THE "NITTY GRITTY" OF CREDIT REVIEWS

THE ESSENTIALS FOR EVALUATING COUNTERPARTIES

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Your Role In Credit

The role of credit is to manage, monitor and mitigate the likelihood of a financial loss caused by counterparties' non-performance / default on their contractual obligations.

- Exposure Estimation
- Reporting
- Collateral Management
- Deal Evaluation & Contract Negotiation Support
- **Assessment of Counterparty Credit Worthiness**
- **Limit Setting**

...(That's the hope anyway).

Your Role In Credit

...But what's really happening...

Your role in credit has become a juggling act for many and assessing counterparties for creditworthiness may be low on the priority list.

- Departments have shrunk (asked to monitor more counterparties per person) and time is limited.
- The necessity of performing reviews is perhaps perceived as "less important" to other tasks.
- Credit decisions are all formula or table driven.
- You may be asked to work on other "special" projects or other reasons.

Your Role In Credit

Reasons for assessing a counterparty's creditworthiness:

- "Because I said so"
- Credit defaults are infrequent but when they do happen they tend to be very expensive.
  - A wholesale credit default can cost millions in A/R losses and/or replacement costs (not counting legal expenses and/or political fallout).
  - Even if you are a net buyer, the default of a counterparty can mean a large expense to your organization (attorney fees, etc)
- "You can't win the game, but you can lose the game"

Determining Creditworthiness

What are some methods for assessing the overall creditworthiness of our trading counterparties?

✓Look to rating agency ratings

✓Look to market indicators (EDF / CDS / Bond Spreads)

✓Internal or external credit scoring (Formula & Ratio Driven)

✓**Independent Analysis – Decision based on individual company analysis**

Determining Creditworthiness

Please, tell me there's an App for that??

- We tend to over-rely on ratings / scorings / formula-driven decisions to judge creditworthiness and establish limits.
- Too often we don't really know what these ratings / scorings / other indicators mean when we use them.
- How can your credit decision be valid if you don't know what the information means?

✓**You need to do your homework!**

Determining Creditworthiness

Nothing substitutes for an informed opinion based on thorough and detailed research and financial analysis:

- Need to be able to read and understand a set of company financial statements.
  - Pick through the financial notes for additional vital information including both quantitative and qualitative information.
- Need to be able to put financial information into a broader industry context.
- Pay attention to what is happening in the news and marketplace and how this may impact your trading counterparty.

Determining Creditworthiness

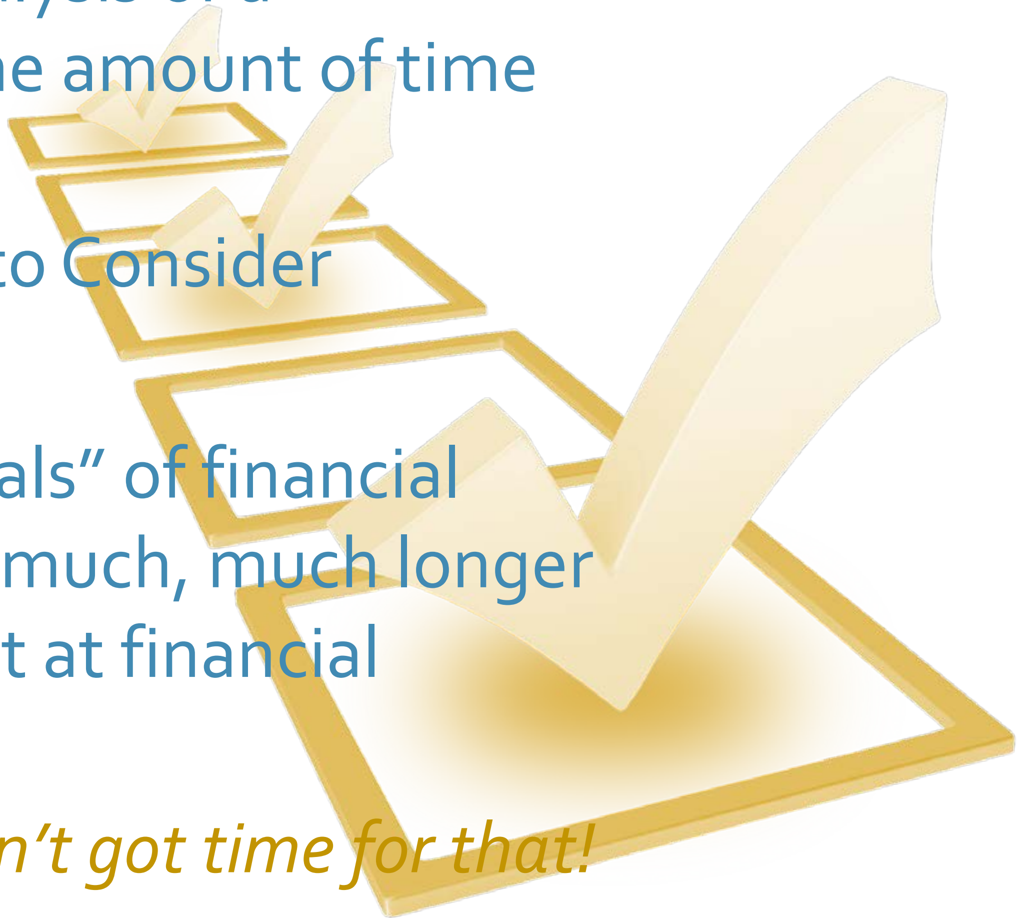
Financial Analysis is both an art and a science…But who has the time and/or the expertise to read and interpret financial statements?

