Moody's Adjustments and Financial Ratios

Andrew Holmes

May 2014

Moody's adjustments and financial ratios

Meet your Instructor…

Andrew Holmes

- Director, Leveraged Finance, Credit Suisse First Boston, New York and London
- Equity capital markets and Leveraged Finance, JP Morgan, New York
- MBA from University of Chicago
- 5 years in asset management

Moody's Corporation

MOODY'S

MOODY'S INVESTORS SERVICE

- Credit Ratings
  - Corporate
  - Financial Institutions
  - Structured
  - Municipal/Public
- Credit Research

MOODY'S ANALYTICS

- Credit Research & Risk Measurement
- Economic & Consumer Credit Analytics
- Enterprise Risk Solutions
- Structured Analytics & Valuations
- Professional Services
- Training & Certification

Session Outline
Moody's adjustments and financial ratios

Case Exercise

Financial statement adjustments

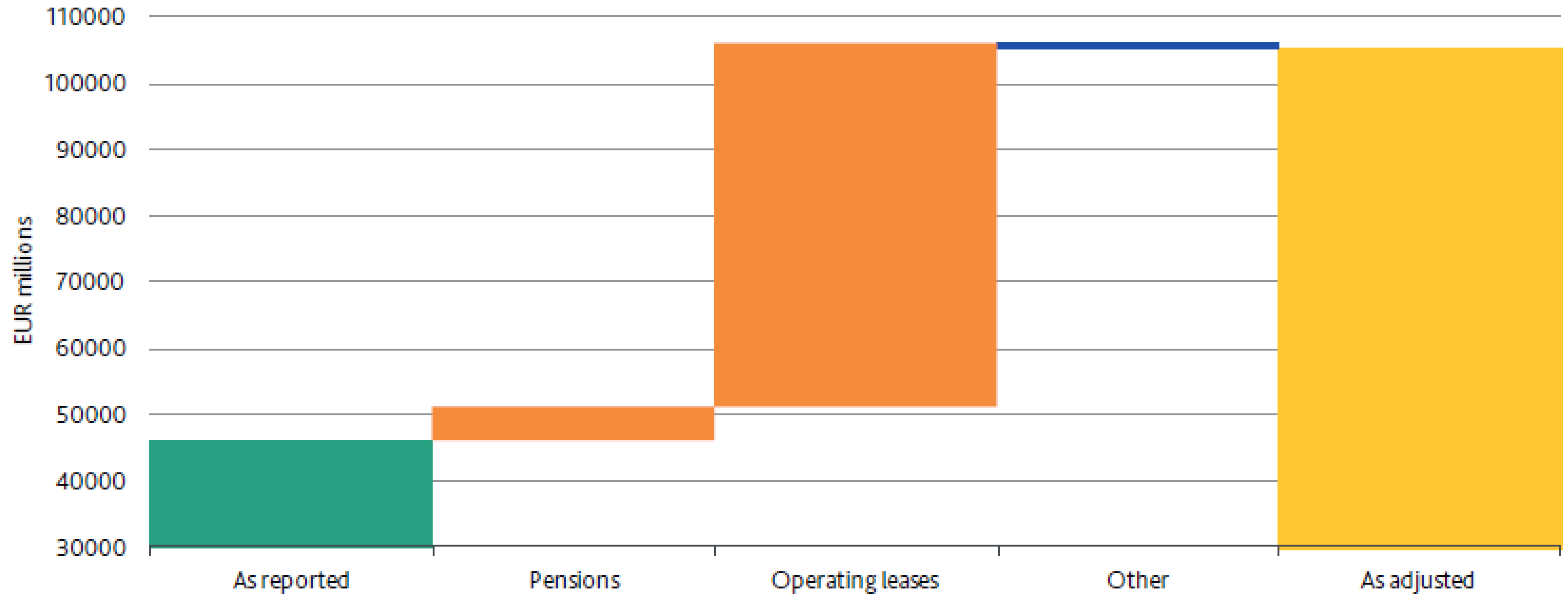
Calculate total debt, EBITDA and total debt/EBITDA

Why the need for adjustments?

Debt adjustments for 9 major retailers

EXHIBIT 4

2011/12[6] changes to gross debt as a result of Moody's adjustments



Source: Company Annual Reports and Moody's Financial Metrics

Financial Statement Data Adjustments

DECEMBER 21, 2010

GLOBAL CORPORATE FINANCE

MOODY'S
INVESTORS SERVICE

RATING IMPLEMENTATION GUIDANCE

Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations

Standardized Adjustments to Improve Global Consistency

Table of Contents:

Summary

Moody's adjusts financial statements to better reflect the underlying economics of transactions and events and to improve the comparability of financial statements. We compute credit-relevant ratios using adjusted data and base our debt ratings, in part, on those ratios.

