Fundamentals of Accounting and Finance for Distressed Companies

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TRACK A

2016

VALCON 2016: Emerging Valuation Issues in Bankruptcy and Beyond

Session 1 - Accounting & Finance Basics

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Session Objectives

- To Improve financial acumen
- To discuss accounting and financial concepts
- To examine the balance sheet, income statement and cash flow statement
- To use financial ratios to evaluate the financial condition of the firm and pre-cursers to financial distress
- To review the value drivers of a firm: growth, risk management, profitability, asset efficiency and leverage.
- To analyze the components of firm free cash flow as an introduction into business valuation concepts

Accounting's Role

- **The role of the *accounting function* is to provide information about the past performance to company executives and investors.**

- **This information is communicated in the financial statements**
  - Balance Sheet
  - Income Statement
  - Statement of Cash Flows
  - Statement of Shareholders' Equity

- **Accountants are responsible for reporting, controlling and budgeting activities.**

Finance's Role

- **The role of the *finance function* is to analyze information about the past to make investment, financing and operating decisions that improve the company's performance in the future.**
  - Investment Decisions (Capital Budgeting) to maximize return and includes: make vs. buy decisions, working capital management, treasury operations and asset acquisitions and divestitures.
  - Financing Decisions to minimize the cost of capital and includes: debt vs. equity financing, dividend policy and share repurchases.
  - Operating Decisions that improve efficiencies and includes: pricing and product mix, purchasing and supply chain decisions, controlling expenses and risk management.

Financial Management

- The goal of finance is to create wealth and maximize firm value.
- Wealth is created by making economic profit - where the rate of return on investments exceed the cost of capital
- The cost of capital is a function of the risk.
- There are two kinds of risk: (1) business (market) risk that affect the variability of future cash flows and (2) financial risk from the source of capital used.
- Thus, finance is the study of the trade-offs between risk and return. Firms compete for both customers and capital and must produce risk adjusted returns for investors to be able to attract and keep capital.

Financial Management Decisions

The Accounting Balance Sheet

Assets	Liabilities + SE
Short-term assets Long-term assets	Short-term liabilities Long-term liabilities Stockholder equity

The Economic Balance Sheet

Exchange value of assets (A) Wealth created (W)	Market value of debt (D) Market value of equity (E)

↑ ↑

Investment Decisions
What projects to pursue
What assets to obtain

Financing Decisions
Financing the asset purchases

Accrual vs Cash

- **Two parallel views of the company's "flows"**

Accrual Accounting	Cash Basis Accounting
<u>Resources</u>	**<u>Cash</u>**
Revenue	**Inflows**
- <u>Expense</u>	**- <u>Outflows</u>**
Profit	**Net Cash Flow**

Accrual accounting records revenues when they are earned and expenses are matched with the revenues as incurred. However, profits can be much different than the cash flow of the company based on the cash received and disbursed. The Statement of Cash Flows converts accrual accounting back to cash flow.

Revenue Recognition

- **What is Revenue?**
  - Average Selling Price x Quantity Sold
  - But when do we record it, when sold or paid?
- **Revenues are recognized (recorded) when they are both**
  - **Earned – The goods and services have been substantially provided**
  - Realized or Realizable – One of the following has been received
    - Cash
    - A claim to cash (accounts receivable)
    - Something that can be readily converted into cash

Revenue Recognition

- In some cases it can be difficult to determine whether revenue has been sufficiently "earned" to warrant recognition
- This presents an opportunity to exercise discretion that can lead to aggressive recognition of revenue
- To reduce abuse of revenue recognition and to narrow the variation in practice, in 1999 the SEC issued Staff Accounting Bulletin No. 101 (SAB 101) and modified it in December 2003 by issuing SAB 104.

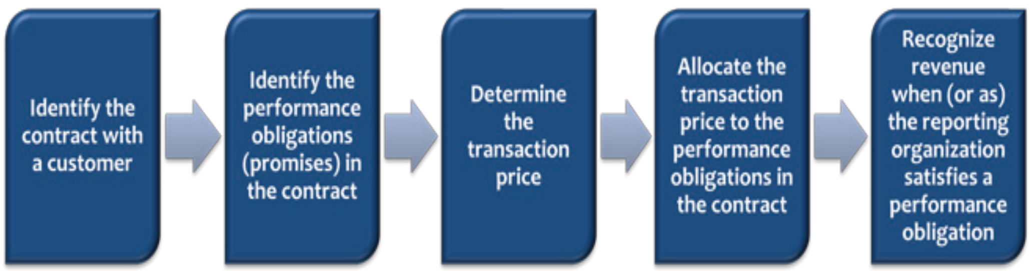
Revenue Recognition

- In this document, the SEC says that revenue should not be recognized unless all of the following occur
  - Persuasive evidence of an arrangement exists
  - Delivery has occurred or services have been rendered
  - The seller's price to the buyer is fixed or determinable
  - Collectability is reasonably assured
- A reserve for non-collectability of accounts receivable (bad debt) is recorded at the time of sale based on historical bad debt percentage.

IASB and FASB New Rev Rec Rules

FASB Topic 606 and IFRS 15 will become effective in 2017

Core Principle: Recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.



What changes under the new rules?

Today...	Under the new guidance...
There are numerous requirements for recognizing revenue.	There will be consistent principles for recognizing revenue, regardless of industry and/or geography.
Other than disclosures in accounting policies and segment reporting, most companies and other reporting organizations provide limited information about revenue contracts.	The new guidance includes a cohesive set of disclosure requirements that will provide users of financial statements with useful information about the organization's contracts with customers.
Many goods or services promised in a contract with a customer are deemed not to be distinct revenue-generating transactions when in fact those promises might represent separate obligations of the entity to the customer.	Reporting organizations will identify each of the goods or services promised to a customer, determine whether those goods or services represent a performance obligation, and recognize revenue when (or as) each performance obligation is satisfied.
In a multiple element arrangement the amount of consideration allocated to a delivered element is limited to the amount that is not contingent on delivering future goods or services.	Companies will allocate the transaction price to each of the performance obligations in the contract on the basis of the relative standalone selling price of the underlying goods or services, except when a discount or a variable amount of consideration relates entirely to one or more of the performance obligations in the contract.
Accounting for variable consideration differs greatly across industries.	A single model to consider for variable consideration, which includes rebates, discounts, bonuses, or a right of return. Variable consideration will be included in the transaction price to the extent it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur.

Expense Recognition

- When should an expenditure be written off?
  - When Incurred?
  - When Paid for?
  - When Used?
- Why are some expenditures capitalized and put on the balance sheet as an asset instead of expensing against revenues?
- Why is inventory shown in current assets and not subject to depreciation but new equipment is in long term assets and depreciated?
- Who determines the length of time over which the property is depreciated? And what is the difference between depreciation, amortization and depletion?

Expense Recognition

- **Expenses are recognized (recorded)**
  - By <u>matching</u>
    - Direct Materials, Direct Labor, Commissions
  - In the <u>period</u> in which they occur
    - Rent, Salaries
  - By <u>allocating</u> over several periods
    - Depreciation, Insurance, Warranty Expense
- **An expenditure to buy fixed assets or to add to the value of an existing fixed asset with a useful life that extends beyond the taxable year is "capitalized" by placing the asset on the balance sheet and depreciating the asset over its economic life.**

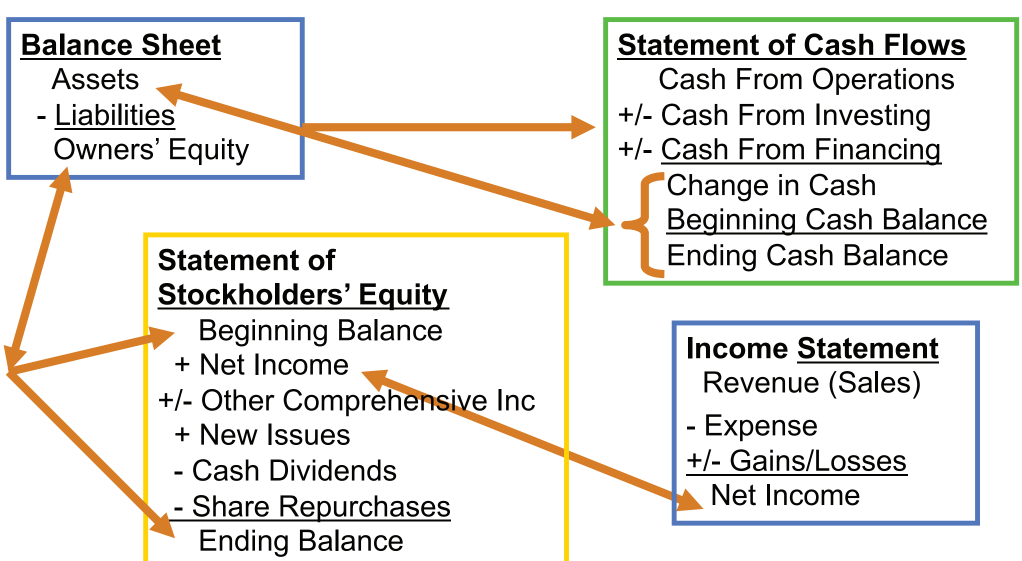
Revenue and Expense Recognition Summary

- **Revenues are recognized as "earned"**
  - An arrangement exists
  - Delivery has occurred
  - Price is fixed
  - Collectability is reasonably assured

- **Expenses are recognized as "incurred"**
  - Contributed to revenue production this period
  - Will not contribute to revenue production in future
  - Matched, Period, Allocated

- Shared Expenses are usually pooled and then allocated to profit centers based on the activity that created the expense (headcount, sq. footage, etc.)