Today's Goals

- Provide a framework for financial analysis of a counterparty that seeks to shorten the amount of time needed to perform a review.
  - A "Nitty Gritty" Checklist of Items to Consider

- This framework includes the "essentials" of financial statement analysis – we could spend much, much longer on learning how to be really proficient at financial statement analysis…

…but we ain't got time for that!



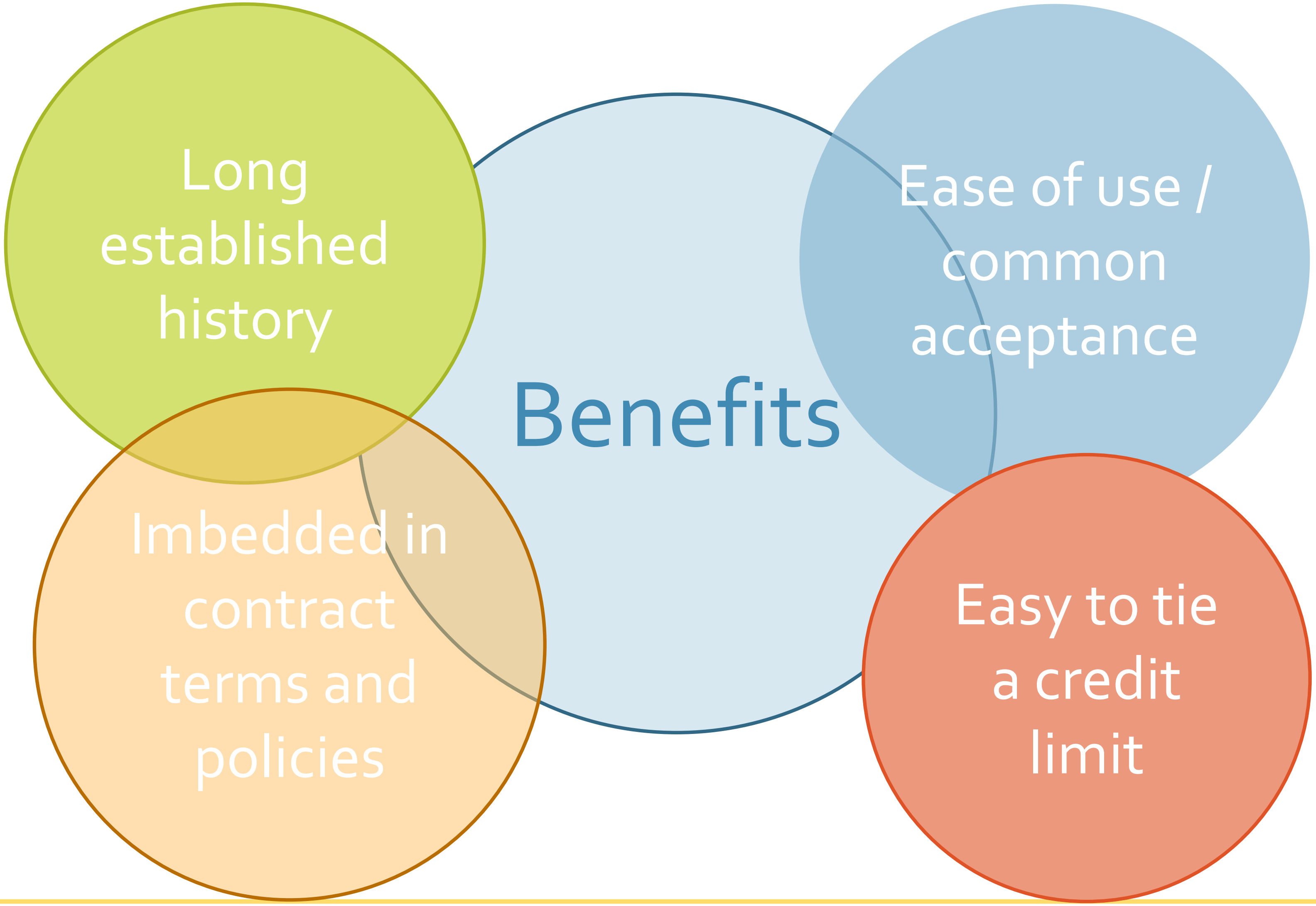
You Could Call This… "Step 1"

✓ **Lookup the Senior Unsecured or Corporate Credit Ratings**

- Ratings reflect a blend of objective and subjective information.
- Rating agencies have teams of "minions" performing fundamental financial analysis as well as applying pre-determined scoring vectors to come up with a credit rating.
- Rating agencies sometimes have access to management and financial information that is not available to us.