Moody's Financial Statement Adjustments

	US GAAP	IFRS	JGAAP
Defined Benefit Pensions	X	X	X
Operating Leases	X	X	X
Finance Leases			X
Capitalized Interest	X	X	X
Capitalized Development Cost		X	
Interest Expense: discount of LT liabilities		X	
Hybrid Securities	X	X	X
Securitizations	X	X	X
Inventory on LIFO cost basis	X		
FFO and working capital consistency		X	
Unusual and non-recurring items	X	X	X
Other analytical non-standard adjustments	X	X	X

Why the Need for Adjustments?

- Better capture the underlying economics
- Improve comparability
- Segregate unusual or non-recurring items
- Use estimates or assumptions that are more prudent

Session Outline
Moody's adjustments and financial ratios

1. Financial Statement Adjustments
2. **Operating Lease Adjustment**
3. Defined Benefit Plan Adjustment
4. Other Possible Adjustments
5. Analyzing and Rating Hybrid Instruments
6. Key Financial Ratios

Operating Lease Adjustment

The Reporting Problem

In Moody's view, incurring operating lease obligations reduces a company's borrowing capacity.

For operating leases, companies are contractually obligated for lease payments and a failure to make a lease payment often triggers events of default, as if the obligation were debt.

Financial statement presentation of operating leases and capital leases is very different:

» Accounting standards distinguish between operating and capital leases using arbitrary tests

Moody's Analytical Response

» **Balance sheet:** To recognize the off-balance sheet operating lease liability as debt and an increase in fixed assets.

» **Income statement:** To reclassify the rent expense into to interest expense and depreciation expense.

» **Cash flow statement:** To reclassify the principal portion of the lease payment from operating cash flow (CFO) to a financing cash outflow (CFF). We also simulate capital expenditure for newly acquired leased assets by increasing the capital expenditures line in investing cash flows (CFI).

Operating Lease Adjustment

Balance Sheet: Add both debt and fixed assets (usually gross plant, property and equipment). Compute debt by multiplying current rent expense by a factor of 5x, 6x, 8x, or 10x, or, use the present value (PV) of the minimum lease commitments (incremental borrowing rate as the discount rate) if higher.

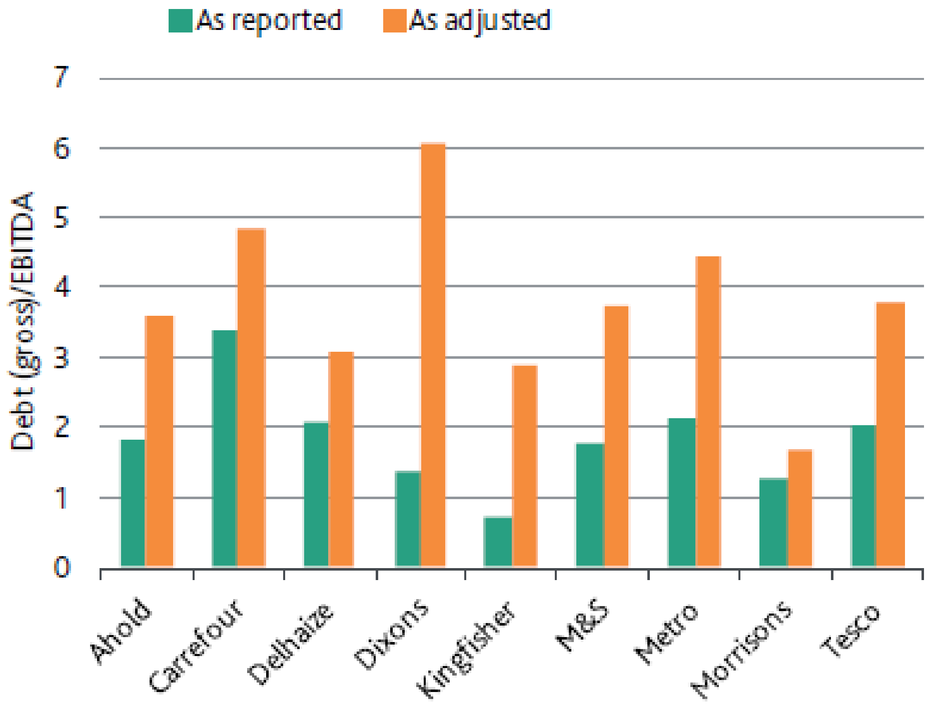
Income Statement: Reclassify one-third of the rent expense to interest expense and remaining two-thirds to “Depreciation - Capitalized Operating Leases” (a component of operating profit), and adjust operating expenses (or cost of goods sold and selling, general & administrative expenses) proportionally.