Financial Statements



Balance Sheet

Assets (Investments)

Cash
Accounts Receivable
Inventory
Prepaid Expenses
Total Current Assets (Working Capital < 1 yr.)

Property Plant & Equipment (Fixed Assets/CAPEX)
Less: Accumulated Depreciation
Net Fixed Assets

Other Assets (Intangibles)
Total Assets

Balance Sheet (continued)

Liabilities & Owner's Equity

Accounts Payable (Vendor Credit)
Accrued Expenses (Taxes, etc.)
Short-term Debt (Lines of Credit)
Current Portion of Long-Term Debt
Total Current Liabilities (claims due < 1 yr.)

Long-Term Debt (claims due > 1 yr.)
Total Liabilities (Total Claims on Assets)

Owner's Capital
Retained Earnings
Owner's Equity (Net Worth or Stockholder's Equity)

Includes: Common Stock, Paid-in-Capital Preferred Stock, Treasury Stock, Profits Less Dividends Paid

Total Liabilities & Owner's Equity

Income Statement
(Profit/Loss Statement)

Sales (Revenues or Turnover)
- Cost of Goods Sold (Variable Costs, Direct Costs)
Gross Profit (Gross Contribution)
- Operating Fixed Costs (SG&A, Overhead or OPEX)
Earnings Before Depreciation, Interest & Taxes (EBITDA)
- Depreciation & Amortization (Non-cash expenses)
Net Operating Income (NOI or EBIT)
-Interest Expense
Earnings Before Tax (EBT, PBT, NIBT, Taxable Income)
- Corporate Income Taxes
Earnings After Tax (EAT, NIAT, PAT)

Dividends to Shareholders

Retained and Reinvested

Common Adjustments to Net Income:
- Minority Interests
- Non-Recurring Items

The Cash Flow Statement

- **Operating Cash Flows**
  - Net Income After Taxes
  - Plus: Depreciation/Amortization (Non-Cash Expenses)
  - Plus: Non-Cash Operating Expenses (Options, Unrealized (Gains)/Losses)
  - Less: Change in Net Working Capital (Changes in Receivables, Inventory, Payables and Accruals)
- **Investing Cash Flows**
  - Less: Increase in Fixed Assets (CAPEX)
- **Financing Cash Flows**
  - Borrowing and Repayment of Debt
  - Issuance & Re-repurchase of Equities
  - Dividend Payments

- **Effects of Currency**

= Change in Cash Position

Financial Analysis

- **Historical Performance is analyzed over three to five years using ratio analysis.**
  - Common Sized Statements
  - Trend Analysis
  - Benchmarking against industry/competitors

- **This Historical Analysis is filtered through:**
  - The current economic conditions
  - The industry
  - The competitive landscape
  - The Company analysis
    - Strengths, Weaknesses, Opportunities and Threats
    - It's Business Model and Strategy

TXU Case Study

- TXU, renamed Energy Future Holding (EFH), underwent a leveraged buyout by TPG, KKR and Goldman Sachs in 2007 for $32 billion plus the assumption of $13 billion in debt.
- Natural gas prices and competition caused the PE firms to write off most of their $8 billion investment by 2012.
- Other PE firms, Apollo Capital and Blackstone, bought much of the company's debt at a discount.
- EFH filed for Chapter 11 in April, 2014 with $40.9 billion in liabilities, the 8th largest filing in history.
- The senior lenders and creditors exchanged $23 billion in debt for ownership of an unregulated subsidiary, Texas Competitive Electric Holdings, in a tax free spinoff.
- The remaining creditors of EFH, that includes Oncor which delivers electricity to 10 million customers in Texas, also restructured their debt in the regulated company after the spinoff.

Energy Future Holdings12/31/13

In millions USD

Income Statement

Revenue	$5,899
COGS	
Gross Profit	$3,051
GPM 51.7%	
Other Op. Exp.	1,010
SG&A (OPEX)	747
Depr./Amort.	1,355
Op. Inc.	($61)
OPM (1.03%)	
Net Interest. Exp.	(2,703)
Income-Affiliates	335
Other Non-Op Inc	8
Taxable Inc.	(2,421)
Unusual Exp.	(1,175)
- Corp. Tax	(1,271)
Net Inc.–Company	(2,325)
Minority Int.	107
Net Income	($2,218)
NPM (37.6%)	
EPS (fully diluted)	($1.33)
# Shares – 1.67 Billion	

Balance Sheet

Cash & Mkt. Sec.	$1,217
Net Receivables	718
Tax Def. Asset/Other	1,121
Inventory	399
Other Cur. Assets	1,012
Total Current Assets	*$4,467*
Gross Fixed Assets	24,514
Accum Deprec.	(7,056)
PP&E ,net	*$17,458*
Long-term Invest	5,961
Goodwill & Intangibles	3,952
Deferred Tax Assets	2,012
Other Long-term Assets	2,590
Total Assets	*$36,445*
Current Liabilities	$43,506
Long term Debt	0
Other L-T Liabilities	6,195
Total Liabilities	*$49,701*
S/H Equity	*($13,255)*
Liabilities & Equity	*$36,445*

Statement of Cash Flows

Net Income	($2,218)
+Deprec. & Amort	1,512
+ Operating Exp Adj. (1)	153
+/- Dec/(Inc) in NWC	50
Cash From Operations	($503)
CAPEX	(497)
Other Invest Activity	500
Cash from Investing	$3
Debt Repaid	(187)
Other Financing	(9)
Cash From Financing	$(196)
Net Change Cash	($696)
Begin. Cash	1,913
Ending Cash	$1,217

$39,238MM in current liabilities is the current maturities of Long-term Debt

EFH P&L History

For the Fiscal Period Ending *Currency*	Reclassified 12 months Dec-31-2009 *USD*	12 months Dec-31-2010 *USD*	12 months Dec-31-2011 *USD*	12 months Dec-31-2012 *USD*	12 months Dec-31-2013 *USD*	LTM 12 months Sep-30-2014 *USD*
Revenue	9,546.0	8,235.0	7,040.0	5,636.0	5,899.0	6,058.0
Fuel & Purchased Power	2,878.0	4,371.0	3,396.0	2,816.0	2,848.0	2,929.0
Ops. and Maintenance	1,598.0	837.0	924.0	888.0	881.0	856.0
Selling General & Admin Exp.	1,068.0	751.0	742.0	674.0	747.0	747.0
Depreciation & d.	1,754.0	1,407.0	1,455.0	1,373.0	1,355.0	1,318.0
Other Operating Exp.	(1,405.0)	(2,060.0)	(926.0)	(309.0)	129.0	306.0
Total Operating Exp.	**5,893.0**	**5,306.0**	**5,591.0**	**5,442.0**	**5,960.0**	**6,156.0**
EBITDA	5,758.0	4,640.0	3,156.0	1,743.0	1,451.0	1,364.0
Operating Income	**3,653.0**	**2,929.0**	**1,449.0**	**194.0**	**(61.0)**	**(98.0)**
Net Interest Exp.	**(2,867.0)**	**(3,544.0)**	**(4,292.0)**	**(3,506.0)**	**(2,703.0)**	**(2,085.0)**
Income/(Loss) from Affiliates	-	277.0	286.0	270.0	335.0	356.0
Other Non-Operating Inc. (Exp.)	23.0	3.0	2.0	(274.0)	8.0	11.0
EBT Excl. Unusual Items	**809.0**	**(335.0)**	**(2,555.0)**	**(3,316.0)**	**(2,421.0)**	**(1,816.0)**

