MOODY'S INVESTORS SERVICE

CROSS-SECTOR RATING METHODOLOGY

# Financial Statement Adjustments in the Analysis of Non-Financial Corporations

This revised cross-sector rating methodology replaces the version with the same name published on December 22, 2015. We have 1) clarified that capitalized interest is reclassified from investing cash flow to operating cash flow in the cash flow statement; 2) clarified that capitalized development costs, other than software, are viewed as an operating expense; and 3) clarified that reverse factoring arrangements are an example of a non-standard adjustment. No other changes have been made to the content of this methodology.

Table of Contents:



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## Summary

This cross-sector rating methodology explains Moody's approach to making financial statement adjustments for non-financial corporations[1]. We adjust companies reported financial statements to improve analytical insight from the perspective of assessing credit risk and to improve the comparability of financial data between peers. When computing credit-relevant ratios, we use adjusted data and base our ratings, in part, on those ratios.[2]

Our adjustments do not imply that a company's financial statements fail to comply with applicable accounting rules. Our goal is to enhance the analytical value of financial data for credit analysis. We recognize that achieving full comparability of financial statements on a global basis is wholly impossible due to different measurement, recognition, presentation and disclosure practices that exist within and across various countries, regions and accounting regimes. However, where our key metrics may be significantly affected by differing accounting treatments that are generally well disclosed, we make adjustments to improve the quality and comparability of the data. Over time, as global reporting and analytical issues evolve, we may modify or add to our adjustments.

This methodology discusses standard adjustments to financial statements prepared under US, Japan and other local country accounting principles (collectively referred to as GAAP in this publication unless noted otherwise) and International Financial Reporting Standards (IFRS). The adjustments we discuss herein may be unique to GAAP or IFRS but may also be applied to other accounting jurisdictions, collectively termed "local GAAP", whenever it is appropriate to do so in order to make statements more comparable to corporations that report under GAAP or IFRS.

1 Non-financial corporations include utilities and corporate infrastructure, REITS, asset managers, and insurance brokers.

2 This update may not be effective in some jurisdictions until certain requirements are met, such as local language translation.

Certain adjustments are considered 'standard adjustments' and are designed to encapsulate adjustments across all non-financial corporates, where applicable. In limited circumstances, our presentation of financial information may differ from the standard adjustments indicated in this document because we think a different presentation is more analytically appropriate. Where differences from standard adjustments are pervasive in a particular industry, we will generally note this in the industry methodology.

In addition to the standard adjustments, we may also make non-standard adjustments to financial statements for other matters to better reflect underlying economics and improve comparability with peer companies. Non-standard adjustments tend to involve a higher degree of analytic judgment. For example, we may adjust financial statements to reflect estimates or assumptions that we believe are more suitable for credit analysis.

## Purpose and Application

In general, Moody's adjusts financial statements to improve analytical insight from the perspective of assessing credit risk and to improve the comparability of a company's financial statements with those of its peers. In standardizing certain adjustments, our goal is to enhance consistency of our global approach across countries and industries, and to promote transparency for market participants. We adjust those items for which reliable source data is available. However, we are cognizant of differences in reporting requirements and accounting regimes, and take such limitations into consideration when conducting our analysis.

More specifically, we adjust financial statements for the below reasons:

» *Apply accounting principles that we believe more faithfully capture underlying economics.* One example is our view that operating leases have debt-like financing characteristics that should be recognized on balance sheets. Most of our standard adjustments fall in the accounting principle category.

» *Improve comparability by aligning accounting principles.* For example, we adjust LIFO (last-in-first-out) inventories so that all companies in a peer group measure inventory on a comparable FIFO (first-in-first-out) basis.

» *Reflect estimates or assumptions that we believe are more appropriate for credit analysis in a company's particular circumstances.* These adjustments typically relate to highly judgmental areas such as asset valuation allowances, impairment of assets, and contingent liabilities. No standard adjustment falls in this category as the calculations are too company-specific. Instead, we adjust financials in this area based on individual facts and circumstances.

We make comprehensive adjustments to complete sets of financial statements and then compute ratios based on adjusted financial statements. As a result, our basic financial ratios do not contain complicated add backs to the numerators and denominators, but instead are simpler constructs based on fully adjusted sets of financial statements.

Our adjustments affect all three primary financial statements which, after our adjustments, continue to interact:

» *Balance sheet:* We adjust the value of certain items, remove the artificial effects of smoothing permitted by accounting standards, recognize certain off-balance sheet transactions, and change the debt versus equity classification of certain hybrid financial instruments with both debt and equity features.

» *Income statement:* We eliminate the effects of certain smoothing, recognize additional expenses, attribute interest to new debt that we recognize, and segregate the effects of unusual or non-recurring items.

» *Cash flow statement:* We adjust the cash flow statement to be consistent with our adjustments to the balance sheet and income statement. For example, we identify and segregate the cash effects of the unusual transactions and events that we separate on the income statement.

Our objective is to fully adjust interim reporting periods in the same manner as we adjust full-year financial statements. However, in some cases this may not be possible due to more limited accounting disclosures that are made in interim reporting periods. In such cases, we use our judgment in determining whether or not an adjustment can be made and how it should be calculated. Where there is lack of interim disclosure information for an adjustment, we tend to use the prior annual disclosure to make estimates.

We maintain "unadjusted financials" (i.e. publicly reported financials) and "adjusted financials" (i.e. publicly reported data plus adjustments) in a database and use it to generate peer comparisons and quantitative data by industry. This data facilitates rating comparability and more transparent communication.

## Standard Adjustments

Standard adjustments are identified below along with the applicable accounting regime. For example, the defined benefit pension plan adjustment applies to US GAAP, IFRS and Japan GAAP while the off-balance-sheet finance lease adjustment only applies to Japan GAAP.