Cash Flow: Reclassify the principal portion of lease payments from operating cash flow (CFO) to a financing cash outflow (CFF). Simulate capital expenditure for newly acquired leased assets by increasing the capital expenditures line in investing cash flows (CFI) with a concomitant borrowing in CFF to fund the capital expenditures.

Lease adjustments – effect on Debt/EBITDA

EXHIBIT 1

2011/12[5] adjusted leverage is higher than reported



Source: Company Annual Reports and Moody's Financial Metrics

Case Exercise

Operating Leases

Chesapeake ENERGY

Operating Lease Adjustment

Examine how adjusting for off-balance sheet leases affects elements of profitability, interest coverage, and leverage

Session Outline

Moody's adjustments and financial ratios

Defined Benefit Plan Adjustment (US)

The Reporting Problem

Current accounting standards fail to recognize on the sponsor's balance sheet the sponsor's economic obligation to its pension trust and employees because of extensive artificial smoothing mechanisms.

Artificial smoothing also distorts the measurement of pension expense.

On the cash flow statement, standards require companies to classify cash contributions to the pension trust as an operating cash outflow, including the portion that is reducing plan under funding, which arguably represents the reduction of debt. As a result, cash from operations (CFO) is diminished for a contribution to the trust that is more akin to a financing activity.

Moody's Analytical Response

» Because of the contractual nature of pension obligations, we view the pension liability as "debt - like".

» Thus, we classify it as debt on the balance sheet and include it in the computation of ratios that use debt.

» On the income statement, our goal is to report pension expense absent the effects of artificial smoothing, such as the amortization of prior service cost and actuarial gains and losses.

» On the cash flow statement, we view cash contributions in excess of service cost as the repayment of (pension) debt.

Differences between Pensions and OPEBs

Issue	Defined Benefit Pensions	OPEB
Statutory funding requirement	Yes	No
Priority of claim in bankruptcy:		
Chapter 11	Pari Passu with Senior Unsecured for both	· Subject to negotiation with Employer (can be modified)*
Chapter 7		· Other Unsecured claims *
Pre-Funding is deductible for tax purposes	Yes	No
Ability to make modifications to or cancel plans to control costs	Very Limited	Limited only for some plans
Insured by the PBGC	Yes	No

** For both Chapter 11 and 7 bankruptcy filings, the postretirement benefit costs incurred during the bankruptcy process are treated as administrative expenses (highest priority for an unsecured claim). Additionally, in Chapter 11, not only can the benefits be modified, but also terminated, both subject to court approval.*

BT's long-term funding

	Notes	2010 £m	2009[a] £m	2008[a] £m
Non current liabilities				
Loans and other borrowings	18	9,522	12,365	9,818
Derivative financial instruments	19	533	711	1,014
Retirement benefit obligations	29	7,864	3,973	108
Other payables	20	804	794	707
Deferred tax liabilities	22	1,456	1,728	2,513
Provisions	21	707	466	265
		20,886	**20,037**	**14,425**
Equity				
Ordinary shares	24	408	408	420
Share premium	24	62	62	62
Capital redemption reserve		27	27	15
Other reserves	25	757	1,301	(527)
Retained (loss) earnings		(3,904)	(1,656)	5,439
Total parent shareholders' (deficit) equity		**(2,650)**	**142**	**5,409**
Minority interests	23	24	27	23
Total (deficit) equity[b]		**(2,626)**	**169**	**5,432**
		18,260	**20,206**	**19,857**

Time to call in the receivers?

Are the markets nuts?


BT/A LN GBp ↑ AT 139.5 +1.7 L L139.4/139.5L 13.5Kx37. Equity DES
DELAY Vol 6,644,137 Op 137.1 L Hi 139.5 L Lo 137.1 L Prev 137.8 XD

DESCRIPTION Page 1/11

BT/A LN BT GROUP PLC Telephone-Integrated
BBGID BBG000C05R82 98) Generate Report

BT Group plc provides telecommunications services. The Company provides local and long-distance telephone call products and services in the UK, international telephone calls to and from the UK, broadband network solutions and web hosting to corporate customers, network ADSL, ISDN, and IP services to communication companies and narrowband and broadband internet access and related services.