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EFH Unusual Items

For the Fiscal Period Ending	Reclassified 12 months Dec-31-2009	12 months Dec-31-2010	12 months Dec-31-2011	12 months Dec-31-2012	12 months Dec-31-2013	LTM 12 months Sep-30-2014
Currency	*USD*	*USD*	*USD*	*USD*	*USD*	*USD*
Total Merger & Rel. Restruct. Charges	(7.0)-	(5.0)	-	-	-	-
Impairment of Goodwill	(90.0)	(4,100.0)	-	(1,200.0)	(1,000.0)	(1,000.0)
Gain (Loss) on Sale of Invest.	-	37.0	-	-	-	-
Gain (Loss) On Sale Of Assets	-	44.0	-	(4.0)	-	2.0
Asset Writedown	(34.0)	-	(427.0)	(70.0)	(177.0)	(147.0)
Total Insurance Settlements	-	6.0	7.0	2.0	2.0	0
Total Legal Settlements	(3.0)	-	-	-	-	(519.0)
Other Unusual Items	100.0	1,930.0	(28.0)	(4.0)	-	(720.0)
EBT Incl. Unusual Items	**775.0**	**(2,423.0)**	**(3,047.0)**	**(4,592.0)**	**(3,596.0)**	**(4,200.0)**
Income Tax Expense	367.0	389.0	(1,134.0)	(1,232.0)	(1,271.0)	(1,176.0)
Earnings from Cont. Ops.	**408.0**	**(2,812.0)**	**(1,913.0)**	**(3,360.0)**	**(2,325.0)**	**(3,024.0)**
Minority Int. in Earnings	(64.0)	-	-	-	107.0	107.0
Net Income	**344.0**	**(2,812.0)**	**(1,913.0)**	**(3,360.0)**	**(2,218.0)**	**(2,917.0)**

EFH Balance Sheet (Assets)

Balance Sheet as of:	Dec-31-2009	Dec-31-2010	Dec-31-2011	Dec-31-2012	Dec-31-2013	Sep-30-2014
Currency	*USD*	*USD*	*USD*	*USD*	*USD*	*USD*
ASSETS						
Cash And Equivalents	1,189.0	1,534.0	826.0	1,913.0	1,217.0	3,606.0
Short Term Investments	425.0	-	-	-	-	-
Trading Asset Securities	60.0	95.0	142.0	134.0	67.0	-
Accounts Receivable	1,260.0	999.0	767.0	718.0	718.0	923.0
Other Receivables	-	-	-	-	-	-
Accounts Receivable, Total	**1,260.0**	**999.0**	**767.0**	**718.0**	**718.0**	**923.0**
Inventory	485.0	395.0	418.0	393.0	399.0	370.0
Deferred Tax Assets, Curr.	5.0	-	-	-	105.0	102.0
Restricted Cash	48.0	33.0	129.0	680.0	949.0	4.0
Other Current Assets	2,654.0	2,863.0	3,021.0	1,675.0	1,012.0	285.0
Total Current Assets	**6,126.0**	**5,919.0**	**5,303.0**	**5,513.0**	**4,467.0**	**5,290.0**
Gross Property, Plant & Equipment	36,311.0	23,558.0	23,910.0	24,281.0	24,514.0	26,161.0
Accumulated Depreciation	(6,633.0)	(3,545.0)	(4,803.0)	(5,937.0)	(7,056.0)	(9,100.0)
Net Property, Plant & Equipment	**29,678.0**	**20,013.0**	**19,107.0**	**18,344.0**	**17,458.0**	**17,061.0**

EFH Balance Sheet (Continued)

For the Fiscal Period Ending	Reclassified 12 months Dec-31-2009	12 months Dec-31-2010	12 months Dec-31-2011	12 months Dec-31-2012	12 months Dec-31-2013	LTM 12 months Sep-30-2014
Currency	*USD*	*USD*	*USD*	*USD*	*USD*	*USD*
Regulatory Assets	1,959.0	-	-	-	-	-
Goodwill	14,316.0	6,152.0	6,152.0	4,952.0	3,952.0	3,952.0
Other Intangibles	2,876.0	2,400.0	1,845.0	1,755.0	1,679.0	1,589.0
Long-term Investments	527.0	5,550.0	5,724.0	5,852.0	5,961.0	6,109.0
Other Long-Term Assets	3,750.0	6,001.0	5,626.0	4,193.0	2,596.0	1,883.0
Total Assets	**59,662.0**	**46,388.0**	**44,077.0**	**40,970.0**	**36,446.0**	**35,884.0**
LIABILITIES						
Accounts Payable	896.0	681.0	574.0	394.0	401.0	446.0
Accrued Exp.	528.0	566.0	628.0	579.0	573.0	112.0
Short-term Borrowings	1,569.0	1,221.0	774.0	2,136.0	2,054.0	-
Curr. Port. of LT Debt	1,104.0	1,447.0	834.0	781.0	39,290.0	132.0
Def. Tax Liability, Curr.	-	11.0	54.0	48.0	-	-
Other Current Liabilities	2,967.0	2,677.0	2,750.0	1,330.0	1,188.0	584.0
Total Current Liabilities	**7,064.0**	**6,603.0**	**5,614.0**	**5,268.0**	**43,506.0**	**1,274.0**

EFH Balance Sheet (continued)

For the Fiscal Period Ending	Reclassified 12 months Dec-31-2009	12 months Dec-31-2010	12 months Dec-31-2011	12 months Dec-31-2012	12 months Dec-31-2013	LTM 12 months Sep-30-2014
Currency	*USD*	*USD*	*USD*	*USD*	*USD*	*USD*
Long-Term Debt	42,059.0	35,209.0	37,108.0	39,354.0	-	43,323.0
Pension & Other Post-Retire. Benefits	1,711.0	1,895.0	1,664.0	1,035.0	1,057.0	278.0
Def. Tax Liability, Non-Curr.	6,168.0	5,350.0	3,989.0	2,828.0	3,433.0	2,835.0
Other Non-Current Liab., Total	4,496.0	3,242.0	3,459.0	3,408.0	1,705.0	2,770.0
Total Liabilities	**61,498.0**	**52,299.0**	**51,834.0**	**51,893.0**	**49,701.0**	**50,480.0**
Common Stock	2.0	2.0	2.0	2.0	2.0	2.0
Additional Paid In Capital	7,914.0	7,937.0	7,947.0	7,959.0	7,962.0	7,969.0
Retained Earnings	(10,854.0)	(13,666.0)	(15,579.0)	(18,939.0)	(21,157.0)	(22,491.0)
Comprehensive Inc. and Other	(309.0)	(263.0)	(222.0)	(47.0)	(63.0)	(76.0)
Total Common Equity	**(3,247.0)**	**(5,990.0)**	**(7,852.0)**	**(11,025.0)**	**(13,256.0)**	**(14,596.0)**
Minority Interest	1,411.0	79.0	95.0	102.0	1.0	-
Total Equity	**(1,836.0)**	**(5,911.0)**	**(7,757.0)**	**(10,923.0)**	**(13,255.0)**	**(14,596.0)**
Total Liabilities And Equity	**59,662.0**	**46,388.0**	**44,077.0**	**40,970.0**	**36,446.0**	**35,884.0**

EFH Cash Flow Statement

For the Fiscal Period Ending	12 months Dec-31-2009	12 months Dec-31-2010	12 months Dec-31-2011	12 months Dec-31-2012	12 months Dec-31-2013	12 months Sep-30-2014
Net Income	**344.0**	**(2,812.0)**	**(1,913.0)**	**(3,360.0)**	**(2,218.0)**	**(2,917.0)**
Depreciation & Amort., Total	**2,105.0**	**1,711.0**	**1,707.0**	**1,549.0**	**1,512.0**	**1,462.0**
Other Amortization	**275.0**	**228.0**	**380.0**	**270.0**	**270.0**	**207.0**
(Gain) Loss On Sale Of Invest.	(517.0)	213.0	836.0	(160.0)	(1,49.0)	(219.0)
Total Asset Writedown	149.0	4,100.0	471.0	1,271.0	1,177.0	1,147.0
(Income) Loss on Equity Invest.	-	(108.0)	(170.0)	(123.0)	(122.0)	(163.0)
Stock-Based Compensation	14.0	19.0	13.0	11.0	7.0	7.0
Provision & Write-off of Bad debts	113.0	108.0	56.0	26.0	33.0	40.0
Change in Acc. Receiv.	(125.0)	258.0	176.0	21.0	(33.0)	(33.0)
Sale/Securitization of Acc. Receivable	(33.0)	(383.0)	-	-	-	-
Change In Inventories	(59.0)	(6.0)	(23.0)	19.0	(6.0)	(6.0)
Change in Acc. Payable	(141.0)	(93.0)	(120.0)	(142.0)	11.0	11.0
Change in Other Net Operating Assets	105.0	(36.0)	543.0	(968.0)	45.0	125.0
Other Operating Activities	(519.0)	(2,093.0)	(1,115.0)	768.0	(130.0)	372.0
Cash from Ops.	**1,711.0**	**1,106.0**	**841.0**	**(818.0)**	**(503.0)**	**33.0**