EXHIBIT 1

**Standard Adjustment Application**

| | US GAAP | IFRS | JGAAP |
|---|---|---|---|
| Defined benefit pension plans | x | x | x |
| Multiemployer pension plans | x | - | - |
| Operating leases | x | x | x |
| Off-balance-sheet finance leases | - | - | x |
| Capitalized interest | x | x | x |
| Capitalized development costs | - | x | - |
| Interest expense related to discounted long-term liabilities other than debt | - | x | - |
| Hybrid securities | x | x | x |
| Securitizations and factoring arrangements | x | x | x |
| Inventory reported on a LIFO cost basis | x | - | - |
| Consistent measurement of Funds from Operations | - | x | - |
| Unusual and non-recurring items | x | x | x |

The following exhibit provides a brief description of each the standard adjustments. Each standard adjustment is described more fully later in this report.

EXHIBIT 2

**Financial Statement Adjustments in the Analysis of Non-Financial Corporations**

| Adjustment | Purpose |
|---|---|
| Defined benefit pension plans | To eliminate the effects of artificial smoothing of pension expense permitted by accounting standards and recognize as debt the amount the pension obligation is underfunded or unfunded (subject to equity credit). We also change the classification of cash contributed to the pension trust on the cash flow statement under certain circumstances. |
| Multiemployer pension plans | To recognize as debt an estimate of the company's portion of an underfunded multiemployer pension liability. |
| Operating leases | To capitalize operating and off-balance sheet finance leases and recognize a related debt obligation. We re-characterize rent expense on the income statement by imputing interest on lease debt and considering the residual amount as depreciation. |
| Capitalized interest | To expense interest capitalized in the current year. On the cash flow statement, we reclassify capitalized interest from an investing cash outflow to an operating cash outflow. |
| Capitalized development costs | To expense development costs capitalized in the current year and adjust intangible assets on the balance sheet accordingly. On the cash flow statement, we reclassify capitalized development costs from an investing cash outflow to an operating cash outflow. |
| Interest expense related to discounted long-term liabilities other than debt | To adjust interest expense to reclassify the accretion of discounted long-term liabilities other than debt as an operating expense. |
| Hybrid securities | To classify securities with characteristics of both debt and equity in accordance with Moody's classification of hybrid securities, which sometimes differs from accounting treatment. We adjust interest expense, dividends and related cash flows consistent with our classification of the hybrid security. |
| Securitizations and factoring arrangements | To classify off balance sheet securitization and factoring arrangements as collateralized borrowings. |
| Inventory reported on a LIFO cost basis | To adjust inventory recorded on a LIFO cost basis to FIFO value. |
| Consistent measurement of Funds from Operations | To adjust working capital where appropriate to include the difference between tax paid and current tax expense, and net interest paid and interest expense. |
| Unusual and non-recurring items | To reclassify the effects of unusual or nonrecurring transactions and events to a separate category on the income and cash flow statements. Our analytical ratios that include income or operating cash flows generally exclude amounts in those separate categories. |

## Non-Standard Adjustments

In addition to the standard adjustments, Moody's may also make non-standard adjustments to financial statements for other matters to better reflect underlying economics and improve comparability with peer companies. While not a comprehensive list, below are some examples of non-standard adjustments that we might make based on the underlying facts and circumstances of each issuer.

» Debt reported at fair value based on the election of a 'fair value option'

» Other post-employee benefit (OPEB) obligation market changes reported on the income statement

## Defined Benefit Pension Plans

There are two types of defined benefit pension plans: (i) "pre-funded" plans where companies are required to set aside assets in a separate trust to fund future benefits, and (ii) "unfunded" plans where companies are not required and elect not to set aside assets in a separate trust. Part 1 of our discussion addresses both types of plans. Part 2 addresses an incremental adjustment that is unique to unfunded plans.

A Supplemental Executive Retirement Plan (SERP) is a special type of pension plan that provides tax-deferred retirement income to executives. Unlike single employer pension plans (SEPs) which are protected by the Employee Retirement Income Security Act (ERISA) with, among other things, minimum funding levels and benefit guarantees, SERP benefits are largely at risk and usually unfunded. Despite the lack of regulatory protection, Moody's views SERP obligations no differently than SEP obligations due to the contractual nature of these plans and how they operate in bankruptcy in many jurisdictions. As such, the standard adjustments we make for SERPs are identical to, and made together with, those we make for SEPs. We do not give equity credit for SERPs.

We do not consider Other Post-Employment Benefits (OPEB), such as health benefit plans, as debt-like obligations. Among other considerations, our treatment considers the lack of regulatory protection, funding flexibility and treatment in bankruptcy in many jurisdictions.

### The Reporting Problem – Part 1

Current accounting standards often fail to recognize or fully recognize on the balance sheet the amount and/or nature of a company's economic obligation to its pension trust, in part because of smoothing mechanisms permitted in pension accounting. Artificial smoothing also distorts the measurement of pension expense on the income statement. Smoothing mechanisms permit the deferral of large losses and gains, which can result in incongruous reporting such as:

- Recording pension income during a period when the economic status of a plan deteriorates, and
- Recording pension-related assets on the balance sheet when a pension plan is underfunded

Standards require companies to classify cash contributions to the pension trust as an operating cash outflow in the cash flow statement, including the portion that is reducing plan underfunding, which arguably represents the reduction of pension 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 – Part 1

Moody's believes that for pre-funded pension plans a company's balance sheet should reflect a debt-like liability equal to the plan's underfunded status because of the contractual and regulatory nature of pension obligations. We measure the liability as the excess of the actuarially determined projected benefit obligation or defined benefit obligation (PBO or DBO)[3] over the fair value of assets held in separate pension trusts. As assets cannot generally be transferred from one pension trust to another, in most cases we adjust debt by the gross underfunding of all underfunded trusts.

Because of the contractual nature of pension obligations, we view a 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

[3] Some argue that a better measure of the pension obligation is the accumulated benefit obligation (ABO). Unlike PBO/DBO, ABO does not assume future compensation increases for employees. Moody's believes that PBO/DBO is the better measure for a company that is a going concern.

the amortization of prior service cost and actuarial gains and losses. We view pension expense as the current year's service cost, plus interest on the gross PBO, minus actual earnings on plan assets[4]. However, volatility in the performance of pension plan assets is not reflected in EBIT because Moody's reflects actual earnings on plan assets in "other non-recurring expense" and excludes this amount from EBIT. On the cash flow statement, we view cash contributions in excess of service cost as the repayment of (pension) debt.