STOCK DATA			GBp
1)GPO	Price		139.5
	52Wk High	11/12/2009	151
	52Wk Low	5/ 7/2010	108.4
	YTD change		4.5
	YTD % Change		3.33%
	Round Lot		1
2)FA	Shares Out	8/ 3/2010	7759.545M
	Market Cap	GBP	10824.56M
	Float		7514.75M
3)TRA	1 Yr Total Return		8.57%
	BETA vs. UKX		.87
4)OMON	Options Available		

DIVIDENDS	Semi-Annual		GBp
5)DVD	12 Mth Yld - Net		4.95%
	Dividend Growth	5YR	-7.88%
	Ex-Date	Type	Amt
	8/11/10	Final	4.60

EARNINGS				GBP
6)ERN	Ann Date	11/11/10 (C)		
	Trailing 12mo EPS			.142
7)EE	Est EPS		3/2011	.167
	P/E	9.81	LT Growth	8.99
	Est P/E	8.35	Est PEG	.93

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2010 Bloomberg Finance L.P.
SN 638846 G654-1464-0 12-Aug-2010 11:55:42

What a year and a change in assumptions can do...

The assumption for RPI has been assessed by reference to yields on long-term fixed interest and index-linked Government bonds and has regard to Bank of England published inflationary expectations. CPI is assessed at a margin below RPI taking into account long-term trends. The impact of using CPI instead of RPI is to reduce BTPS liabilities at 31 March 2011 by £3.5bn. In determining the most appropriate manner

Happy days!

		2011 £m	2010 £m
Non-current liabilities			
Loans and other borrowings	20	9,371	9,522
Derivative financial instruments	21	507	533
Retirement benefit obligations	23	1,830	7,864
Other payables	22	831	804
Deferred tax liabilities	24	1,212	1,456
Provisions	25	807	707
		14,558	**20,886**
Equity			
Ordinary shares	27	408	408
Share premium	27	62	62
Capital redemption reserve		27	27
Other reserves	28	658	757
Retained earnings (loss)		770	(3,904)
Total parent shareholders' equity (deficit)		**1,925**	**(2,650)**
Non-controlling interests	26	26	24
Total equity (deficit)		**1,951**	**(2,626)**
		16,509	**18,260**

Fast forward – here we go again...

	Notes	2013 £m	2012 £m
Current liabilities			
Loans and other borrowings	24	1,736	2,887
Derivative financial instruments	26	74	89
Trade and other payables	17	5,521	5,962
Current tax liabilities		100	66
Provisions	18	120	251
		7,551	9,255
Total assets less current liabilities		**17,275**	**14,693**
Non-current liabilities			
Loans and other borrowings	24	8,277	7,599
Derivative financial instruments	26	802	757
Retirement benefit obligations	19	5,856	2,448
Other payables	17	883	875
Deferred tax liabilities	10	1,209	1,100
Provisions	18	510	606
		17,537	13,385
Equity			
Ordinary shares		408	408
Share premium		62	62
Own shares	20	(832)	(1,018)
Other reserves	27	1,790	1,756
Retained (loss) earnings		(1,690)	100
Total (deficit) equity		**(262)**	**1,308**

OUCH!!!

Do the markets adjust for pensions?

BT's (adjusted!) fiscal 2010 (to March) was £5.6bn

Company	EV/ 2009A EBITDA*
Deutsche Telekom	5.4x
France Telecom	4.9x
Telefonica	5.7x
Sector Average	6.2x

* As of July 2010

- Is the market over or undervaluing BT's equity?
- Does the following disclosure help (figures as of March 2010)?
  - Cash and short term investments of £1.86bn
  - Short term debt of £3.27bn

	Notes	2010 £m	2009[a] £m	2008[a] £m
Operating costs before specific items include the following:				
Contract and financial review charges[e]		–	1,598	–
Leaver costs[c]		142	204	127
Research and development expenditure[d]		1,177	1,021	857
Rental costs relating to operating leases		451	426	423

Session Outline
Moody's adjustments and financial ratios

1. Financial Statement Adjustments
2. Operating Lease Adjustment
3. Defined Benefit Plan Adjustment
4. **Other Possible Adjustments**
5. Analyzing and Rating Hybrid Instruments
6. Key Financial Ratios

Capitalized Interest

Balance Sheet: We adjust the balance sheet to reduce PP&E by the amount of any interest capitalized during the period, adjust deferred taxes, and reduce retained earnings by the after-tax cost of the additional interest expense recognized on the income statement.

