

Article Title: ARCHIVE | Criteria | Insurance | General: Holding Company Analysis Data: (EDITOR'S NOTE: — This criteria article is no longer current. It has been superseded by the article titled "Group Rating Methodology," published on May 7, 2013.) Although much has been written about Standard & Poor's Ratings Services' approach to analyzing operating insurance companies, this article presents a comprehensive discussion of global insurance holding-company analysis. Much of the criteria used to evaluate insurance holding companies are similar to those used to evaluate other financial institutions and other corporate entities. However, given the unique regulatory and operating environment that insurers operate within, key differences are also identified. Standard & Poor's is refining and adapting its methodology and assumptions for evaluating insurers' holding companies, related to "General: Principles Of Corporate And Government Ratings," which we published on June 26, 2007, on RatingsDirect. We are publishing this article to help market participants better understand our approach to reviewing insurance companies. This article partly amends and supersedes "Property/Casualty: Holding Company Analysis"; "Life Insurance Criteria: Holding Company Analysis"; and "Health Insurance Criteria: Holding Company Analysis," published on May 21, 2007; "General Insurance Criteria: Holding Company Debt Rating Criteria," published on July 7, 2000; and "General Insurance Criteria: Holding Company Analysis and Consolidated Groups," published on Nov. 13, 2000. Overall, we do not expect significant ratings actions stemming from this criteria update. This article is part of a broad series of measures announced last year to enhance our governance, analytics, dissemination of information, and investor education initiatives. These initiatives are aimed at augmenting our independence, strengthening the rating process, and increasing our transparency to better serve the global markets. In all sectors, Standard & Poor's evaluates the parent companies of insurance organizations relative to the operating insurance company subsidiaries that they own. In the simplest cases, the holding-company evaluation is directly related to the creditworthiness of the subsidiary. This approach is used if the holding company is a true holding company, for example, if the holding company has no operating characteristics in its own right. It also is used if the structure is direct (no intermediate holding companies) or if there is essentially one subsidiary. The standard gap for holding companies is two to three notches lower than the financial strength rating on the operating company. A gap of this size recognizes the dependence on a dividend stream from subsidiaries for debt, preferred-stock servicing, or both. It also recognizes that regulatory intervention can restrict the flow of funds to the holding company. For a thorough description of the notching differential between the holding company and operating company, see "Flexible Gapping Of Ratings Reflects Regional Variations In Structural Subordination As Well As Differing Debt-Servicing Capacities," published on May 25, 2005. That being said, there are several aspects of holding-company analysis that Standard & Poor's uses in making its overall evaluation of these organizations. Generally, the rating on an insurance holding company is influenced not only by the financial security of its operating subsidiaries, but also by the capital structure employed by the organization. The level of financial leverage and coverage of interest and preferred dividends at a holding company ultimately might not only affect the debt and preferred stock ratings on the holding company, but also could affect the operating companies' financial security, and therefore their rating. In the case of a holding company with several subsidiaries in diverse sectors--such as a major life insurance subsidiary and a major property/casualty subsidiary--the senior debt rating on the parent could be based on the portfolio of business owned and the quality of those businesses. If the portfolio is well balanced and complementary and the levels of financial leverage and interest coverage are strong, the senior debt rating on the parent would generally be the same as its issuer credit rating (also called counterparty credit rating). It also could be equal to the issuer financial strength rating on the subsidiaries or could even be higher than that of one of the subsidiaries. Therefore, it is possible that the gap between the holding company and its wholly owned subsidiary or subsidiaries could be narrowed from the standard two to three notches. This is likely to occur if any one of the three following circumstances is applicable: Earnings and assets are, in our opinion, well diversified at the holding-company level. Significant nonregulated operating subsidiaries are deemed able to upstream dividends with limited restrictions. Measures of the holding company's financial strength--such as financial leverage and fixed-charge ratios--are, in our view, significantly stronger than the standard rating gap would indicate under a variety of scenarios. When a debt issue is junior to other debt issues of the company and, therefore, has relatively worse recovery prospects, that

issue is assigned a lower rating than the issuer credit rating. As a matter of rating criteria, the differential is limited to one rating designation or notch in the investment-grade categories. For example, when the issuer credit rating is 'A', junior debt may be rated 'A-'. In the speculative-grade categories, where the possibility of default is greater, the differential is up to two rating notches. Notching relationships between debt issues (or other financial obligations) are based on broad guidelines that combine consideration of asset protection and debt ranking. The guidelines are designed to identify material disadvantage for a given issue by virtue of the existence of better-positioned obligations. Notching relationships are subject to review and change when actual developments vary from expectations. Changes in notching do not necessarily have to be accompanied by changes in default risk.