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EFH Cash Flow Statement (cont)

For the Fiscal Period Ending	12 months Dec-31-2009	12 months Dec-31-2010	12 months Dec-31-2011	12 months Dec-31-2012	12 months Dec-31-2013	12 months Sep-30-2014
Capital Expenditures	(2,348.0)	(838.0)	(552.0)	(664.0)	(541.0)	(378.0)
Sale of Property, Plant and Equipment	42.0	147.0	52.0	2.0	4.0	4.0
Purchase/Sale of Intangibles	0	(18.0)	(7.0)	(25.0)	(16.0)	(13.0)
Nuclear Fuel Expenditures	(197.0)	(106.0)	(132.0)	(213.0)	(116.0)	(133.0)
Cont. To Nuclear Decomm. Trust	(3,080.0)	(990.0)	(2,436.0)	(122.0)	(191.0)	(314.0)
Net Cash from Investments	142.0	-	-	-	-	-
Total Other Investing Activities	2,808.0	1,337.0	2,540.0	(446.0)	863.0	498.0
Cash from Investing	**(2,633.0)**	**(468.0)**	**(535.0)**	**(1,468.0)**	**3.0**	**(336.0)**
Total Debt Issued	**854.0**	**1,121.0**	**1,758.0**	**3,652.0**	**-**	**4,899.0**
Total Debt Repaid	**(396.0)**	**(1,388.0)**	**(1,925.0)**	**(242.0)**	**(187.0)**	**(2,629.0)**
Other Financing Activities	(36.0)	3.0	(847.0)	(37.0)	(9.0)	(177.0)
Cash from Financing	**422.0**	**(264.0)**	**(1,014.0)**	**3,373.0**	**(196.0)**	**2,093.0**
Misc. Cash Flow Adj.	-	(29.0)	-	-	-	-
Net Change in Cash	**(500.0)**	**345.0**	**(708.0)**	**1,087.0**	**(696.0)**	**1,790.0**

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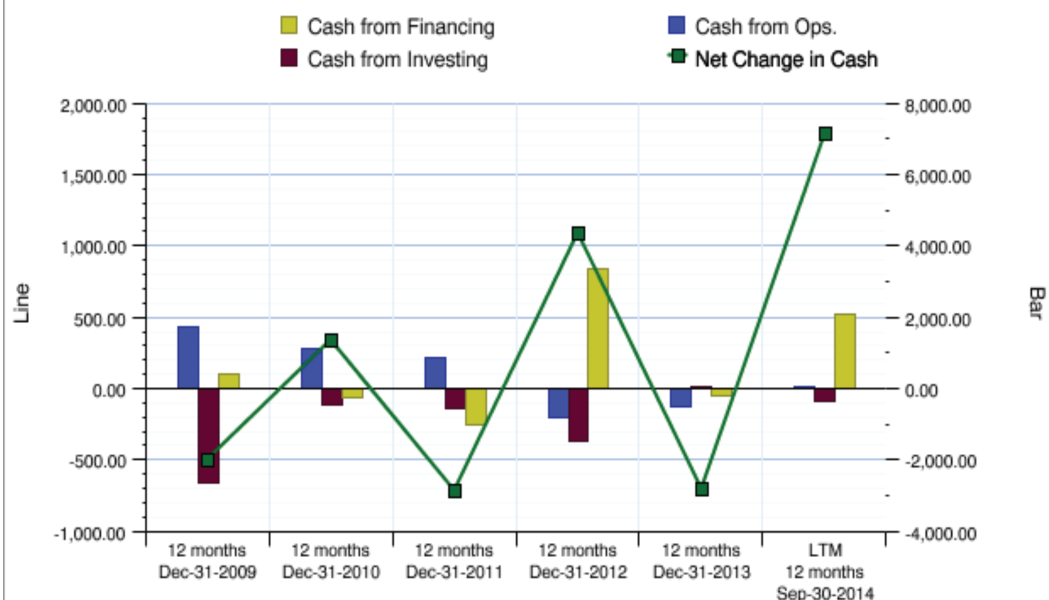
Energy Future Holdings Cash Flow



The Blue Bar – Cash from Operations – is the lifeblood of the company and what sustains the company's ability to make CAPEX and cover financing requirements.

The 13-Week Cash Flow Projection

- **The primary tool of a restructuring firm is the rolling 13-week cash flow projection.**

	Week 1		Week 2		Week 3		Week 4	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
Inflows								
Customer A	$ 12,000	$ 20,000	$ 23,000	$ 15,000		$ 20,000		
Customer B	$ 14,000	$ 15,000	$ 18,000	$ 17,500		$ 20,000		
Line of Credit draw	$ 5,000	$ -	$ -	$ 10,000				
Royalties	$ 1,500	$ 1,000	$ 1,000	$ 1,000		$ 1,000		
Misc	$ 10,000	$ 5,000	$ 7,000	$ 5,000		$ 5,000		
Total Inflows	**$ 42,500**	**$ 41,000**	**$ 49,000**	**$ 48,500**	**$ -**	**$ 46,000**		
Outflows								
Salary	$ -	$ -	$ 50,000	$ 50,000		$ -		
Debt Payment	$ 15,000	$ 15,000	$ 5,000	$ 5,000		$ -		
Line paydown				$ -		$ 23,000		
Vendor 1	$ 8,000	$ 10,000	$ 12,000	$ 10,000		$ 5,000		
Vendor 2	$ 7,000	$ 5,000	$ 3,000	$ 5,000		$ 10,000		
Insurance	$ 5,000	$ 5,000	$ 2,500	$ 2,500		$ 2,500		
Taxes		$ -		$ -				
Misc.	$ 7,000	$ 5,000	$ 4,000	$ 5,000		$ 5,000		
Total Outflows	**$ 42,000**	**$ 40,000**	**$ 76,500**	**$ 77,500**	**$ -**	**$ 45,500**		
Net Inflows (outflows)	**$ 500**	**$ 1,000**	**$ (27,500)**	**$ (29,000)**	**$ -**	**$ 500**		
Liquidity								
Beginning Cash	$ 50,000	$ 50,000	$ 50,500	$ 51,000	$ 23,000	$ 22,000		
Net Outflows	$ 500	$ 1,000	$ (27,500)	$ (29,000)	$ -	$ 500		
Ending Cash	**$ 50,500**	**$ 51,000**	**$ 23,000**	**$ 22,000**	**$ 23,000**	**$ 22,500**		
LOC availability	$ 95,000	$ 100,000	$ 95,000	$ 90,000	$ 95,000	$ 113,000		
Liquidity	**$ 145,500**	**$ 151,000**	**$ 118,000**	**$ 112,000**	**$ 118,000**	**$ 135,500**		

Financial Statement Analysis - Financial Ratios

- Solvency & Risk measurements
- Profitability & Return measurements
- Efficiency & Productivity measurements
- Valuation & Market measurements

Financial Ratios:
Key Areas of Performance Measurement

- **Performance in several key areas must be considered when evaluating a firm's prospects for the future**
  - Operational analysis
  - Resource management
  - Profitability and Productivity
  - Investment returns
  - Market indicators
  - Risk - Liquidity, leverage, and debt service coverage

Source: Helfert, Erich A., "Techniques of Financial Analysis: A Guide to Value Creation," 10th Edition, Irwin McGraw Hill, Burr Ridge IL, 2000.