	Moody's	S&P	Fitch	Meaning
Investment Grade	Aaa	AAA	AAA	Prime
	Aa1	AA+	AA+	High Grade
	Aa2	AA	AA	
	Aa3	AA-	AA-	
	A1	A+	A+	Upper Medium Grade
	A2	A	A	
	A3	A-	A-	
	Baa1	BBB+	BBB+	Lower Medium Grade
	Baa2	BBB	BBB	
	Baa3	BBB-	BBB-	
Junk	Ba1	BB+	BB+	Non Investment Grade Speculative
	Ba2	BB	BB	
	Ba3	BB-	BB-	
	B1	B+	B+	Highly Speculative
	B2	B	B	
	B3	B-	B-	
	Caa1	CCC+	CCC+	Substantial Risks
	Caa2	CCC	CCC	
	Caa3	CCC-	CCC-	
	Ca	CC	CC	Extremely Speculative, Default Imminent
		C	C	
	C	D	DDD, D	In Default

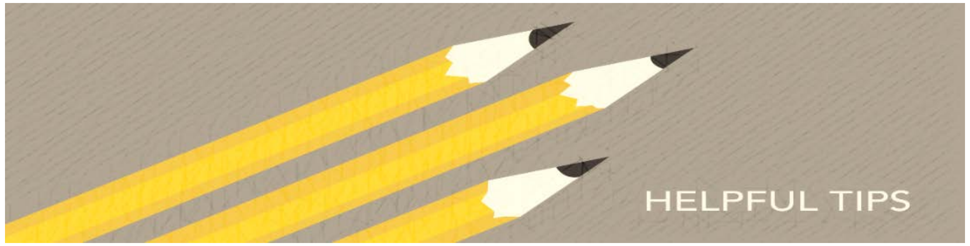
"Step 1": Rating Agency Ratings



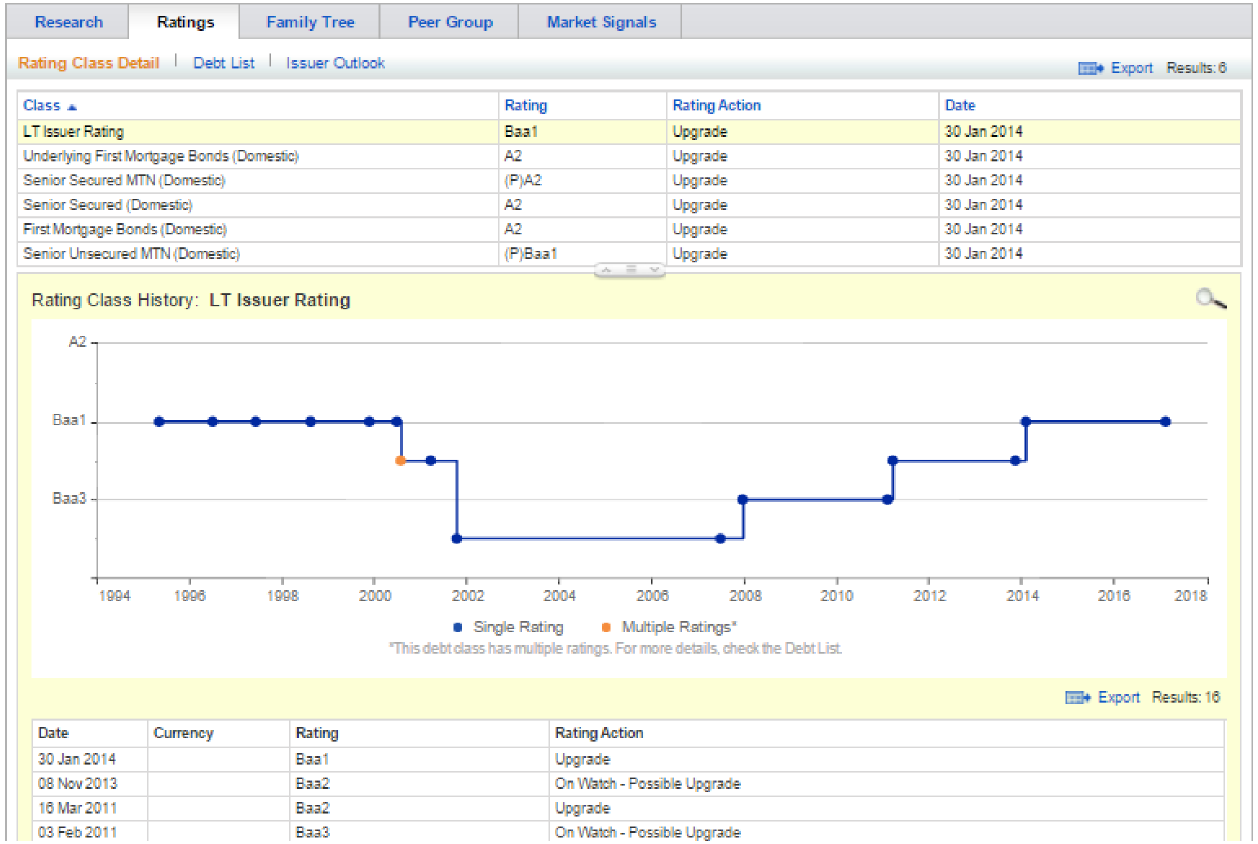
“Step 1”: Rating Agency Ratings

- Some counterparties are not rated.
- High frequency of split ratings.
- Agency ratings tend to lag the market as rating agencies rate “through the cycle”.
- Misunderstanding of how ratings are determined or are taken out of context:
  - Ratings can be a semi-automatic designation based on the rating of a parent company.
  - Not all similarly rated companies are equal.
- Rating agencies sometime miss the target:
  - Merchant energy 1998-2002
  - Mortgage bonds and banks 2006-2010

