing Costs: -\$69
- ▶ Debt Net of Issuing Costs: \$20,036

INTC Debt-Due Term Structure

Year	2016	2017	2018	2019	2020	2021-
Amount	\$1,500	\$3,000	\$0	\$181	\$1,750	\$17,845

More INTC Capital Structure

- ▶ We omitted discussion of more complexity of
 - ▶ used and unused credit lines,
 - ▶ total interest payments,
 - ▶ hedging out certain liabilities,
 - ▶ the prevailing interest rates at the time (to understand capital structure *changes*. the prevailing yield curve and credit spreads).
- ▶ ...and Intel has a fairly “vanilla” capital structure.

Measuring Leverage and Precariousness

- ▶ What are reasonable measures of firms' leverage / precariousness / debt burden?

Possible Debt Measures

- ▶ Financial Debt / Total Assets (??)
- ▶ Financial Debt / Financial Capital
- ▶ Total Liabilities / Total Assets
- ▶ (in book values or in market values?)

Reliability of Book Values

- ▶ How reliable are the book value of debt?
- ▶ How reliable are the book value of equity?

Market Value of Assets

- ▶ How do you calculate the MV of total assets?
 - ▶ The financials only list the BV of assets!

Debt Ratio Determinants

- ▶ What is the biggest determinant of year-to-year changes in most firms' debt ratios?