Common Size Statements

- **Financial analysis is about pattern recognition. You look for symptoms and then diagnose causes. You need to convert data to information.**
- **It is often useful to compute common size financial statements when analyzing a firm's financial performance**
- **Common Size financial statements**
  - Income statement: All items in the income statement are restated as a percent of sales
  - Balance sheet: All balance sheet items are restated as a percent of assets
  - Provide insights concerning trends in the firm's operating performance and financing

Financial Ratios

- **Solvency & Risk Measurements**
  - Liquidity (Short-term Solvency)
  - Leverage (Long-term Solvency)
  - Debt Coverage (Ability to service financial obligations)
- **Profitability & Return Measurements**
  - Profitability (Return on Sales – Profit Margins)
  - Return (Profit Related to Investment)
- **Efficiency & Productivity Measurements**
  - Asset Turnover (Asset Efficiency/Utilization)
  - Cash Conversion Cycle
  - Sales per employee or Sales per sq. ft.
- **Market & Valuation Measurements**
  - **Earnings per share (EPS) , P/E Ratio, Enterprise Value/EBITDA**

Key Financial Terms

- Liquidity – The ability of the company to meet maturing obligations. Current Assets relative to Current Liabilities.
- Leverage – Long-term solvency ratio. The amount of debt capital used relative to equity (shareholder) capital. Debt to Equity to Debt to Total Assets.
- Coverage – The ability of the cash flow from operations to cover the annual debt service of the company. Cash Flow divided by annual debt service or EBIT/Interest Expense
- Profitability – The return on each sales dollar (margin).   After the total costs of producing sales, how much money of left over. Measured by profit margins (profit/net sales).
- Asset Turnover– Utilization (Asset Turnover) measurement. Sales divided by Total Assets
- Rate of Return – some measure of profit divided by some measure of the investment. Return on Assets Profit divided by Assets.

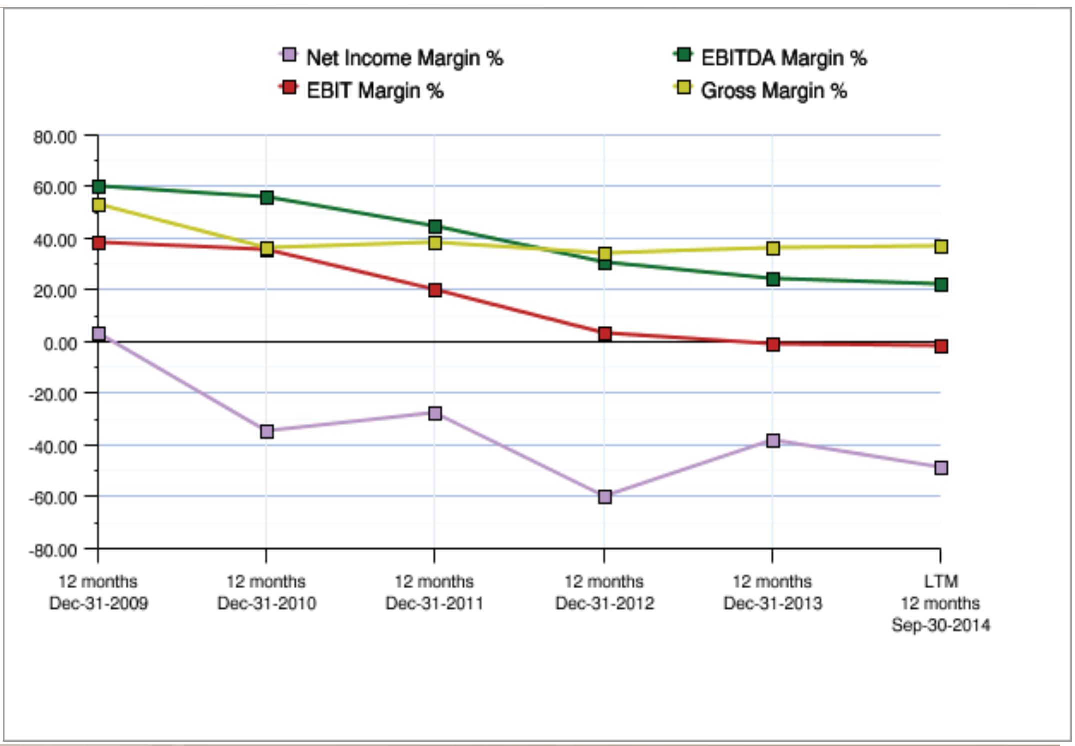
Signs of Financial Distress

- **Declining ROA, ROIC and ROE**
  - Decline in profit margins and/or
  - Decline in asset turnover
    - Plant and Equipment Utilization (Lower CAPEX)
    - Working Capital Management
      - Increase in Days Sales Outstanding (DSO) followed by decrease (Cash Discounts/Factoring)
      - Increase in Days Sales Inventory (DSI) followed by decrease (stockouts)
      - Increase in Days Payable Outstanding (DPO) followed by decline in DPO (put on COD).
- **Decline in Liquidity Ratios**
  - Current Ratio, Quick Ratio and Net Working Capital
- **Increase in Leverage Ratios**
  - Debt to Assets, Debt to Equity, Debt to EBITDA
- **Decrease in Coverage Ratios**
  - Times Interest Earned, EBITDA/(Interest/Capex)
- **Decline in Operating Cash Flow**

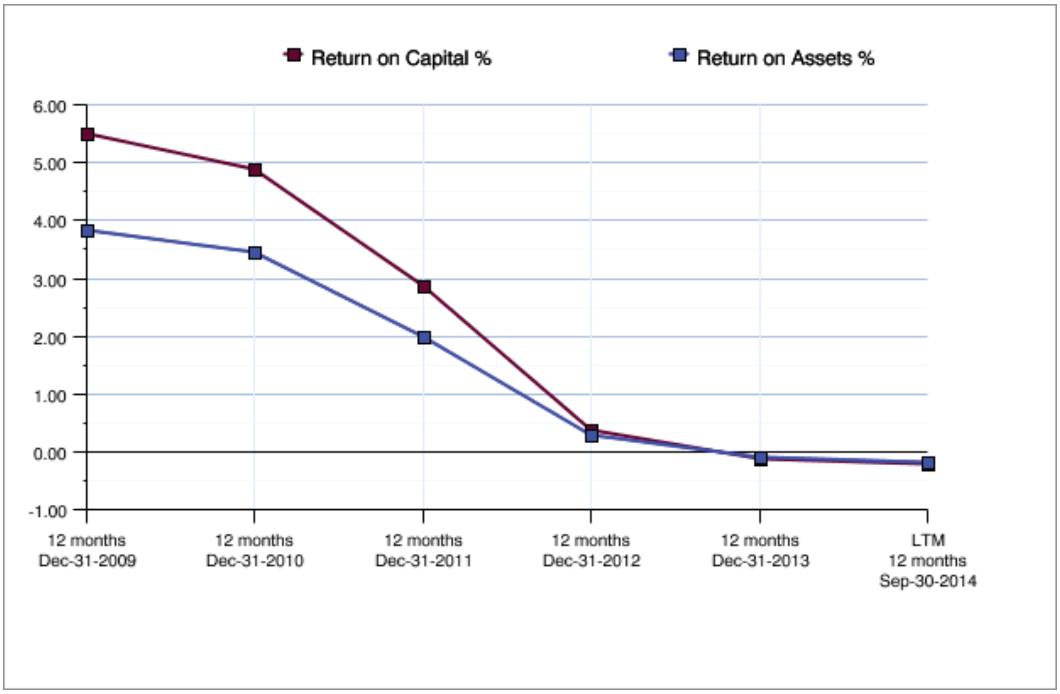
Signs of Financial Distress

- **Decline in market share**
- **Sale of assets to generate cash**
- **Significant non-recurring items**
- **Turnover of key personnel**
  - Brain Drain
- **Product and service quality deterioration.**
  - Cost cuts leading to poor quality and delivery times
- **Change in accounting firms and banks**

Energy Future Holdings Profit Margins



Energy Future Holdings ROA & ROIC



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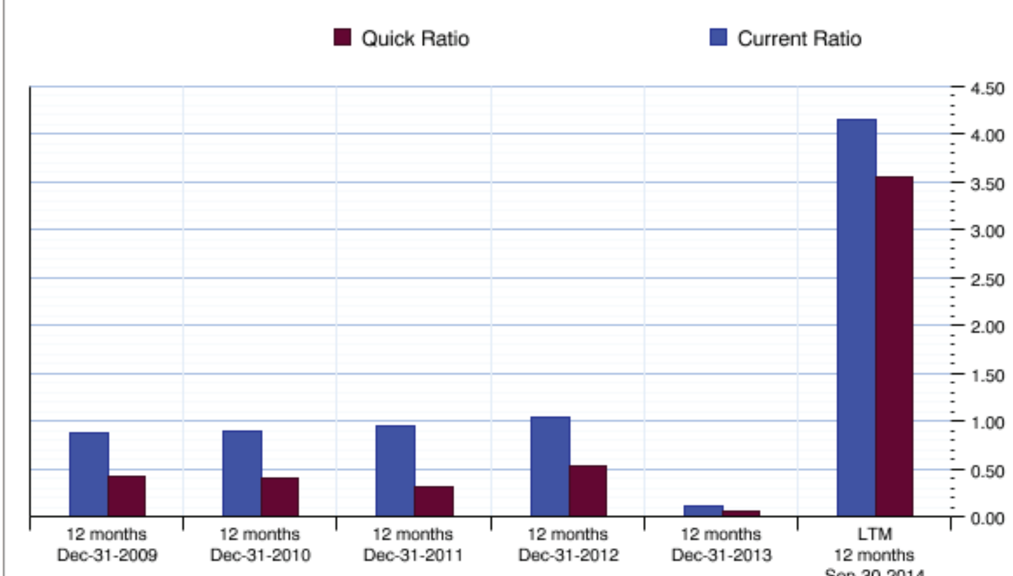
EFH Liquidity Ratios