## How Moody's Adjusts the Financial Statements – Part 1

The following exhibit describes Moody's adjustments related to underfunded defined benefit pension obligations.

EXHIBIT 3

**Financial Statement Adjustments in the Analysis of Non-Financial Corporations**

| | |
|---|---|
| Balance Sheet | We record as debt the amount by which the defined benefit pension obligation is underfunded. Our adjustment recognizes the gross underfunded pension obligation (PBO or DBO - FMV of assets) as debt, and removes any remaining intangible pension assets and liabilities. |
| Income Statement | » We reverse all pension costs and recognize service cost, which Moody's considers the best estimate of the operating cost of the pension plan (in proportion to COGS, Operating Expenses and SG&A).<br>» We attribute interest expense to pension-related debt using an interest rate that represents a theoretical average borrowing cost for each issuer based upon its rating.<br>» We recognize interest cost on the PBO or DBO in excess of interest attributed to pension-related debt in other non-recurring income/expense; add or subtract actual losses or gains on pension assets (but only in an amount up to the interest cost after attributing interest expense to pension-related debt) in other non-recurring income/expense. |
| Cash Flow Statement | We reclassify employer cash pension contributions in excess of service cost from CFO to a financing cash outflow. We do not adjust the cash flow statement if pension contributions are less than the service cost. |

The most critical assumptions in pension accounting often relate to the discount rate used to assess the present value of future payments and the assumed returns on pension assets. Where these assumptions appear unsustainable or significantly different than those of a company's peers, we will often investigate the reasons why management chose those assumptions. The explanation may cause us to change our adjustment or provide other insight into credit risk. For example, if we conclude that the discount rate is aggressive, we may request that management calculate PBO or DBO using a lower rate and base our pension adjustment on that calculation. As another example, understanding the reason for a high expected rate of return on assets[5] could provide us with insight into the nature and risk of the assets in the pension trust.

## The Reporting Problem – Part 2

For countries such as Germany and Austria with an unfunded pension system, there are a number of significant differences compared to pre-funded schemes. In particular, unfunded pension arrangements:

» Result in the inclusion of the gross pension obligation (in place of the net obligation) on the balance sheet;

» Typically have no statutory requirement for cash pre-funding of the gross obligation; and

[4] We limit the amount of gains on assets to the amount of interest to avoid recording pension income that is probably not sustainable. Also, in general, plan sponsors cannot utilize the gain on pension plan assets to satisfy non-pension related obligations and the monetization of plan assets may give rise to significant tax penalties.

[5] The assumed rate of return on pension assets is irrelevant to our pension-related adjustments.

» Allow a long time horizon to deal with the actual funding of pension payments which provides the sponsoring companies with a choice of how to meet their obligations.

## Moody's Analytic Response – Part 2

For unfunded pension plans that generally lack the jurisdictional and legal requirement to maintain the plan, Moody's considers the PBO or DBO to be only partially "debt-like". To improve comparability with pre-funded pensions, Moody's simulates a pre-funding of pension obligations for companies that are not required to pre-fund. Given the long-term horizon for payment of pension obligations and the general predictability of the payment streams, the company may have time to secure the necessary financing. In cases where the company has the ability to easily access the capital markets, Moody's may assume that management's targeted debt and equity mix will be used to fund future pension obligations.

In circumstances where a company's financial policy is to pre-fund a previously unfunded pension obligation, Moody's will continue to treat the arrangement as unfunded unless the plan assets amount to or are expected to amount to approximately three-quarters of the PBO or DBO. Consequently, for unfunded pensions, an additional adjustment may be made to the balance sheet to incorporate an "equity credit" which reduces the amount of the gross pension obligation (PBO or DBO) that would otherwise be added to debt. However, excess liquid funds reduce the likelihood of additional equity being raised and equity credit is therefore calculated after excess liquid funds have been deducted from the PBO or DBO. Excess liquid funds are discretionary amounts of cash and marketable securities that exceed day-to-day needs for operations.

Moody's does not further adjust the income statement or the cash flow statement for companies with unfunded pension obligations, other than to align interest expense with the adjustment to debt described in the previous paragraph. The remaining interest cost on the PBO or DBO is included in other non-recurring expense.

## How Moody's Adjusts the Financial Statements – Part 2

The following exhibit describes Moody's adjustment related to unfunded defined benefit pension obligations.

EXHIBIT 4

**Standard Adjustments for Unfunded Defined Benefit Pension Plans**

| | |
|---|---|
| Balance Sheet | We record an "equity credit" that simulates funding of the company's unfunded PBO or DBO. Our adjustment:<br>» Reverses a portion of the debt recognized in Part 1 of our adjustment for defined benefit pension plans, and<br>» Recognizes a corresponding increase in equity. |
| Income Statement | We do not further adjust the income statement for unfunded pension plans, other than to align interest expense with our adjustment to debt. |
| Cash Flow Statement | We do not further adjust the cash flow statement for unfunded pension plans. |

## Multiemployer Pension Plans

### The Reporting Problem

Under US GAAP, multiemployer pension plans (MEPP) are not reflected as a liability on the balance sheet. MEPPs generally cover workers from more than one employer, and employer contributions, determined by collective bargaining with a labor union, fund the plans. If one participating employer in an MEPP fails, the remaining employers participating in the plan could be required to share in the failed employer's obligation.

### Moody's Analytical Response

Consistent with our treatment of single employer pension plans, we believe that a company's share of multiemployer pension plan underfunding represents a long-term debt-like liability.

Our ability to precisely estimate a company's share of MEPP under-funding is limited as companies are not required to disclose their share of any under-funding. Our rating methodology employs an industry multiple computation based on publicly available information contained in MEPP's annual reports[6] to roughly estimate a company's share of any under-funding. The steps of that computation are:

1. Compute an "under-funding multiple" for individual major MEPPs based on the relationship between a plan's funded status and total annual contributions to the plan from all participating companies using information from the plans' annual reports in three steps:

    a. Measure the plans' funded status. We subtract "net plan assets" from 90% of the Retirement Protection Act of 1994 (RPA 94) current liability[7] ("the adjusted liability").

    b. Calculate the gross multiple. We divide the funded status by total contributions to the MEPP from all participating companies.

    c. Determine the "under-funding multiple". We take 50% of the gross multiple. This reduction reflects our view that in contract negotiations with unions, companies will ultimately fund about 50% of the under-funding and union employees will "fund" the remaining 50% by foregoing current wages, benefits or work rules.