"Step 1": Rating Agency Ratings



- ✓ Do a little digging
- ✓ Look at the history of ratings
- ✓ Look for published commentary on why there was a change in ratings
  - Helpful to get an overview of the issues, either pro or con



Class ▲	Rating	Rating Action	Date
LT Issuer Rating	Baa1	Upgrade	30 Jan 2014
Underlying First Mortgage Bonds (Domestic)	A2	Upgrade	30 Jan 2014
Senior Secured MTN (Domestic)	(P)A2	Upgrade	30 Jan 2014
Senior Secured (Domestic)	A2	Upgrade	30 Jan 2014
First Mortgage Bonds (Domestic)	A2	Upgrade	30 Jan 2014
Senior Unsecured MTN (Domestic)	(P)Baa1	Upgrade	30 Jan 2014

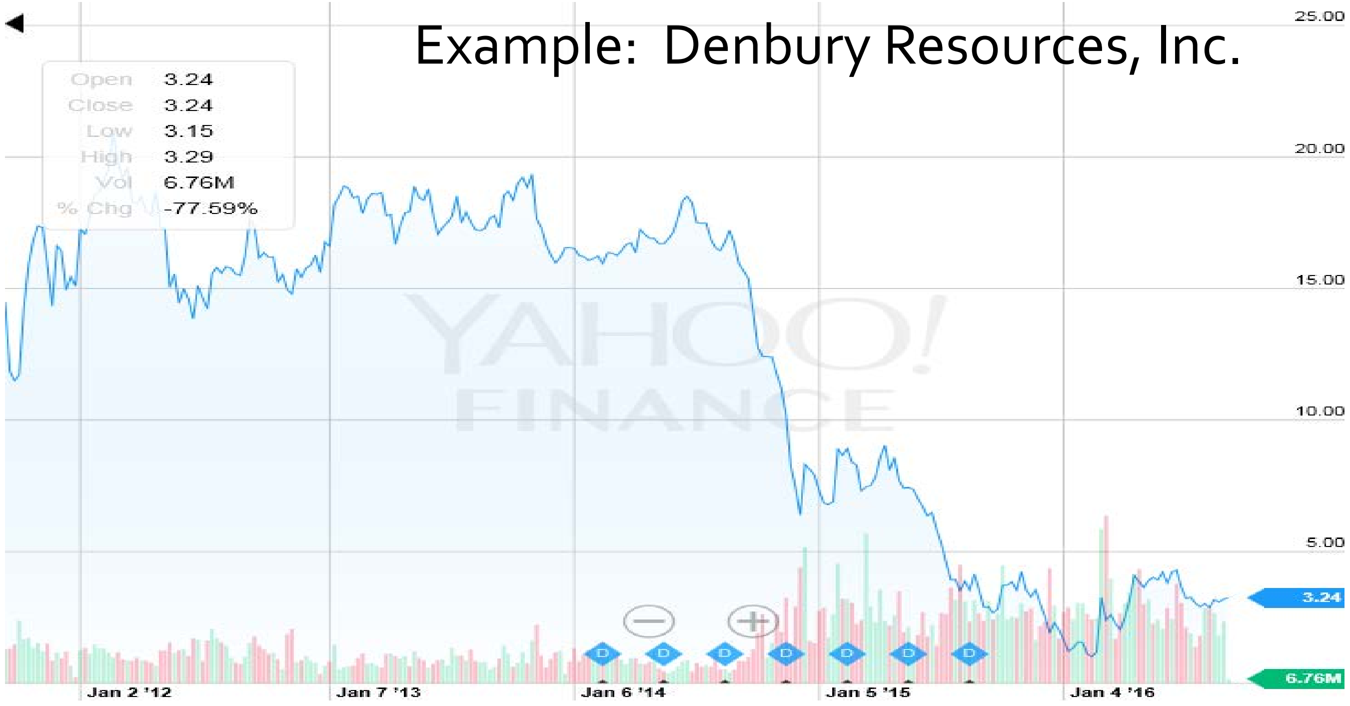
Date	Currency	Rating	Rating Action
30 Jan 2014		Baa1	Upgrade
08 Nov 2013		Baa2	On Watch - Possible Upgrade
16 Mar 2011		Baa2	Upgrade
03 Feb 2011		Baa3	On Watch - Possible Upgrade

Source: Moody's Investors Service

Next Up – What's the Market Saying?

- ✓Lookup ticker symbol to see some recent headlines and to get perspective on what investors think of the company.
- ✓If you have access, lookup other market indicators, such as EDFs, CDS and bond spreads.

Example: Denbury Resources, Inc.



Next Up – What's the Market Saying?

Market indicators can provide a good "leading" indicator of deteriorating or improving credit quality, but they:

- May be misunderstood and taken out of context.
- Tend to be descriptive rather than predictive.
- Don't tell you **WHY**? a company's credit rating is improving or declining.
- May reflect more factors than simply credit premiums and credit risk.
- Assumes market and price transparency – some bonds or equities may have limited transactions (not all markets are fully transparent).