Declining current and quick ratio is often a symptom. A ratio of less than 1.0 and no availability on credit lines is also common. Restructuring can help liquidity (i.e. 2014)

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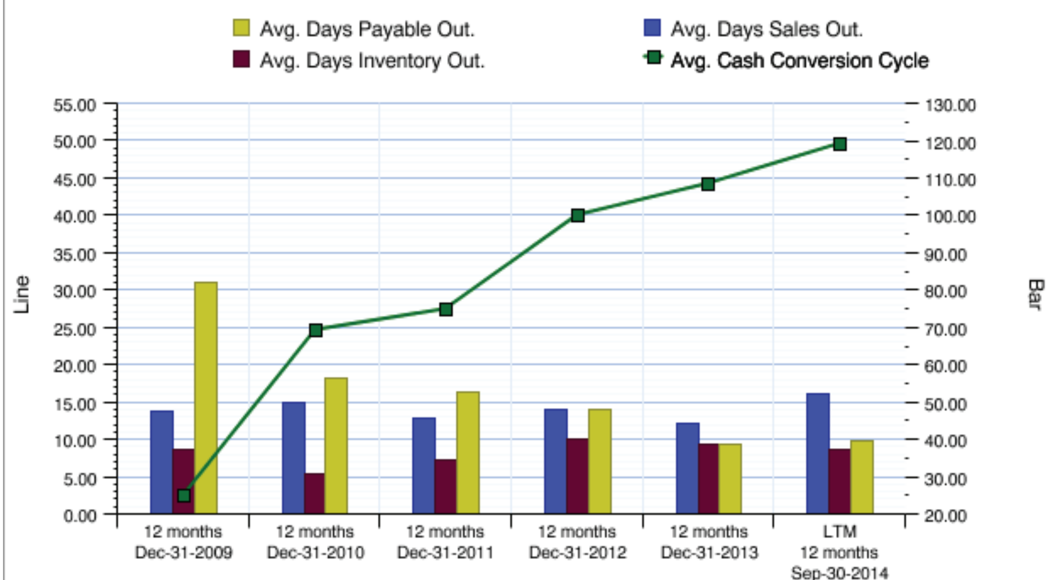
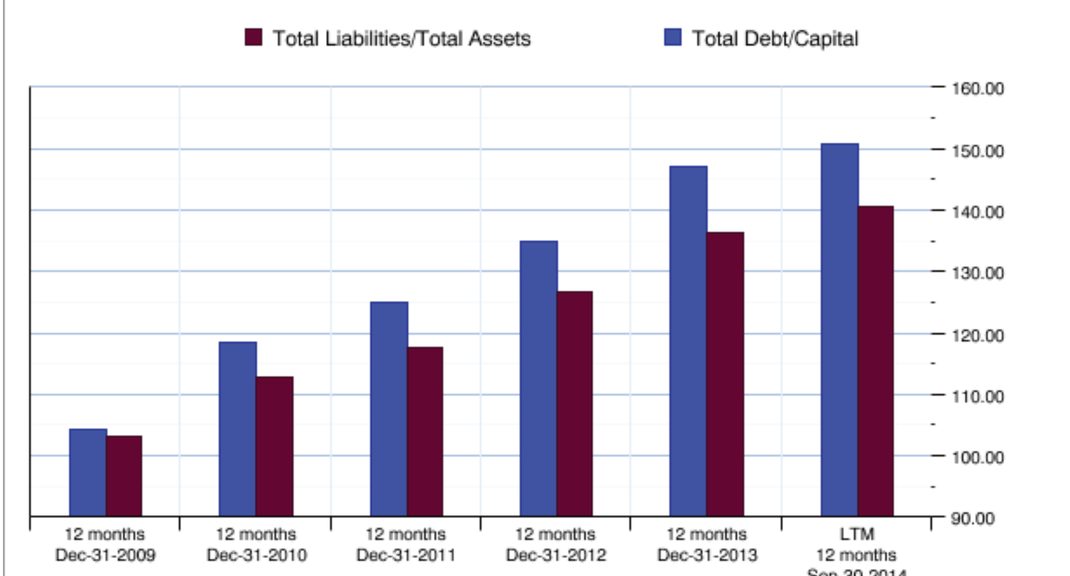
EFH Cash Conversion Cycle



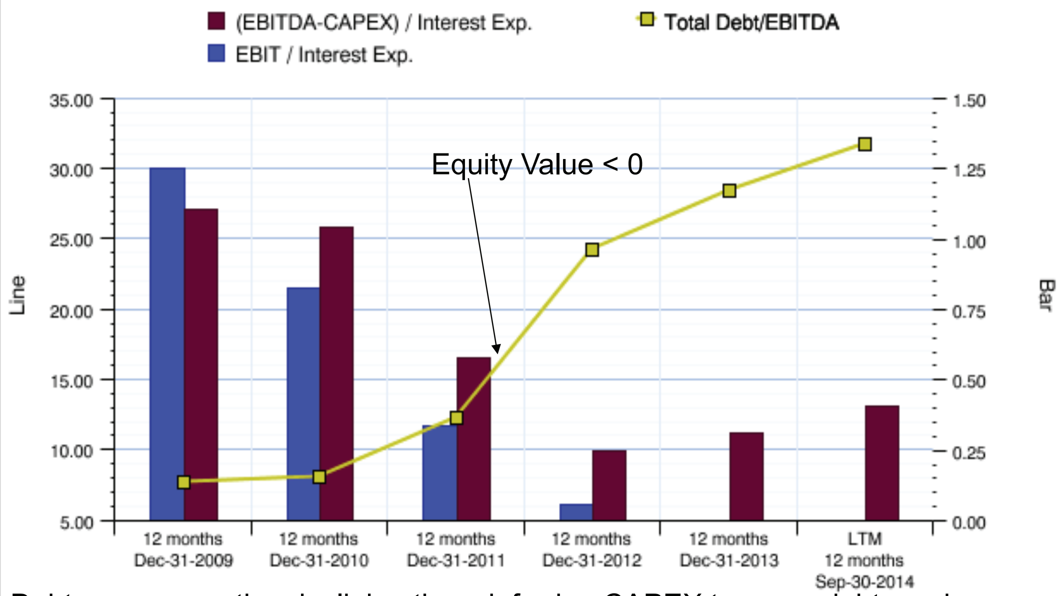
Lower days payable indicate company cannot leverage suppliers any more and whose suppliers have power. Lower CCC due to days payable rising indicate a company who can not pay suppliers who have no power over company.

EFH Leverage Ratios



Increased borrowing to cover negative cash flows are causing leverage ratios to increase.

EFH Coverage Ratios



Debt coverage ratios declining then deferring CAPEX to cover debt service. Debt to EBITDA increasing. Enterprise values of companies range from 6 – 12X EBITDA and a 25x Debt to EBITDA ratio in 2012 make equity valueless.