2. Group major MEPPs into broad industry categories and compute an "industry under-funding multiple" as the weighted average of the under-funding multiples for the MEPPs in that industry.

3. Estimate a company's share of under-funding by multiplying the company's most recent annual contribution to its plans by the applicable industry under-funding multiple. We may refine this multiple if the company participates in plans whose individual multiples are materially different than the overall industry multiple.

6 The Employee Retirement Income Security Act of 1974, requires employee benefit plans to file an annual report with the Internal Revenue Service and the Department of Labor (DOL) using a Form 5500. Form 5500 contains various schedules of information detailing plans' financial position and are publically available on the DOL's website.

7 The RPA 94 current liability represents expected future benefit payments discounted at the risk free rate of interest.

### How Moody's Adjusts the Financial Statements

The following exhibit describes Moody's adjustment related to multiemployer pension obligations.

EXHIBIT 5

**Standard Adjustments for Multiemployer Pension Plans**

| | |
|---|---|
| Balance Sheet | We increase debt by the amount attributed as the company's share of underfunding, record a deferred tax asset related to the resulting temporary difference, and record the remainder as a reduction to shareholders' equity. |
| Income Statement | We recognize related interest expense using an interest rate that represents a theoretical average borrowing cost for each issuer based upon its rating. |
| Cash Flow Statement | We do not adjust the cash flow statement. |

## Operating Leases

### The Reporting Problem

Accounting standards distinguish between capital and operating leases, and the accounting for the two is very different. Accounting standards view capital leases as the acquisition of a long-term property right and the incurrence of debt. During the lease term, companies depreciate the capitalized property right and divide the lease payment between interest expense and the repayment of debt.

In contrast, accounting standards view operating leases as executory contracts that are treated as being off-balance sheet and are generally accounted for on a pay-as-you-go basis. That is, companies do not recognize operating leases as the incurrence of debt but simply report lease payments as rent expense on the income statement and as an operating cash outflow on the cash flow statement.

Further, accounting standards distinguish between capital and operating leases using arbitrary bright line tests. As a result, companies structure transactions to achieve certain accounting and, at the margin, the economic distinction between capital and operating leases is insignificant even though the accounting is very different. This results in diminished comparability between companies that account for similar economic transactions differently and between companies that lease assets versus those that buy them.

### Moody's Analytical Response

Our rationale for capitalizing operating leases centers around the view that leases have debt-like financing characteristics that reduce a company's borrowing capacity. Leases are contractual commitments for future cash outlays and failure to make the contractual payments can result in adverse consequences that eventually lead to a default. In the absence of lease financing options, a company would normally borrow money to purchase the asset. For credit analysis, capitalizing operating leases enhances comparability between companies that buy assets financed with debt and those that lease assets.

Moody's approach entails adjustments to the balance sheet, income statement and cash flow statement. On the balance sheet, our approach emphasizes a present value (PV) concept. The present value of minimum lease commitments reflects an estimate of an issuer's actual legal liability. Our debt adjustment (matched by an equal adjustment to assets) uses an estimate of the PV of committed lease liabilities, with a floor and cap to enhance comparability where companies have very short or very long lease tenors. The use of a floor reflects our view that PV may significantly understate the economic liability for companies with very short tenor leases that will be renewed because the assets are needed in ongoing business operations. Additionally, we believe that the floor better captures the liability where issuers use variable or contingent rent structures that lead to small reported minimum lease liability amounts. We further believe that a PV concept overstates the economic liability of very long leases because long leases tend to have conditional terms, often contain explicit break clauses, and in practice can often be exited for less than the full payment. Therefore, we cap the debt adjustment at 10x annual rent expense.

On the income statement, we align interest expense with our debt adjustment by reclassifying rent expense to interest and depreciation expense. This approach is similar to the accounting treatment for capital leases. We multiply the operating lease debt adjustment by an interest rate that represents a theoretical average borrowing cost for each issuer based upon its rating, with the remaining portion of rent expense being allocated to depreciation expense. On the cash flow statement, our adjustment moves lease depreciation expense out of CFO and into capital expenditures within cash flow from investing activities, which is also similar to the accounting for capital leases.

## How Moody's Adjusts the Financial Statements

We increase balance sheet debt and fixed assets by an amount that equals the greater of:

1. The present value of minimum lease commitments (capped at 10x), or

2. A sector multiple times annual rent expense

### Present Value of Minimum Lease Commitments

The present value of minimum lease commitments is calculated by discounting minimum lease commitments disclosed in the company's footnotes by an intermediate term interest rate that is estimated based on the issuer's rating. We recognize that interest rates for a given rating category differ regionally and all-in borrowing costs differ between issuers in the same region. However, these differences will fluctuate over time and we believe that using a common rate and approach is a transparent way to make an adjustment that is globally consistent to enhance comparability.

In most jurisdictions, GAAP does not require companies to segregate committed lease liabilities of greater than five years. In these cases, the 'thereafter' portion is discounted assuming that the year five liability will remain flat in subsequent years. This assumption may overstate PV for issuers with very long leases but we think this is a reasonable way to make the analytical adjustment for global comparability given insufficient detail in financial statement disclosures, and the 10x cap is a separate mechanism to address issues related to very long leases.

### Sector Multiple Times Annual Rent Expense

Sector multiples were set to levels that approximate the sector's median-implied PV multiple and range from 3-6. Medians were determined by reference to the present value of minimum lease commitments / annual rent expense for each rated issuer with leases in a sector. The process for establishing the proposed sector multiples has also included a degree of judgment in some cases. For example, in sectors with a small number of issuers for which the median is less meaningful, we considered the type of leased assets and made a comparison to sectors with similar assets and lease profiles to determine the multiple. Refer to the Appendix for a listing of sector multiples.