Income Statement: We adjust the income statement to increase interest expense by the amount of any capitalized interest during the current period, and reduce applicable tax expense.

Cash Flow: We adjust the cash flow statement to reclassify any capitalized interest from capital expenditures, an investing cash outflow (CFI), to interest expense, an operating cash outflow (CFO).

Case Exercise

Capitalized interest

How much interest expense did Chesapeake capitalize in 2012 and what was the effect on its cash flow?

Capitalized Development Costs (IFRS)*

Balance Sheet: We adjust the balance sheet to reduce intangible assets by the cumulative amount of development costs capitalized, adjust deferred taxes accordingly, and reduce retained earnings by the cumulative amount of development costs capitalized, net of tax.

Income Statement: We adjust the income statement to increase operating expenses by the amount of capitalized development costs for the period, remove the amortization charge related to the capitalized development costs (including any impairment charge), and adjust applicable tax expense.

Cash Flow: We adjust the cash flow statement to reclassify capitalized development costs from an investing cash outflow (CFI) to an operating cash outflow (CFO).

** All R&D for intangibles expensed per US GAAP with minor exceptions*

Be careful – GAAP allows some Costs to be Capitalized

CHESAPEAKE ENERGY CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

10. Supplemental Disclosures About Natural Gas, Oil and NGL Producing Activities (Unaudited)

Net Capitalized Costs

Evaluated and unevaluated capitalized costs related to Chesapeake's natural gas, oil and NGL producing activities are summarized as follows:

	December 31,	
	2012	2011
	($ in millions)	
Natural gas and oil properties:		
Proved	$ 50,172	$ 41,723
Unproved	14,755	16,685
Total	64,927	58,408
Less accumulated depreciation, depletion and amortization	(33,009)	(27,208)
Net capitalized costs	$ 31,918	$ 31,200

Unusual and Non-Recurring Items

Balance Sheet: We adjust the balance sheets in those instances when it is material to our analysis.

Income Statement: We adjust the income statement to reclassify the effects of unusual or non-recurring revenues, gains or costs, net of the related tax effect, to a special income statement caption that is below net profit after tax. Our computation of key ratios excludes amounts in the special income statement caption.

Cash Flow Statement: We adjust the cash flow statement to reclassify the effects of unusual or non-recurring operating cash inflows and outflows to a special caption in the operating section of the cash flow statement. Our computation of key ratios excludes amounts in the special cash flow statement caption.

Chesapeake's other adjustments

DEBT ADJUSTMENTS

We make standard and other analytical adjustments to reported debt. These adjustments add $8.3 billion to CHK's reported debt of $13.5 billion at March 31, 2013 and are comprised of:

VPPs - Add $3 billion to debt, 109 mmboe to PD reserves, 92 mboe/d to average daily production and $0.9 billion to LTM revenues and LTM retained cash flow (RCF). p145

Convertible Preferred Stock - Add $1.5 billion to debt for Hybrid basket B (50% debt) treatment. P102

CHK Utica Transaction - Add $1.25 billion to debt for preferred shares and ORRI obligation. The company p126 transferred approximately 700,000 acres of Utica Shale acreage to CHK Utica, L.L.C, an unrestricted, non-guarantor subsidiary that CHK formed in October 2011. In the fourth quarter of 2011 CHK Utica issued 1.25 million preferred shares and an obligation to deliver a 3% ORRI in up to 1,500 net wells to be drilled in exchange for $1.25 billion. The preferred pays 7% dividends and that rate is subject to increase in limited circumstances if the cash flow from the assets owned by CHK Utica are insufficient to fund the dividend in full. The preferred shares are redeemable at CHK's option at a value equal to the greater of a 10% internal rate of return or a return on investment of 1.4x, inclusive of dividends paid. The redemption value steps up if not redeemed before October 31, 2018. Given the preferred shares priority claim to the Utica acreage and the strategic importance of that play, the ongoing cash dividend requirements and the incentive to redeem these securities by 2018, we view this obligation as effectively debt in our analysis of Chesapeake.