Measuring Performance

Business Performance

- **How should we measure the performance of a business?**
  - Revenue Growth?
  - Market Share?
  - Profitability?
  - Earnings per share?
  - Stock Price?
- **Return on Equity (ROE) is a very common measure of business performance (Return on Assets and Return on Invested Capital are other metrics).**
- **It measures the amount investors receive <u>per dollar invested</u> and is measured as:**

$$ROE = \frac{Net\ Income}{Owner's\ Equity} = \frac{Rev - Exp}{Assets - Liab}$$

Business Performance

- **Managers can increase the firm's value and it return to shareholders:**

$$ROE = \frac{Net\ Income}{Owner's\ Equity} = \frac{Rev - Exp}{Assets - Liab}$$

- **By increasing Revenue** (Profitability/Growth)
  - Increasing Average Selling Price (ASP) and/or Volume (Q)
    - Organic growth vs. acquisition ; New Products ; New Territories; Customer Acquisition, Development & Retention; New Channels
- **By decreasing Expenses** (Profitability)
  - Decrease Avg. Unit Cost (AUC) through Supply Chain Management, Labor Productivity, OPEX control and Scaling Fixed Costs
- **By decreasing Assets relative to Sales** (Efficiency)
  - Increasing Cash Conversion Cycle and Plant Utilization; Asset Divestitures; Sales increases without Asset Increases
- **By increasing Liabilities** (Leverage/Risk – other people's money)
  - Higher returns come with higher financial risk if ROIC > Cost of Debt

Business Performance

- **So ROE can be improved by managing:**
  - The Income Statement – Profitability and Growth
  - The Balance Sheet – Efficiency and Leverage

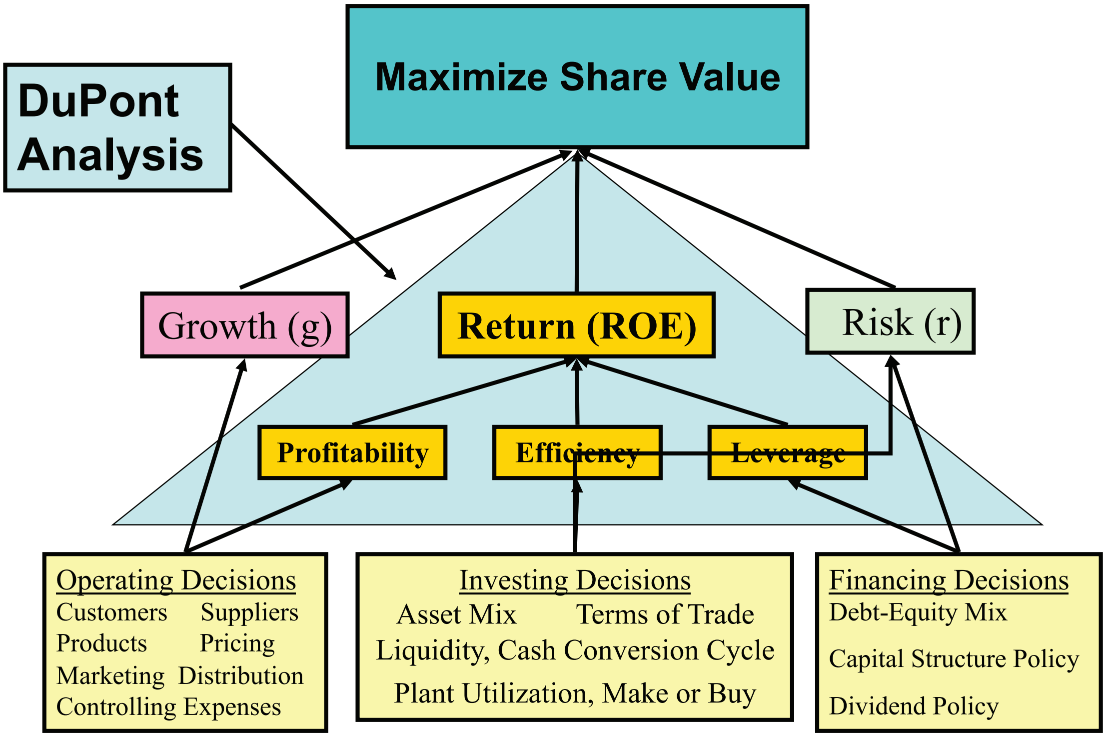
But why is ROE so important?

- **ROE is accounting's way of measuring the value created for the shareholders and can reveal the financial strategy of the company. The first signs of distress can be a declining ROE.**

A firm's sustainable growth rate is:

sustainable growth = ROE x Earnings Retention Rate

Financial Strategies


Maximize Share Value
DuPont Analysis
Growth (g)
Return (ROE)
Risk (r)
Profitability
Efficiency
Leverage
Operating Decisions
Customers Suppliers
Products Pricing
Marketing Distribution
Controlling Expenses
Investing Decisions
Asset Mix Terms of Trade
Liquidity, Cash Conversion Cycle
Plant Utilization, Make or Buy
Financing Decisions
Debt-Equity Mix
Capital Structure Policy
Dividend Policy

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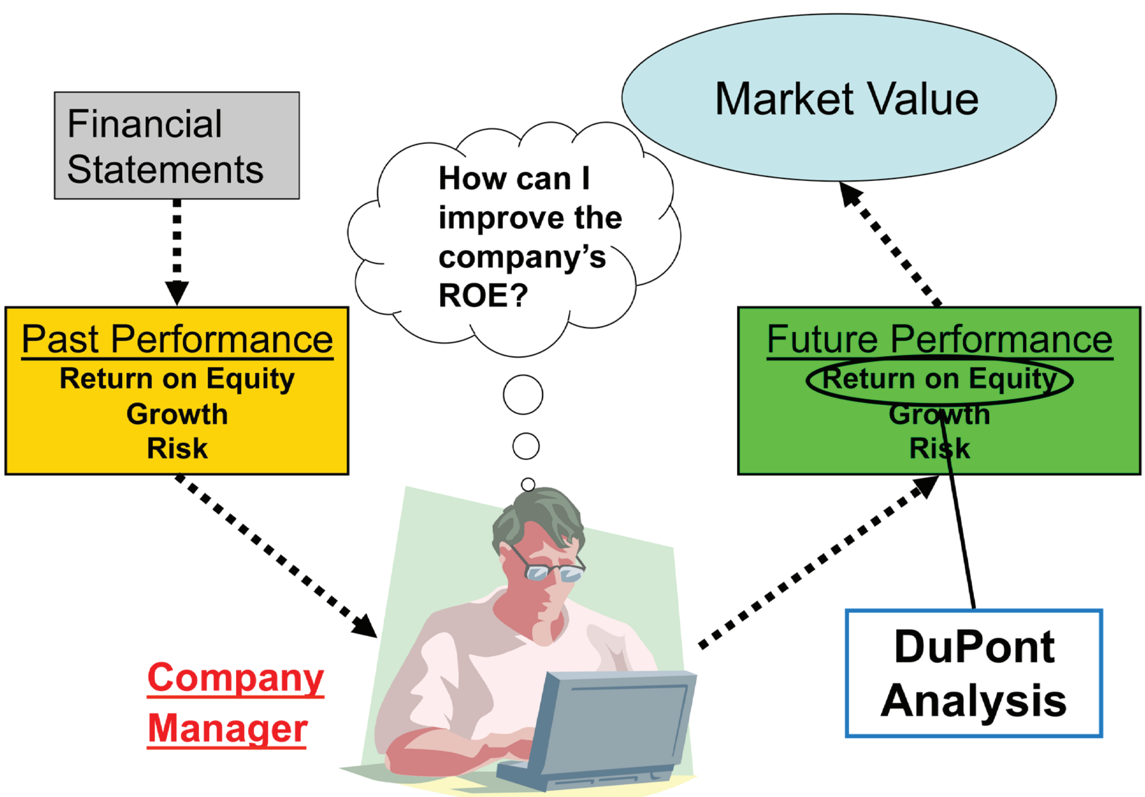
Financial Statements
Market Value
How can I improve the company's ROE?
Past Performance
Return on Equity
Growth
Risk
Future Performance
Return on Equity
Growth
Risk
Company Manager
DuPont Analysis

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Financial Strategy

- **The financial goal (recognizing there are other stakeholders) is to maximize shareholder wealth.**
  - This is accomplished by investing in projects that exceed the firm's cost of capital
  - Cost of capital is a function of risk and opportunity costs

- **Firms can create value by using its competitive advantage in:**
  - Costs (power over suppliers, business model, OPEX control)
  - Pricing (power over customers)
  - Asset Utilization
  - Access and Cost of Capital
  - Growth (branding, distribution channels, marcom)
  - Risk Management (hedging, diversification, leverage)

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Financial Strategies

- **Companies employ different strategies and tactics to achieve the goal of maximizing shareholder wealth.**
  - Some work off maximizing profit margins through differentiation or intellectual property (Software/ Pharmaceuticals)
  - Some work off scope (Proctor & Gamble, Wal-mart)
  - Some work off scale (Frito Lay, McDonalds)
  - Some work off efficient asset utilization (Airlines, Cable)
  - Some work off leverage (Insurance, Financial Services)
  - Combinations are possible

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DuPont Analysis

$$ROE = \frac{Inc}{OE} = \frac{Rev - Exp}{Assets - Liab}$$

$$\frac{Inc}{OE} = \frac{Inc}{Sales} \times \frac{Sales}{Assets} \times \frac{Assets}{OE}$$

Profitability on Sales

Asset Turnover (Efficiency)

Financial Leverage

DuPont Analysis

$$ROE = \frac{Inc}{OE} = \frac{Rev - Exp}{Assets - Liab}$$

Return on Assets (ROA)

$$\frac{Inc}{OE} = \boxed{\frac{Inc}{Sales} \times \frac{Sales}{Assets}} \times \frac{Assets}{OE}$$