We may consider updating sector multiples over time if the median-implied PV multiple changes significantly and we believe this change will be lasting as well as meaningful, or if it seems appropriate to aggregate sectors to use a common multiple. However, we do not currently envision making updates until after the lease-related changes that have been proposed by the accounting boards have been implemented. In very rare cases, we may utilize a non-standard multiple or cap if an issuer has sufficiently unique characteristics. Adjustments to rent expense are also expected to be rare. For example, we typically do not offset rent expense with sublease income because there is often a mismatch between the duration of the sub-lease and the head lease. Additionally, sublease income comes with counterparty credit risk. However, we do not ignore sublease income completely and may consider qualitatively the value of sublease income in a company's ability to tolerate more leverage when sublease income is substantial.

We use the minimum lease commitment for the next year (as disclosed in the financial statement footnotes) instead of rent expense when annual rent expense is not disclosed.

The following exhibit summarizes Moody's adjustments to capitalize operating leases.

EXHIBIT 6

**Standard Adjustments for Operating Leases**

| | |
|---|---|
| Balance Sheet | We increase debt and fixed assets by an amount that equals the greater of (i) the present value of minimum lease commitments, capped at 10x, or (ii) a sector multiple times annual rent expense. |
| Income Statement | We reclassify rent expense to interest and depreciation expense using the following calculation, and we adjust operating expenses (or cost of goods sold and selling, general & administrative expenses) proportionally:<br>» Lease Interest Expense = Lease debt times an intermediate term interest rate based on the issuer's rating (capped at rent expense)<br>» Lease Depreciation Expense = Rent Expense less Lease Interest Expense |
| Cash Flow Statement | We reclassify lease depreciation expense from operating cash flow to capital expenditures. |

In August 2010, in connection with global accounting convergence, the U.S. Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) released similar exposure drafts proposing to significantly change operating lease accounting. We will consider whether it is appropriate to make any further changes to our analytical adjustments for operating leases after the accounting standards are adopted and there is more clarity on the details for reporting and disclosure, particularly the treatment for the income and cash flow statements where there currently are differences in the FASB and IASB proposals.

## Off-Balance Sheet Finance Leases (Japan GAAP)

### The Reporting Problem

Under JGAAP, companies are allowed to report some types of finance lease transactions on a pay-as-you-go basis, just like operating lease transactions. Companies recognize these lease payments as lease expense on income statements and as operating cash outflows on cash flow statements.

### Moody's Analytical Response

Moody's views an off-balance sheet finance lease as a debt-like transaction, similar to operating leases.

### How Moody's Adjusts the Financial Statements

The following exhibit describes Moody's adjustments to capitalize off-balance sheet finance leases.

EXHIBIT 7

**Standard Adjustments for Off-Balance-Sheet Finance Leases**

| | |
|---|---|
| Balance Sheet | We increase both debt and fixed assets. We assume the debt amount to be the PV of the unpaid lease amount as disclosed in a footnote. |
| Income Statement | We reclassify rent expense to interest expense and depreciation expense, and we adjust operating expenses (or cost of goods sold and selling, general & administrative expenses) proportionally. |
| Cash Flow Statement | We reclassify lease depreciation expense from operating cash flow to capital expenditures. |

## Capitalized Interest

### The Reporting Problem

We typically wish to separately analyze the operations of a business from the financing of that business. This separation enables a more accurate portrayal of business operations, which is often the primary source of cash to repay debt.

However, accounting standards sometimes commingle operating and financing activities.  One prominent example is capitalized interest where, under certain circumstances, GAAP and IFRS require a company to capitalize interest costs as a part of property, plant and equipment (PP&E).  In the year the company capitalizes interest, reported capital assets, income and cash flow from operations are all higher relative to what would have been reported had the company expensed all interest.

### Moody's Analytical Response

Moody's views capitalized interest as a cost for obtaining financing (i.e. interest expense) and believes that analysis of interest coverage should expense when incurred all interest costs regardless of whether a company recognizes that cost as an expense on its income statement or as an asset on its balance sheet. This requires modification to the balance sheet and income statement.

### How Moody's Adjusts the Financial Statements

The following exhibit describes Moody's adjustments to expense interest capitalized:

EXHIBIT 8

**Standard Adjustments for Capitalized Interest**

| | |
|---|---|
| Balance Sheet | We reduce PP&E by the amount of 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 increase interest expense by the amount of capitalized interest during the current period, and reduce applicable tax expense. |
| Cash Flow Statement | We reclassify capitalized interest from investing cash flow (capital expenditure) to operating cash flow.. |

## Capitalized Development Costs

### The Reporting Problem

Provided certain criteria are met, capitalization of product development costs is mandatory under IFRS, but not permitted under US GAAP, with the exception of some internally developed software expenditures which can be capitalized under US GAAP. Companies use different approaches to assess the future profitability of products under development and therefore the amount capitalized is dependent on judgment with respect to the profitability and expected life of the product. In addition, capitalization produces an intangible asset which can sometimes have a relatively short life.

### Moody's Analytical Response

To obtain consistency across accounting regimes and best reflect the transaction economics, Moody's views capitalized development costs, other than software, as an operating expense and believes that the analysis of profitability should consider all operating costs, regardless of whether a company recognizes that cost immediately as an expense on its income statement or as a depreciable asset on its balance sheet.

### How Moody's Adjusts the Financial Statements

The following exhibit describes Moody's adjustments to expense capitalized development costs.

EXHIBIT 9

**Standard Adjustments For Capitalized Development Costs**

| | |
|---|---|
| Balance Sheet | We reduce intangible assets, other than software, 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 increase operating expenses, other than software, 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 Statement | We reclassify capitalized development costs, other than software, from an investing cash outflow to an operating cash outflow. |

## Interest Expense Related To Discounted Long-Term Liabilities Other Than Debt

### The Reporting Problem

Under IFRS, companies discount certain long-term liabilities other than debt to present value, and record the unwinding of the discount in interest expense. This reporting distorts the relationship between interest expense and debt and impacts interest coverage ratios. It also undermines the comparability of companies, particularly when comparing a company following IFRS with a company following US GAAP, where companies generally do not report the unwinding of discounts on non-debt liabilities as interest expense.