CHK Cleveland-Tonkawa Transactions - Add $1.25 billion to debt, consistent with rationale for CHK Utica. p125

Operating Leases - Add $1.1 billion to debt. This adjustment is relatively large for an E&P company primarily due to the sale/leaseback transactions on CHK's drilling rigs and compression equipment. p112

The remaining adjustments include increasing reported debt to par value and reclassifying a finance lease from other liabilities to debt. pp102 and 96

Session Outline
Moody's adjustments and financial ratios

1. Financial Statement Adjustments
2. Operating Lease Adjustment
3. Defined Benefit Plan Adjustment
4. Other Possible Adjustments
5. **Analyzing and Rating Hybrid Instruments**
6. Key Financial Ratios

Chesapeake's preferred stock adjustment

» Chesapeake's 2012 balance sheet shows the following in preferred stock:

EQUITY:		
Chesapeake Stockholders’ Equity:		
Preferred stock, $0.01 par value, 20,000,000 shares authorized:		
7,251,515 shares outstanding	3,062	3,062

» In addition there is $1,911 of contingent convertible senior notes:

2.75% contingent convertible senior notes due 2035 (d)	396	396
2.5% contingent convertible senior notes due 2037 (d)	1,168	1,168
2.25% contingent convertible senior notes due 2038 (d)	347	347

» Moody’s considers the preferred stock to be debt and allocates half of the convertible stock to debt and half to equity

Moody's Hybrid Tool Kit

Hybrid instruments analyzed by Moody's Hybrid Capital Group

Classification of hybrid securities based on following:

- Does the hybrid absorb losses for a "going" concern?
- Does the hybrid absorb losses for a "gone" concern?
- Is the loss absorbing capital there when needed?

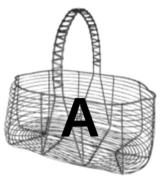
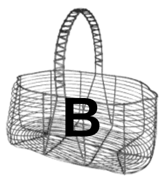
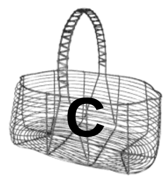
Loss Absorption – key points

- Coupon payments – cumulative or non-cumulative?
- Existence of coupon skip triggers?

Assign a basket from A to E on the continuum

- A is most debt-like while E is most equity-like

Hybrid Equity Credit

Level of Equity Credit				
0%	25%	50%	75%	100%
				

Generic Hybrid Examples

BASKET	INSTRUMENT CHARACTERISTICS	EXAMPLE FROM PAGE 5
A	20-year subordinated debt with optional cumulative deferral	#1
B	Perpetual or very long-dated subordinated debt with mandatory cumulative coupon deferral tied to the breach of weak triggers	#2
	Perpetual or very long-dated subordinated debt with optional cumulative deferral if common dividend has been suspended for one year	#3
	30-year subordinated debt with fully optional cumulative deferral	#4
	Perpetual or very long-dated subordinated debt with fully optional cumulative deferral	#5
	Perpetual or very long-dated subordinated debt with optional and mandatory cumulative deferral tied to the breach of strong triggers	#6
C	Perpetual or very long-dated preferred securities with fully optional cumulative deferral	#7
	30-year preferred security with fully optional non-cumulative coupon suspension	#8
	Perpetual or very long-dated preferred security with optional and mandatory cumulative deferral	#9
	Perpetual or very long-dated preferred security with optional non-cumulative coupon suspension if common dividend has been suspended for one year	#10
	Perpetual or very long-dated preferred security with mandatory non-cumulative coupon suspension tied to the breach of a balance sheet loss trigger	#11
	Perpetual or very long-dated preferred security with fully optional non-cumulative coupon suspension issued by a non-bank	#12
D	Perpetual or very long-dated preferred security with fully optional non-cumulative coupon suspension issued by a bank	#12
	Perpetual or very long-dated preferred security with fully optional cumulative deferral and mandatory non-cumulative suspension tied to the breach of strong triggers	#13
E	Perpetual preferred securities with fully optional and mandatory strong non-cumulative coupon suspension with the possibility for a permanent principal write-down or conversion into a fixed number of shares upon breach of pre-determined triggers	n/a

Hybrid Security Analysis

The Reporting Problem

- Although accounted for as debt, equity or minority interest, hybrid securities have characteristics of both debt and equity instruments.
- For some instruments, accounting standards focus on legal form, even though the economics of these instruments suggest a different classification.
- For example, standards classify certain preferred securities as 100% equity even though these instruments have important attributes of debt.

Moody's Adjustment

- **Balance Sheet:** Reclassify hybrid securities to either debt or equity in accordance with the hybrid basket treatment assigned.
- **Income statement:** Adjust interest expense in accordance with the hybrid basket treatment assigned, e.g. reclassify preferred dividends to interest expense in the case of hybrid securities considered to be debt-like.
- **Cash flow statement:** Based on the hybrid basket treatment, reclassify preferred dividends (a financing cash outflow) to interest expense (an operating cash outflow) for the calculated debt portion (or visa versa in the case of equity).