Profitability on Sales

Asset Turnover (Efficiency)

Financial Leverage

Note: The same factors affect ROC

DuPont Analysis

- **Let's compare some public companies in different industries**
- **Let's look at**
  - Engineering & Construction - **Fluor**
  - A Grocery Chain **– Whole Foods**
  - A general merchandiser – **Wal-Mart**
  - A software company – **Microsoft**
  - A computer company – **Apple**
  - A financial institution – **Wells Fargo**
  - An insurance company – **Progressive**
- **What would you expect the return on equity to be for each of these companies given the risk of their industry to be able to attract capital?**
- **How do you think they generate their return? Through profit margins, asset efficiency or leverage**

DuPont Analysis

- **Last Twelve Months (2015)**

			Whole	Wal-			Wells Progressive
	Insurance	Fluor	Foods	Mart	Microsoft	Apple	Fargo
ROE	**20.8%**	**14.1%**	**19.0%**	**14.6%**	**46.2%**	**12.9%**	**18.2%**
Profit Margin	**3.9%**	**3.5%**	**3.1%**	**13.5%**	**22.8%**	**25.8%**	**6.3%**
Turnover	**2.45**	**2.7**	**2.3**	**0.5**	**0.9**	**0.048**	**0.7**
Leverage	**2.18**	**1.49**	**2.66**	**2.16**	**2.25**	**10.1**	**9.63**

Note the different financial strategies the different companies take to produce a risk adjusted return that allows they to attract capital.

- Fluor, Whole Foods and Wal-Mart work off volume and efficient asset turnover while leveraging their suppliers, but have small profit margins.
- Microsoft and Apple have intellectual property that enables them to have higher profit margins, but they have relatively low asset turnover (MSFT has $110B, Apple has $205B in cash & investments).
- Financial Service companies like Progressive and Wells Fargo have huge asset bases and low turnover, but work off other peoples money (leverage). Low investment returns, catastrophic losses, bad loans can affect ROE.

Free Cash Flow and Valuation

Applying the Past to the Future

- **We can use our financial analysis of historical operations to forecast the future free cash flows of the business.**
  - Growth in revenues, expenses, operating margins and tax rates to arrive at expected operating profits after tax.
  - Depreciation expense
  - Changes in working capital (receivables, inventory, and payables) as revenues change
  - Capital expenditures and capacity constraints
- **We also have a feel for the variability of cash flows, historical capital structure decisions, industry and competitor information that will assist in determining the appropriate discount rate (WACC) for the riskiness of the cash flows**

Operating Cash Flows

Operating Income= Revenues *(R)* – Costs *(C)* – Depreciation *(D)*

Operating Cash Flow

OCF = R – C –Tax Payments **(1)**

Since depreciation is tax-deductible,

Tax Payments= *(R-C-D) (Tax Rate)* **(2)**

Substitute (2) into (1) and rearrange terms:

OCF = R-C-(R-C-D)(Tax Rate) **(3)**

This can be further rearranged two ways:

Operating Cash Flows

OCF = (R-C-D)(1-Tax Rate) + D
= EBIT (1-TR) + D **(4)**

OR

OCF = (R-C)(1-Tax Rate) + D (Tax Rate) **(5)**

The second formulation illustrates the notion of a Depreciation Tax Shield

Why is interest expense not included as an operating expense?

The Firm's Total or "Free" Cash Flows

Assets (LHS) = Claims to Assets (RHS)

Cash Flows from *LHS*

Operating Cash Flows *(OCF)*

CAPEX (purchases less sales of fixed assets)

Additions to Net Working Capital *(NWC)*

Cash Flows from *RHS*

Cash flows to Debt

Interest
+ Debt retirement
– LT Debt Issues

Cash flows to Equity

Dividends
+ Stock Repurchases
– New Equity Issues
+ Merger payoffs

Discounted Free Cash Flow

The total value of a project or business (firm), V_F, equals the present value of the project's or firm's free cash flows (FFCF) that it is expected to provide investors (both debt and equity), discounted by the firm's weighted average cost of capital (WACC).

$$V_F = \sum_{t=0}^{\infty} \frac{FCFF_t}{(1 + WACC)^t}$$

where:
t is the period in which the cash flow is received.

The free cash flows from the firm are calculated as follows:

Net Revenue
- COGS & Operating Expenses
Earnings Before Interest, Taxes, Deprec & Amort (EBITDA)
- Depreciation and Amortization
Operating Income (EBIT)
x (1 - Average Tax Rate)
Net Operating Profit After Tax (NOPAT)
+ Depreciation and Amortization
- Capital Expenditures
- Additions to Net Working Capital
Free Cash Flows from the Firm (FCFF)

Free cash flow looks like a cash flow statement but is missing the financing cash flows. Why?

FCF and Firm Value

Our next session, led by Cesare Fracassi, will discussion business valuation and will use our calculation of a firm's free cash flow:

The value of a firm at time zero can be expressed by the Free Cash Flow Model

$$V_0 = \frac{FCF_1}{(1+r)^1} + \frac{FCF_2}{(1+r)^2} + \frac{FCF_3}{(1+r)^3} + \ldots \frac{TV_t}{(1+r)^t}$$

where

V_0 = Value at time zero

TV_t = Terminal Value at period t

r = Weighted Average Cost of Capital

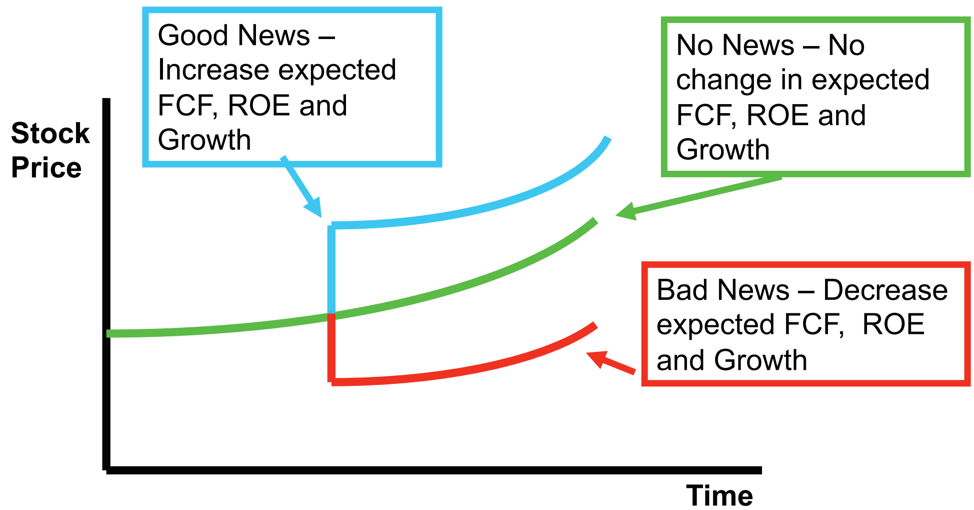
Note: FCF is the Firm's Free Cash Flows

Stock Price Maximization

Cash Flows have three dimensions which can be exploited for stock price maximization:

- **Magnitude**
  - The dollar amount of the cash flow
- **Timing**
  - The time of inflow or outflow (today or in the future)
- **Risk**
  - Business Risk - The likelihood of occurrence (variance)
  - Financial Risk - increased financial risk from debt financing

Accounting and Market Value



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The next session that will cover:

Valuation Basis

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Value Drivers

- **Value Levers**
  - Growth
  - Risk
  - Profitability
  - Asset Efficiency
  - Leverage
  - Time

ROE

A sooner dollar and a safe dollar is worth more than a later dollar and riskier dollar.

Business Valuation

Businesses are valued similar to a real estate appraisal.

- **Cost Approaches**
  - Replacement cost of the assets – Value in Trade or Liquidation
- **Market Value Approaches**
  - Precedent Transaction and Guideline Public Comparable company multiples
    - P/E ratio, Price/Book, Enterprise Value/Revenues, Enterprise Value/EBITDA
- **Income or Discounted Cash Flow Approaches**
  - Present Value of the future Income or Free Cash Flow
  - Leverage Buyout Value

Reading List

- Finance and Accounting for Non-Financial Managers by William Droms
- Financial Intelligence: A Manager's Guide to Knowing What the Numbers Really Mean (Hardcover) by Karen Berman, Joe Knight & John Case
- Corporate Financial Distress and Bankruptcy
  Predict and Avoid Bankruptcy, Analyze and Invest in Distressed Debt, 3rd Edition by Edward Altman and Edith Hotchkiss

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