### Moody's Analytical Response

In the income statement, Moody's reclassifies the portion of interest expense resulting from the unwinding of the discount to operating expenses. This reclassification preserves the tight relationship between interest expense and debt, keeps interest coverage ratios focused on pure interest, and improves comparability among companies. For example, under US GAAP certain long-term liabilities such as asset retirement obligations under FASB Statement 143 are discounted to present value. The unwinding of the discount is reported as an operating expense under US GAAP.

### How Moody's Adjusts the Financial Statements

The following exhibit describes Moody's adjustments to reclassify interest expense arising from discounting.

EXHIBIT 10

**Standard Adjustments for Interest Expense Related to Discounting Long-term Liabilities Other Than Debt**

| | |
|---|---|
| Balance Sheet | No impact on the balance sheet. |
| Income Statement | We increase operating expenses by the cost of unwinding the discounted liabilities, and reduce interest expense by that same amount. |
| Cash Flow Statement | As the related cash outflows are reported as an operating cash flow (CFO), this adjustment has no impact on the cash flow statement. |

## Hybrid Securities

### 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, the economics suggest a different classification from the accounting treatment. For example, certain preferred stocks are classified as 100% equity, even though these instruments have important attributes of debt.

### Moody's Analytical Response

Since hybrid securities are generally not pure debt or pure equity, Moody's places a particular hybrid security on a debt - equity continuum. We assign weights to the debt and equity components of a hybrid based on the security's particular features. The weights determine where it lies on the continuum. As a result, for example, Moody's may view a particular hybrid as 75% debt and 25% equity, while accounting standards may classify the instrument as 100% equity[8].

On the balance sheet we classify the instrument in accordance with the weights we assign to its equity and debt features:

EXHIBIT 11

| Basket | Debt Component | Equity Component |
|---|---|---|
| A | 100% | 0% |
| B | 75% | 25% |
| C | 50% | 50% |
| D | 25% | 75% |
| E | 0% | 100% |

Often this requires an adjustment from the classification in current accounting, which often classifies instruments as all debt or all equity, or in some cases, minority interest. In certain cases, we limit the amount of equity credit given.

We also adjust the income statement to reflect interest expense or dividends, depending on our balance sheet classification. For example, if we deem a portion of a debt instrument as "equity - like", Moody's

8 For additional information on hybrid basket treatment, see our hybrid equity credit cross-sector rating methodology, which can be found in the Related Research section at the end of this report.

reclassifies the ratable amount of interest expense to dividends. Conversely, if we deem a portion of an equity instrument as "debt - like", Moody's reclassifies the ratable amount of dividends to interest expense.

We apply similar thinking to the cash flow statement, again reflecting cash outflows as interest or dividends depending on our balance sheet classification.

### How Moody's Adjusts the Financial Statements

The following exhibit describes Moody's adjustments related to hybrid securities.

EXHIBIT 12

**Standard Adjustments for Reclassification to Equity for Hybrid Securities Classified as Debt**

| | |
|---|---|
| Balance Sheet | We reclassify to equity (i.e. preferred stock) hybrid securities classified as debt, based on the hybrid basket treatment assigned to the particular hybrid security. |
| Income Statement | We reclassify interest expense to preferred dividends for the calculated equity portion of hybrid securities based on the hybrid basket treatment. |
| Cash Flow Statement | We reclassify interest expense (an operating cash outflow) to preferred dividends (a financing cash outflow) for the calculated equity portion of hybrid securities based on the hybrid basket treatment. |

EXHIBIT 13

**Standard Adjustments for Reclassification to Debt for Hybrid Securities Classified as Equity**

| | |
|---|---|
| Balance Sheet | We reclassify to debt (i.e. subordinated debt) hybrid securities classified as equity, based on the hybrid basket treatment assigned to the particular hybrid security. |
| Income Statement | We reclassify preferred dividends to interest expense for the calculated debt portion of hybrid securities based on the hybrid basket treatment. |
| Cash Flow Statement | We reclassify preferred dividends (a financing cash outflow) to interest expense (an operating cash outflow) for the calculated debt based on the hybrid basket treatment. |

## Securitizations And Factoring Arrangements

### The Reporting Problem

Companies often report as a sale the transfer of receivables to a factor or a securitization trust. In most cases, the primary motive of the arrangement is to obtain cash at a low cost. Accounting standards that treat these arrangements as sales result in non-comparable reporting among companies. Companies that borrow from traditional sources (e.g., draw on a revolver to fund working capital needs) appear different from those that raise cash from the sale of receivables, even though the economics of the borrowings are likely to be very similar. The sale of receivables may temporarily improve financial ratios because of the related debt reduction. However, Moody's believes that in general the sale of receivables does not reduce the credit risk of the issuer for several reasons: the related receivables usually represent some of the best assets on the balance sheet, the sale of such prime assets reduces future financial flexibility, and unless the issuer continues to sell receivables forever it will face an eventual drain on cash. The sale of receivables also is likely to have an adverse effect on expected credit losses because the remaining assets for the company's creditors typically will be less liquid with greater uncertainty around their value.

## Moody's Analytical Response

When cash is raised from the value of working capital assets, we see little analytical difference between sale/securitization and collateralized borrowing. Accordingly, Moody's credit analysis focuses on the cash impact - both the short term benefit and the longer term risk if the arrangement terminates - rather than on the legal issues that may be a key focus for the accounting treatment. We make a standard assumption that these programs do not continue and, if the unwinding of a receivable (or other asset) factoring or securitization arrangement would result in cash consumption, we almost always treat such arrangements as being no different than a collateralized borrowing for credit analysis purposes and adjust the financial statements.

For some issuers, the disclosure of factoring and securitization transactions may be limited or absent even when the amounts are material. When issuers report accounts receivables that are materially lower than peers in the same industry and geography, such differences may result from undisclosed factoring and securitization transactions, negotiation of non-standard terms of payment with their customers, or may simply reflect enduring differences in the basic nature of their business. Unless Moody's believes that the difference reflects fundamental business differences, Moody's may estimate how debt would change if the amount of accounts receivable was normalized, without changing the financial ratios we publish, and qualitatively consider this in our risk analysis for the rating.