General Guidelines

Determine Issuer Type and Base Rating

- For Investment grade use senior unsecured rating
- For Sub-investment grade use corporate family rating

For Senior Unsecured Rating of Baa3 or above

- Subordinated debt is 1 notch lower
- Preferred stock is 2 notches lower

For Corporate Family of Ba1 or below

- Subordinated debt is 2 notches lower
- Preferred stock is 3 notches lower

Genting's hybrid

Genting's 2012 equity disclosure

EQUITY AND LIABILITIES			
Equity Attributable to Equity Holders of the Company			
Share capital	34	**371.9**	371.6
Treasury shares	35	**(210.3)**	(209.6)
Reserves	36	**21,538.1**	17,456.7
		21,699.7	17,618.7
Perpetual capital securities of a subsidiary	37	**5,789.5**	-
Non-controlling interests		**16,979.4**	15,548.2
Total Equity		**44,468.6**	33,166.9

Moody's view

Details of Proposed Bond

The company intends to issue a perpetual equity security. Details of the issuance is as follow:

Issuer:	Genting Singapore PLC
Issue:	SGD Perpetual Capital Securities
Tenor:	Perpetual
Ranking:	Subordinated
Distribution:	Semi-annual in arrears, deferrable and accumulated (dividend and payment or buyback of further junior or parity obligations are not allowed if deferred distribution remains)
Listing:	SGX-ST

Based on the terms of the instrument, Moody's will treat it as a composite of 50% equity and 50% debt for the purpose of calculating financial leverage.

We have assigned a (P)Baa3/Stable rating to the instrument, 2-notch below GENS's issuer rating. The rating reflects the underlying terms of the instrument including:

» Deeply subordinated nature of the proposed instrument, where it ranks on par with preference shares in the event of a wind-up.

» Optional deferral of coupon payments (cumulative if deferred), where a dividend stopper is in place if a coupon is deferred.

» No events of default or acceleration.

Session Outline
Moody's adjustments and financial ratios

1. Financial Statement Adjustments
2. Operating Lease Adjustment
3. Defined Benefit Plan Adjustment
4. Other Possible Adjustments
5. Analyzing and Rating Hybrid Instruments
6. **Key Financial Ratios**

Moody's Key Financial Ratio Medians
Global Non-Financial Corporations, 2012

Aggregate Metrics by Rating Category

	EBITA / Average Assets	Operating Margin	EBITA Margin	EBITA / Interest Expense	(FFO + InExp) / IntExp	
Aaa	19.5%	18.9%	21.9%	25.1	24.0	
Aa	11.6%	14.5%	17.1%	14.3	15.6	
A	11.5%	13.5%	15.0%	8.9	10.4	
Baa	9.6%	12.5%	13.4%	5.3	6.8	
Ba	9.2%	12.5%	13.8%	3.4	4.7	
B	7.0%	8.4%	10.1%	1.6	2.6	
Caa-C	3.0%	3.2%	4.2%	0.5	1.4	
	Debt / EBITDA	**DEBT / Book Capitalization**	**FFO / Debt**	**Retained Cash Flow / Net Debt**	**CAPEX / Depreciation**	**Revenue Volatility**
Aaa	0.8	20.8%	81.6%	76.5%	1.1	8.0
Aa	1.6	34.4%	48.6%	27.6%	1.2	10.5
A	1.9	40.0%	41.5%	34.1%	1.1	10.0
Baa	2.5	43.9%	30.0%	28.6%	1.2	13.0
Ba	3.1	50.8%	23.6%	23.7%	1.1	18.0
B	5.0	69.8%	12.1%	12.7%	0.9	16.0
Caa-C	7.6	100.0%	3.9%	3.4%	0.7	15.0

MOODY'S
ANALYTICS

Which ratios would you use to analyze an energy company?

Key credit ratios in the Integrated sector

Factor 5 Mapping: Financial Metrics

	Aaa	Aa	A	Baa	Ba	B	Caa
Retained Cash Flow/Net Debt (3-year average)	> 60%	40% to 60%	30% to 40%	20% to 30%	10% to 20%	5% to 10%	< 5%
EBIT/Interest Expense (3-year average)	>20x	15x to 20x	8x to 15x	3x to 8x	2x to 3x	1x to 2x	<1x
Gross Debt / Total Proved Reserves	<$3.50	$3.50 to $4.50	$4.50 to $5.50	$5.50 to $6.50	$6.50 to $7.50	$7.50 to $10.00	> $10.00
Gross Debt/Capital	<25%	25% to 35%	35% to 45%	45% to 55%	55% to 65%	65% to 75%	> 75%