What's Next? …Let's Analyze

As financial analysts, seeking to mitigate the likelihood of a financial loss caused by default, we are looking for both QUANTITATIVE and QUALITATIVE evidence of:

- ✓ *Lack of Solvency*
- ✓ *Lack of Liquidity*
- ✓ *Equity Erosion*
- ✓ *Revenue & Earnings Erosion*
- ✓ *Uncontrolled Costs*
- ✓ *Asset Impairments*
- ✓ *Unsupportable Leverage*
- ✓ *Misguided Management Decisions*
- ✓ *Failures in Risk Management (Market/Credit/Operational)*

The impact of each varies based on industry sector and company profile.

What's Next? …Let's Analyze

Companies transacting in the energy markets are varied and diverse, so keep in mind every company type has its own financial profile:

	Financial Institutions	Wholesale Trader	Merchant / IPP's	IOU's	Municipal / PUD's	Generation Coop's
Expected	High Profitability					Low Profitability
Revenue Base	Low Regulation		Moderate	Highly Regulated		Little to No Regulation
Capital Expenditures	Low		High	High		Varies
Equity Levels	High	Very Low		Moderately High to Moderate		Low
Economic Impacts	Macro (International)		National	Regional		Micro

What's Next? …Let's Analyze

The "Nitty Gritty Essentials" of financial statement analysis:

- ✓ Quality of Revenues & Earnings
- ✓ Quality of Equity
- ✓ Debt & Leverage
- ✓ Quality of Cash Flows
- ✓ Financial Liquidity
- ✓ Other Considerations (as you have time)

Quality of Revenues & Earnings

In assessing the quality of revenues and earnings:

- Are revenues and earnings consistent or is there volatility?
- What are revenue sources (regulated, diversified, tied to local economy)?
- Are there frequent or large adjustments made to earnings:
  - One-time gains or losses from discontinued operations
  - Impairment charges or write-offs
- Earnings versus Return on Equity (ROE)
  - Can appear to have really high earnings, but low ROE
  - ROE may be less than the rate of return allow by a state utility's commission
- What is the trend in gross and operating margin?

Quality of Revenues & Earnings

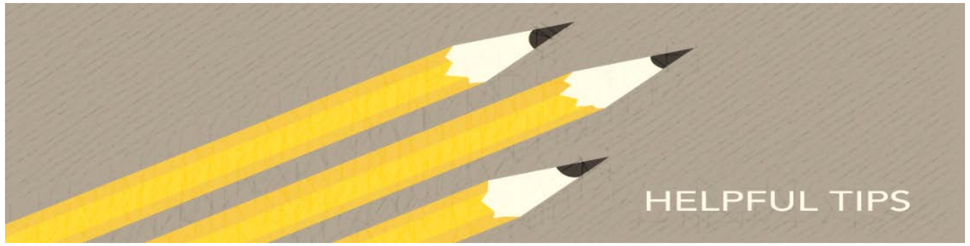
EXAMPLE

OPERATING RESULTS						
in millions $		YE 2015	YE 2014	YE 2013	YE 2012	YE 2011
Total Revenues	$	17,486	17,021	15,136	14,256	15,341
Power & Fuel	$	5,327	5,602	4,958	5,121	6,256
Gross Margin	$	12,159	11,419	10,178	9,135	9,085
% Gross Margin		69.5%	67.1%	67.2%	64.1%	59.2%
Operating Expenses	$	7,527	7,035	6,937	5,859	5,824
Operating Income	$	4,632	4,384	3,241	3,276	3,261
% Oper. Inc. Margin		26.5%	25.8%	21.4%	23.0%	21.3%
Net Income	$	2,762	2,469	1,908	1,911	1,923
% Net Income		15.8%	14.5%	12.6%	13.4%	12.5%

OPERATING RESULTS					
in millions $	YE 2015	YE 2014	YE 2013	YE 2012	YE 2011
Pre-tax ROE	17.4%	17.9%	14.6%	15.7%	16.1%
After-tax ROE	12.2%	12.4%	10.6%	11.9%	12.9%
EBIT / Interest Covg	4.1	3.7	3.2	3.3	3.2
EBITDA / Interest Covg	6.3	5.6	5.1	4.6	4.7

Quality of Equity & TNW

- For many of us, credit limits are often tied to equity or tangible net worth (TNW).
- As such, in analyzing equity and deriving a calculated TNW, equity should be adjusted for assets that are seen as encumbered or restricted.
  - Anything that may not be available to unsecured creditors in the event of a bankruptcy.
- Equity is impacted by profitability but also by impairments and write-offs, which can have significant impacts to equity levels.



Standard Industry Adjustments:

✓Goodwill and Intangibles
✓Restricted Cash (Margin, Cash Deposits, Restricted for Special Funds)

Other Items to Look for / Consider:

✓Long-term Trading Assets (Net)
✓Unamortized Debt
✓Accumulated OCI
✓Regulatory Assets
✓Impairments (Not Yet Posted)

Quality of Equity & TNW

A Tale of Two Merchant Energy Companies

TANGIBLE NET WORTH (TNW)				
in millions $		YE 2015	YE 2014	YE 2013
Total Equity	$	22,574	19,916	18,040
Goodwill & Intangibles*	$	(1,985)	(652)	(383)
Net Trading Assets, LT [1]	$	(672)	(543)	(690)
Accumulated OCI [1]	$	-	-	(56)
Restricted Cash*	$	(224)	(228)	(215)
ND Trust Fund, Net	$	(2,669)	(3,180)	(2,930)
Prepaid Pension Assets	$	(1,155)	(1,244)	(1,456)
TNW	$	15,869	14,069	12,310
TNW to Equity (%)		*70%*	*71%*	*68%*
[1] Positive Contribution to Equity Only				
S&P Rating:		A-	A-	A-
Moody's Rating		Baa1	Baa1	Baa1