An example of a rare exception where we would not treat such an arrangement as collateralized borrowings would be storm recovery securitization bonds for a regulated utility when enabling legislation has been passed to allow the utility to raise funds and impose a future levy on customers explicitly to repay those funds. We believe that the regulatory and/or legislative support makes these arrangements different from other receivables securitization transactions. Where the audited statements do not include a debt amount and Moody's does not make an adjustment, we will continue to qualitatively consider other impacts on the utility, such as potential reduced ability to obtain future rate increases.

## How Moody's Adjusts Financial Statements

The following exhibit describes Moody's adjustments for arrangements that sponsors report as sales, which we consider to be analytically more appropriately represented as debt transactions.

EXHIBIT 14

**Standard Adjustments for Securitizations and Factoring Arrangements**

| | |
|---|---|
| Balance Sheet | We increase debt by the ending balance of uncollected or unrealized assets that the company transferred in the securitization arrangement as of the balance sheet date. We also increase assets of the appropriate category by the same amount. |
| Income Statement | We impute interest expense on the amount of additional debt recognized, at the company's short-term borrowing rate, and reduce other expense by the same amount. Thus, our adjustment does not affect reported net income. |
| Cash Flow Statement | We reclassify amounts in the cash from operations (CFO) and cash from financing (CFF) categories:<br>» Upon the initial transfer of assets, we reclassify the cash inflow from operating cash flow (CFO) to financing cash flow (CFF).<br>» For each subsequent period, we base the amount of reclassification on changes in uncollected or unrealized sponsor assets in the securitization arrangement from the beginning to the end of the period. For example, if the amount of uncollected receivables in the securitization:<br>– increases from the beginning to the end of the year, we reclassify the amount of that increase from cash inflow from operations (CFO) to cash inflow from financing activities (CFF).<br>– decreases from the beginning to the end of the year, we increase cash from operations (CFO) by that amount and decrease cash from financing activities (CFF). |

## Inventory Reported On A LIFO Cost Basis

### The Reporting Problem

The LIFO (last-in-first-out) cost method for carrying inventories on the balance sheet is an accounting choice under US GAAP but is not acceptable under other GAAPs, including IFRS. In periods of rising prices, the LIFO method can cause the carrying value of inventory on the balance sheet to be well below FIFO (first-in-first-out) value, replacement cost, and market value. As a result, the balance sheets of companies electing the LIFO cost method are not comparable to those that follow FIFO or other methods.

### Moody's Analytical Response

Moody's adjusts inventories that companies report under the LIFO cost method to the FIFO cost method when LIFO cost is less than FIFO. This adjustment improves comparability among companies reporting under these two different inventory methods. It also states LIFO inventory at the most recent cost of inventory.

This adjustment only affects the balance sheet. We do not adjust the income or cash flow statements.

### How Moody's Adjusts the Financial Statements

The following exhibit describes Moody's adjustment to inventory measured on a LIFO basis for reporting purposes.

EXHIBIT 15

**Standard Adjustments for Inventory Reported on a LIFO Cost Basis**

| | |
|---|---|
| Balance Sheet | We increase inventories by the amount of the LIFO inventory valuation reserve, increase deferred tax liabilities for applicable tax effects, and increase retained earnings. |
| Income Statement | No adjustments made. |
| Cash Flow Statement | No adjustments made. |

## Consistent Measurement Of Funds From Operations

### The Reporting Problem

Companies using IFRS have flexibility in reporting cash flow from operating activities in the cash flow statement. Diversity can exist in: (1) the starting point for the calculation (either net income, operating profit, or pre-tax income)[9], (2) how and where cash payments for interest and taxes are reported, and (3) how and where interest expense is reported. Cash from operations before changes in working capital, which we refer to as Funds from Operations (FFO), will be affected to the extent that working capital includes or excludes the difference between: (i) cash paid for taxes and current tax expense, and (ii) net interest paid and net interest expense (including any interest capitalized and excluding any interest related to discounting of long-term liabilities other than debt).

9 The cash flow statement may appear to start at net income, but where net interest and tax expense are added back, this is equivalent to a starting point of operating profit. Similarly, where the starting point is net income, but tax expense is added back, this is equivalent to a starting point of pre-tax income.

### Moody's Analytical Response

Under GAAP the cash flows statement is required to start at net income, therefore Moody's believes that adjustments to cash from operations may be necessary to make the calculation of funds from operations consistent across accounting regimes. For example, if a company reports its cash flow statement starting from pre-tax income[8], the difference between the current tax expense and tax paid needs to be included in the measurement of working capital when calculating FFO. Furthermore, if a company starts its cash flow statement with operating income, the difference between net interest expense (including any interest capitalized and excluding any interest related to discounting of long-term liabilities other than debt) and net interest paid and the difference between current tax expense and tax paid both need to be included in the measurement of working capital when calculating FFO.

### How Moody's Adjusts the Financial Statements

The following exhibit describes Moody's adjustments for the different IFRS operating cash flow starting points.

EXHIBIT 16

**Standard Adjustments for Consistent Measurement of Funds from Operations**

| | |
|---|---|
| Balance Sheet | No adjustments made. |
| Income Statement | No adjustments made. |
| Cash Flow Statement | » If the cash flow statement starting point is pre-tax income, we adjust working capital by the difference between current tax expense and tax paid.<br>» If the cash flow statement starting point is operating profit[8], we adjust working capital by the difference between: current tax expense and tax paid; and net interest expense (including any interest capitalized and excluding any interest related to discounting of long-term liabilities other than debt) and net interest paid. |

## Unusual And Non-Recurring Items

### The Reporting Problem

Financial statements generally do not contain complete information about unusual or non-recurring items. Although companies separately display the effects of a few non-recurring transactions and events (e.g. discontinued operations and extraordinary items), accounting standards do not require or permit companies to separately display on the face of the statements a sufficiently broad range of unusual or non-recurring items. Examples include:

- Unusually large transactions (creating revenues, costs or cash flows) that management does not expect to recur in the foreseeable future
- Unique transactions, such as selling real estate by a company that rarely sells real estate
- Transactions that have occurred in the past but that management expects will soon cease (for example, the tax benefits of deductible goodwill whose depreciable life is ending).