Shell's metrics (Q4 2011)

Factor 5: Financial Metrics (40%)			
a) Retained Cash Flow / Net Debt [1]		51%	
b) EBIT / Interest Expense [1]			13.8x
c) Gross Debt / Total Proved Reserves			$5.0
d) Gross Debt / Total Capital		32%	

Key credit ratios in the independent E&P sector

Factor 3. Leverage and Cash Flow Coverage (40%)

	Sub- factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa	Ca
E&P Debt / Average Daily Production	10%	< $4.5k	$4.5k - $9k	$9k - $15k	$15k - $21k	$21k - $27k	$27k - $33k	$33k - $39k	≥$39k
E&P Debt / PD boe Reserves	10%	< $1	$1 - $3	$3 - $5	$5 - $7	$7 - $9	$9 - $12	$12 - $15	≥$15
RCF / Total Debt	10%	≥125%	100% - 125%	75% - 100%	50% - 75%	35% - 50%	20% - 35%	10% - 20%	< 10%
EBITDA / Interest Expense	10%	≥ 35x	25x - 35x	15x - 25x	10x - 15x	6x - 10x	2x - 6x	0.5x - 2x	< 0.5x

Range Resource's metrics (Q4 2011)

Factor 3: Leverage And Cash Flow Coverage (40%)	
a) E&P Debt / Average Daily Production Quarterly	$22,923
b) E&P Debt / PD boe Reserves	$4.6
c) Retained Cash Flow / Total Debt	31.6%
d) EBITDA / Interest Expense	4.5x

Moody's ANALYTICS

…versus, for example, refineries

Refinery Profitability (15%)

Subfactor	Weight	Aaa	Aa	A	Baa	Ba	B	Caa
EBIT / Total throughputs barrels (3-year Average) $/bbl	15%	≥12	9 - 12	7 - 9	5 - 7	3 - 5	2 - 3	<2

Financial Flexibility (35%)

Subfactor	Weight	Aaa	Aa	A	Baa	Ba	B	Caa
Debt/Complexity Barrels ($/bbl)	10%	<25	25 - 175	175 - 325	325 - 475	475 - 625	625 - 775	≥775
EBIT (3-year Average) / Interest Expense	15%	≥30x	30x - 20x	20x - 10x	10x - 4x	4x - 2x	2x - 1x	<1x
RCF (3-year Average) /Debt	10%	≥50%	50% - 40%	40% - 30%	30% - 20%	20% - 10%	10% - 0%	<0%

…or unregulated utilities and power companies

Unregulated Utilities

Factor 4: Financial Strength Metrics – 40%

3-year Average	Aaa	Aa	A	Baa	Ba	B	Caa	Sub-Factor Weighting
CFO pre-W/C + Interest/Interest	≥15.0x	9.0x - 14.9x	6.0x - 8.9x	3.5x - 5.9x	1.8x - 3.4x	1.0x - 1.7x	<1.0x	10.00%
CFO pre-W/C/ Debt	≥70%	45% - 69%	28% - 44%	17% - 27%	10% - 16%	5% - 9%	<5%	12.50%
RCF / Debt	≥50%	32% - 49%	20% - 31%	12% - 19%	7% - 11%	3% - 6%	<3%	12.50%
FCF / Debt	≥50%	20% - 49%	10% - 19%	0% - 9%	(15%) - 0%	(30%) - (16%)	<(30%)	5.00%

Power Companies

Factor 4: Financial Strength Metrics – 50%

3-year Average	Aaa	Aa	A	Baa	Ba	B	Caa	Sub-Factor Weighting
CFO pre-WC + Interest /Interest	≥ 18.0x	12.0x - 18.0x	7.0x - 11.9x	3.6x - 6.9x	2.0x - 3.5x	1.0x -1.9x	< 1.0x	15.00%
CFO pre-WC/ Debt	≥90%	61% - 90%	36% - 60%	21% -35%	13% - 20%	5% -12%	< 5%	20.00%
RCF/ Debt	≥60%	45% - 60%	25% - 44%	15% -24%	8% - 14%	3% -7%	<3%	7.50%
FCF/Debt	≥ 50%	35% - 50%	22% - 34%	12% - 21%	0%-11%	(30%)-0%	< (30%)	7.50%

Q & A

moodysanalytics.com

Thank You!

For more information, please contact us

This Seminar

Andrew Holmes

andrew.holmes@moodys.com

Tailored Training Solutions

Shawn Gregrich

shawn.gregrich@moodys.com