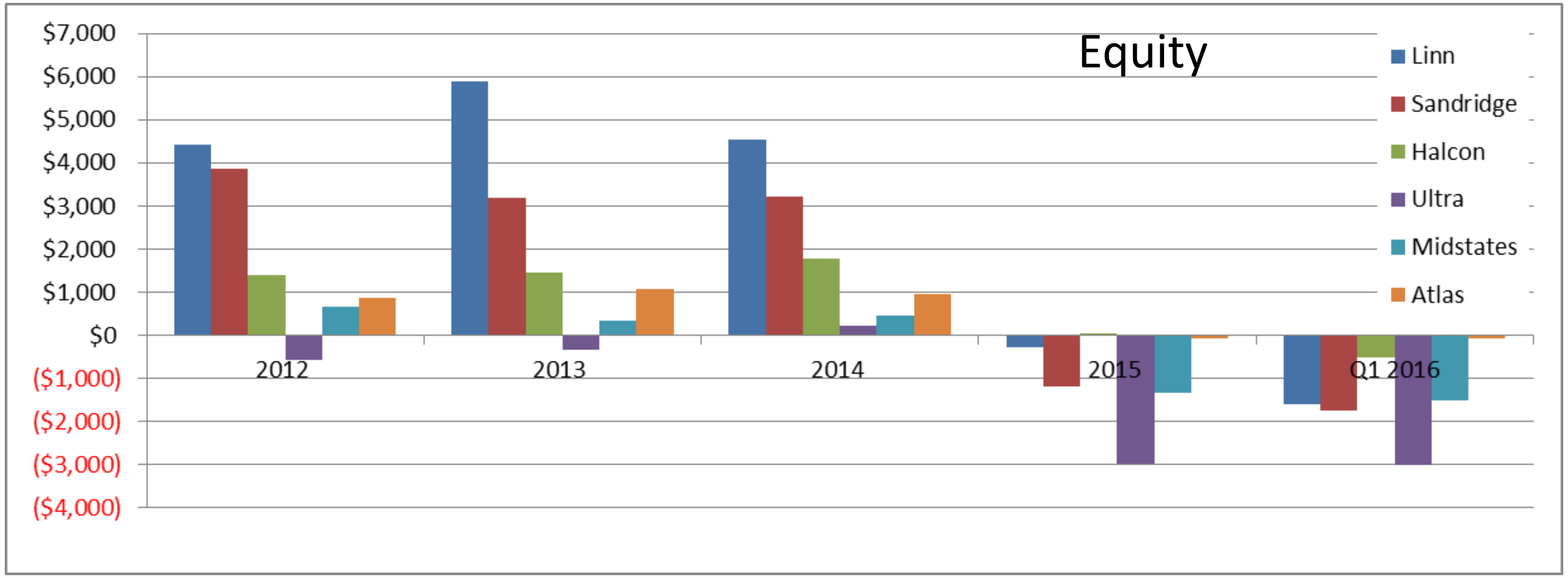
TANGIBLE NET WORTH (TNW)				
in millions C$		YE 2015	YE 2014	YE 2013
Total Equity	C$	3,361	3,284	2,906
Goodwill & Intangibles	C$	(834)	(793)	(783)
Net Trading Assets, Long Te	C$	(728)	(308)	(13)
Accumulated OCI [1]	C$	(353)	(104)	-
Margin Deposits Given	C$	(74)	(25)	(20)
Collateral Held	C$	(15)	-	-
TNW	C$	1,357	2,054	2,090
TNW to Equity (%)		*40%*	*63%*	*72%*
[1] Positive Contribution to Equity Only				
S&P Rating:		BBB-	BBB-	BBB-
Moody's Rating		Ba1	Baa3	Baa3

Quality of Equity & TNW

EXAMPLE

The Story of the Decline of E&P's Equity:

- Asset impairments and low profitability took their toll on E&P's balance sheets by imposing significant reductions in assets and equity.
- This much decline in asset and equity valve impacted the companies' ability to support their credit facilities and to access new capital.



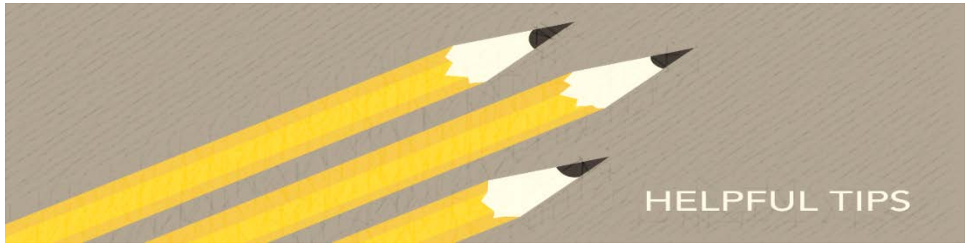
Debt & Leverage

How much debt is too much? In relation to Assets? To Equity?