Inadequate information about the effects of unusual or non-recurring items can foster misleading impressions about key trends in financial data. For example, the impact of a one-time unusually large sale, if not separately considered, could create a misleading impression about a company's trends in market share, revenue, income and operating cash flow.

## Moody's Analytical Response

Moody's captures the effects of unusual and non-recurring transactions and events in separate captions on the face of the income and cash flow statements. This enables us to more accurately portray trends in the underlying recurring core business. Our key financial ratios will generally exclude the effects of unusual and non-recurring transactions that we identify.

We identify unusual and non-recurring transactions and events from public disclosures, including management's discussion and analysis of operations. We may also discuss those types of transactions with management to help ensure that we have considered major items and accurately quantified their effects.

For practical reasons, we generally do not adjust the balance sheet for unusual or non-recurring items. Nevertheless, we will consider the possibility that an unusual or non-recurring item could materially affect the balance sheet and adjust it, if needed.

## How Moody's Adjusts the Financial Statements

The following exhibit describes Moody's adjustments to capture the effects of unusual and non-recurring items.

EXHIBIT 17

**Standard Adjustments for Unusual and Non-Recurring Items**

| | |
|---|---|
| Balance Sheet | We adjust the balance sheet in those instances where it is material to our analysis. |
| Income Statement | We 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 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. |

# Non-Standard Adjustments

In addition to the standard adjustments, we may also make non-standard adjustments to financial statements for other matters to better reflect underlying economics and improve comparability with peer companies. Non-standard adjustments tend to involve a higher degree of analytic judgment, such as determining whether and how to make adjustments for the extension of trade payables in a payables finance arrangement. These adjustments are not as broad reaching and are less impactful to the overall population of companies that we rate, as compared to the standard adjustments. For example, we may adjust financial statements to reflect estimates or assumptions that we believe are more appropriate for credit analysis. We may also make non-standard adjustments where local GAAP or the interpretation of IFRS in a particular country or region differs from the norm in an area that would influence our analysis.

We compute our standard adjustments and non-standard adjustments based on public information. We are limited to publishing only publically available information, although private information may be considered in the rating process in a qualitative manner.

We highlight a few examples of non-standard adjustments:

**Debt reported at fair value based on the election of a "fair value option."** A fair value option exists under U.S. GAAP and IFRS whereby companies can choose to measure certain of their financial assets and financial liabilities at fair value on an instrument-by-instrument basis. When a company elects this option for its debt, we may make adjustments to restate debt from fair value to amortized cost (or face value) on the balance sheet and to reverse any corresponding gains or losses recognized in the income statement related to changes in the fair value of debt. Other common causes for debt reported at amounts other than face value include hedge accounting (e.g. requiring periodic reassessment of debt) and the netting of debt discounts and issuance fees.

**Other Post-Employee Benefit (OPEB) Obligation Market Changes Reported in Income Statement.** Companies that have elected an accounting policy to record OPEB market changes through the income statement each period may experience periods of significant volatility. Our standard pension adjustment removes the impact of market volatility from operating income, EBIT and EBITDA. When a company also has a material OPEB obligation, the impact of market volatility may be moved on the income statement consistent with that of pension mark-to-market changes.

## Moody's Related Research

A list of potentially related rating and cross-sector methodologies referenced in this report can be found here.

## Appendix – Operating Lease Sector Multiples

| Sector Name | Lease Multiple |
|---|---|
| Aerospace & Defense | 3 |
| Alcoholic Beverage | 3 |
| Apparel | 4 |
| Asset Managers | 6 |
| Automobile Manufacturer | 3 |
| Automotive Supplier | 3 |
| Broadcast & Advertising Related | 4 |
| Building Materials | 3 |
| Business Services | 3 |
| Chemical | 3 |
| Communications Equipment | 3 |
| Communications Infrastructure | 5 |
| Construction | 3 |
| Consumer Durables | 3 |
| Consumer Electronics | 3 |
| Consumer Services | 4 |
| Distribution & Supply Chain Services | 3 |
| Electric Generation & Transmission Cooperatives | 3 |
| Environmental Services & Waste Management | 3 |
| Equipment & Transportation Rental | 3 |
| Finance Companies | 3 |
| Gaming | 4 |
| Generic Project Finance | 6 |
| Government Owned Rail Network | 3 |
| Healthcare Service Providers | 4 |
| Homebuilding & Property Development | 3 |
| Independent Exploration & Production | 4 |
| Insurance Brokers & Service Companies | 4 |
| Insurers | 4 |
| Integrated Oil & Gas | 3 |
| Investment Holding Companies | 3 |
| Large Global Diversified Media | 4 |
| Lodging & Cruise | 5 |
| Manufacturing | 3 |
| Medical Product & Device | 3 |
| Midstream Energy | 3 |
| Mining | 3 |
| Natural Gas Pipelines | 6 |
| Oilfield Services | 3 |
| Packaged Goods | 3 |

| Sector Name | Lease Multiple |
|---|---|
| Packaging Manufacturers | 3 |
| Paper & Forest Products | 3 |
| Passenger Airlines | 5 |
| Passenger Railway | 3 |
| Pay TV-Cable & Direct-to-Home Satellite Operators | 3 |
| Pharmaceutical | 3 |
| Postal & Express Delivery | 3 |
| Privately Managed Airports & Related Issuers | 6 |
| Privately Managed Port Companies | 6 |
| Privately Managed Toll Roads | 3 |
| Protein & Agriculture | 3 |
| Publishing | 4 |
| Refining & Marketing | 3 |
| Regulated Electric & Gas Networks | 4 |
| Regulated Electric & Gas Utilities | 4 |
| Regulated Water Utilities | 3 |
| REITs & Other Commercial Property Firms | 4 |
| Restaurant | 6 |
| Retail | 5 |
| Securities Firms | 5 |
| Semiconductor | 3 |
| Shipping | 3 |
| Soft Beverage | 3 |
| Software | 3 |
| Steel | 3 |
| Surface Transportation & Logistics | 3 |
| Technology Hardware | 3 |
| Technology Services | 3 |
| Telecommunications | 3 |
| Tobacco | 3 |
| Trading Companies | 3 |
| Unregulated Power Companies | 6 |
| Unregulated Utilities | 6 |

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