✓ **Calculate a Total Debt to Total Capital Ratio**

– **Off Balance Sheet Adjustments should be included in this calculation** (requires doing some digging in the financial notes but it is worth the effort)

Remember: "One Size Does Not Fit All" (Consider the Company Type, what the debt is supporting)



Standard Off Balance Sheet Adjustments:

✓ Operating Leases
✓ Take or Pay Contractual Commitments
✓ Letters of Credit
✓ Guarantees & Other Assurances
✓ Surety Bonds

Other Items to Look for / Consider:

✓ Underfunded Pension Obligations
✓ A/R Factoring Facility Used

Debt & Leverage

EXAMPLE

TOTAL DEBT	Company Type: Merchant / IPP			
in millions $		YE 2015	YE 2014	YE 2013
Short-term Debt	$	-	-	-
Current LTD	$	481	474	1,050
Long-term Debt (LTD)	$	18,983	19,701	15,767
Total Debt	$	19,464	20,175	16,817
Debt / Capital %		*86.6%*	*66.7%*	*63.1%*
Operating Leases	$	2,955	2,461	2,880
Letters of Credit	$	1,100	746	902
Guarantees & Other Assu	$	979	1,466	2,380
Surety Bonds*	$	799	1,168	807
Total Adjusted Debt	$	5,833	5,841	6,969
Adj. Debt / Capital %		*89.4%*	*72.1%*	*70.7%*
S&P Rating:		BB-	BB-	BB-
Moody's Rating		B1	B1	B1

TOTAL DEBT	Company Type: IOU			
in millions $		YE 2015	YE 2014	YE 2013
Short-term Debt	$	105	105	171
Current LTD	$	93	8	17
Long-term Debt (LTD)	$	1,480	1,481	1,274
LTD, Other	$	52	52	98
Total Debt	$	1,730	1,645	1,559
Debt / Capital %		*53.1%*	*52.6%*	*54.6%*
Operating Leases	$	-	-	30
Letters of Credit	$	45	33	27
Total Adjusted Debt	$	45	33	57
Adj. Debt / Capital %		*53.7%*	*53.1%*	*55.5%*
S&P Rating:		BBB	BBB	BBB
Moody's Rating		Baa2	Baa2	Baa2

Debt & Leverage

Does interest expense impair profitability?

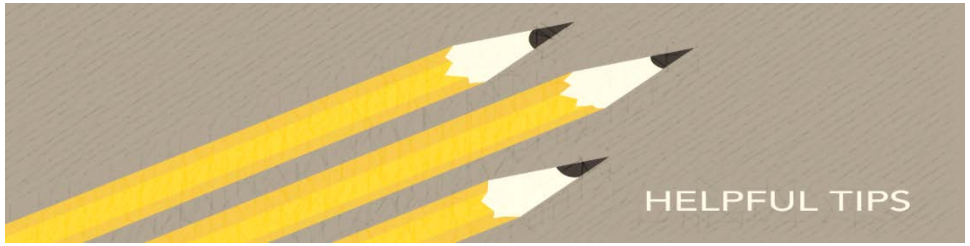
✓**Calculate EBIT interest coverage ratio**

Are there large debt maturities in the next few years?

✓**Look for Debt Maturity Schedule**

What is their debt service coverage?

✓**Calculate EBITDA / debt service coverage**



Debt Service:

+Short Debt

+Current Maturities

+Interest Expense

Debt & Leverage

Are there restrictions or covenants to how much debt can be issued by the counterparty?

- Debt to capital ratio cannot exceed a certain amount (example cannot exceed 80%)
- Total debt amount cannot exceed a certain amount (example cannot exceed $8 Billion)

Are they being mandated to reduce their debt levels?

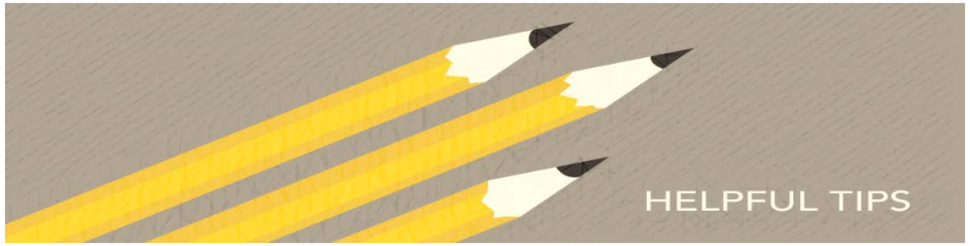
Quality of Cash Flows

Operating cash flow may be a more accurate measure of how much cash a company has generated (or used) than traditional measures of profitability such as net income.

What is the quality/sustainability of the operating cash flow?

- Is there volatility in cash flows?
- Are capital expenditures outpacing operating cash flow?
  ✓ **Calculate Free Cash Flow**

- Negative free cash flow may result in rising debt levels and strained capital structure.



Free Cash Flow:

\+ Operating Cash Flow

\- Capital Expenditures

\- Dividends

\+ Capital Contributions

Quality of Cash Flows

EXAMPLE

OPERATING & FREE CASH FLOW						
in millions $		YE 2015	YE 2014	YE 2013	YE 2012	YE 2011
Funds from Operations	$	6,208	6,038	5,174	4,182	4,576
W/C Adjustments	$	(92)	(538)	(72)	(190)	(502)
Operating Cash Flow	$	6,116	5,500	5,102	3,992	4,074
Adjusted for:						
Capital Expenditures	$	8,377	7,017	6,682	9,461	5,738
Dividends, Net	$	1,385	1,261	1,122	1,004	920
Other, Net*	$	(1,703)	(1,721)	(1,172)	(386)	(877)
Free Cash Flow	$	(1,943)	(1,057)	(1,530)	(6,087)	(1,707)

*Capital raises, dispositions, grants and other.

Total Equity	$	22,574	19,916	18,040	16,068	14,943
Total Debt	$	29,687	29,024	28,426	27,359	22,967
Debt / Capital %		*56.8%*	*59.3%*	*61.2%*	*63.0%*	*60.6%*

Financial Liquidity

Is liquidity sufficient to support operations?

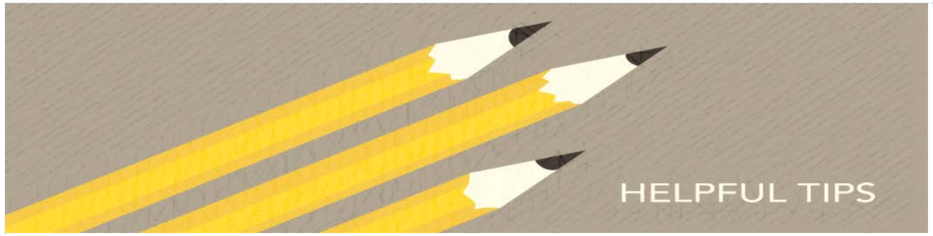
Determining sources of financial liquidity:

- ✓ **Cash and Investments (unrestricted)**
- ✓ **Bank Lines of Credit** (requires doing some digging in the financial notes but it is worth the effort)
- ✓ Parental support
  - Has there been a demonstrated history of this? Or is there a stated intention?

Financial Liquidity

AVAILABLE LIQUIDITY

in millions $	Expires		Total	Used	LC's	Available	% Used
Cash & Equivalents		$	1,017	-	-	1,017	
<u>CREDIT FACILITIES:</u>							
Credit Facility	Jul-18	$	289	-	-	289	*0%*
Credit Facility	Jun-21	$	2,200	-	824	1,376	*37%*
Total Credit Facilities		$	2,489	-	824	1,665	*33%*
Total Available Liquidity		$	3,506	-	824	2,682	

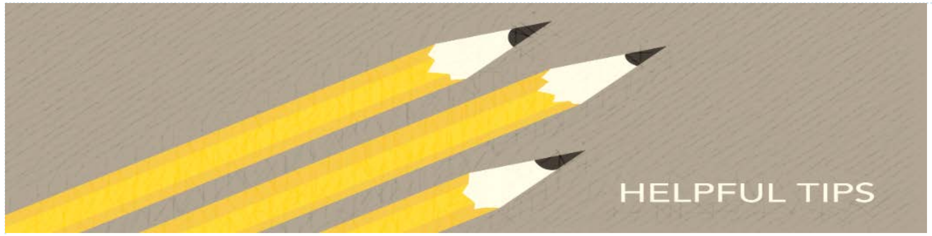


In evaluating bank lines of credit consider :
- ✓How much of the facility is used
- ✓When do the lines expire
- ✓Expectation of the lines being rolled forward
- ✓Were credit facilities secured by company assets (asset value determined a company's borrowing base)

Financial Liquidity

Working Capital:

- A company may have a great deal of fixed assets and profitability but be short of liquidity if its assets cannot readily be converted into cash.
- Positive working capital is a measure of the sufficiency of funds available to satisfy both maturing short-term debt and upcoming operational expenses.
- Lack of positive working capital may be a signal of deteriorating financial liquidity.



Try calculating: unrestricted cash and investments to average approximation of daily operating expenses

Financial Liquidity

EXAMPLE

Recent E&P Bankruptcy:	Reason for Filing for Bankruptcy:
• Sandridge Energy	Violation of bank loan covenants
• Linn Energy	Filed on the day that their borrowing base was due to be reduced (underwater)
• Ultra Petroleum	Broke bank loan covenants and failed to make principal and interest payments on bonds
• Halcon Resources	Bondholders forced them into filing under a "Restructuring Support Agreement"
• Midstates Petroleum	Borrowing base put them underwater on their bank facility.
• Atlas Resources	Creditors forced them to file

Many times, it all boils down to liquidity in the end.

Other Considerations

Physical Liquidity:

- Assess generation by type and location
- Is the company exposed to spark spread risk?
- Have fuel sources been sourced? How long?
- Is a large proportion of purchases / sales exposed to short-term price volatility?
- Age and condition of generation
  - Operational risk exposes company to wholesale market
  - Increased level of capital expenditures

Other Considerations

Regulatory Issues:

- How friendly are the companies regulators?
- Does the company tend to get their requested rate increases?
- Do the regulators allow for a reasonable rate of return?

Legal Issues & Other Contingencies

- Does the company have numerous and material outstanding lawsuits?
- Any superfund sites associated with the company’s operations?

Summary

- Credit reviews should use all available information:
  - Ratings / news / market based indicators
  - Financial statement information
- One must understand the meaning and context of this information.
- Financial analysis is an integral part of counterparty review that should not be passed over – you need to do your homework!
- Credit analysis is a matter of "knowing the story" as much as "finding the answer".
- One should be able to determine and document the level of a counterparty's financial strength / creditworthiness.
- Credit limit determination should not simply be formula driven.
- One needs to be aware of what causes companies to fail.

QUESTIONS?

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