Evaluating Management's Financial Policy U.S. insurers continue to access the capital markets via a variety of issuances, including common equity and debt, hybrid equities like trust preferreds, mandatory convertible securities, and surplus notes. Standard & Poor's attaches great importance to management's philosophies and policies toward financial risk and its appetite for financial risk tolerances, especially in light of prior actions. More sophisticated business managers tend to follow policies that recognize cash flow parameters and the interplay between business and financial risk. Not all firms that have set goals have the wherewithal, discipline, or management commitment to achieve these objectives. A company's leverage goals, for example, need to be viewed in the context of its past record and the financial dynamics affecting the business. If management states, as many do, that its goal is to operate at 35% debt to capital, Standard & Poor's might factor that into its analysis only to the extent it appears plausible. For example, if a company has aggressive spending plans, that 35% goal would carry little weight in our analysis unless management has committed to a specific program of asset sales, equity sales, or other actions that in a given time period would produce the desired results. We will tend to view as a positive a strategic approach consisting of operating for the good of the business as management sees it. Certainly, prudence and credit quality should be among the most important considerations, but financial policy should be consistent with the needs of the business rather than an arbitrary constraint, for instance with a view to obtaining a higher rating. Indeed, if we see that opportunities are foregone merely to avoid financial risk, the firm could be viewed as making poor strategic decisions. In fact, it could be sacrificing long-term credit quality for the facade of low risk in the near term. In any event, pursuit of the highest rating attainable is not necessarily in a company's best interests. We might view a company with virtually no financial risk as not being in an optimal position to meet the needs of its various constituencies. An underleveraged firm might not be minimizing its cost of capital, thereby depriving its owners of potentially greater value for their investment. In this light, we consider a corporate objective of having debt rated 'AAA' or 'AA' to be, at times, suspect. Whatever a company's financial track record, an analyst must be skeptical if corporate goals appear irrational. We believe that a firm's conservative financial philosophy should be consistent with the firm's overall goals and needs.

Consolidated Holding Companies Ratios Standard & Poor's primarily uses a variety of ratios to analyze the risks associated with insurance holding companies' financial leverage. The key ratios used to analyze the financial leverage risks are: Debt leverage, Financial leverage, Generally accepted accounting principles (GAAP)/International Financial Reporting Standards (IFRS) interest coverage, GAAP/IFRS fixed-charge coverage, U.S. unrestricted cash interest coverage, and U.S. unrestricted cash fixed-charge coverage.

Primary leverage ratios The two primary leverage ratios that are used to evaluate insurance companies are shown in chart 1. Debt leverage represents the proportion of a firm's assets financed with debt instead of equity. Debt leverage benefits equity holders as long as the borrowed funds generate a return in excess of the cost of borrowing. Higher leverage increases risk to the company as the inability to make required interest and principal payments could result in a payment default and bankruptcy or insolvency for the company. The degree of debt leverage provides an indication of the long-term solvency of a firm. Similar to the debt-leverage ratio, financial leverage is nevertheless a wider measure of the quality of capital incorporating debt, debt-like, and hybrid instruments relative to the economic means available to the company. For both the debt leverage and financial leverage calculations, debt includes both long- and short-term debt. Further, both capitalized leases and the net present value of off-balance sheet operating leases are included in debt. Total debt excludes debt qualifying as operational leverage. Total capital includes economic capital available (defined in a later section), debt, and hybrid capital. The ratios are calculated both

including and excluding any retirement plan deficits. However, the predominant measure of leverage will include pension deficits. These ratios are calculated on a consolidated company basis. When consolidated company leverage is analyzed, hybrid equity raised at the operating company will be treated as debt, and the servicing of this capital will be included in the debt-coverage ratios. The logic for this is that the servicing of operating-company hybrid equity is usually at least pari passu with holding company debtholders and can be senior to these debt obligations. GAAP/IFRS coverage ratios

There are several income-statement and cash flow-based ratios that are used to evaluate an insurer's debt-servicing capabilities. The primary measures would be GAAP or IFRS-based (see chart 2): These metrics indicate the margin of comfort for lenders and bondholders that their debts can be serviced by the borrower. These coverage metrics are a key factor in determining a company's financial flexibility--its ability to service existing debt and fixed-cost funding and ability to access the capital markets if necessary. The interest and fixed-charge coverage metrics are distinct in that they each illustrate coverage in terms of different funding requirements. The interest-coverage metric illustrates the extent to which an entity is able to meet the annual servicing requirement on its debt from current-year earnings. As such, we adjust interest expense to include the interest associated with all debt instruments as well as the interest on hybrid equity classified as debt by Standard & Poor's, but exclude interest on debt qualifying for equity credit. The fixed-charge coverage metric is similar to the interest-coverage ratio, but presents a broader measure in illustrating the extent to which an entity is able to meet the total fixed annual servicing requirements from current-year earnings. As such, Standard & Poor's calculation of fixed charges includes the interest expense associated with all debt instruments irrespective of whether or not they qualify for equity credit within Standard & Poor's capital analysis, dividends payable on preferred stock, and other recurring financing charges. Other recurring financing charges could include items such as the arrangement fee on sources of contingent funding, for instance letters of credit, or any regular contractual costs that are payable regardless of operating performance. We calculate both the interest- and fixed-charge coverage ratios on a consolidated company basis. Further, these metrics both include implicit interest on noncancelable leases and exclude interest expense on debt qualifying as operational leverage. Of note, the interest expense in our calculation is always the gross interest expense before subtracting capitalized interest. Where a company issues zero coupon or discounted interest bonds, some or all of the interest is capitalized rather than being paid out as periodic cash interest. We take this capitalized interest expense into consideration in our calculation of interest coverage, as one of the goals of the ratio is to measure how well economic earnings cover economic interest expense. Standard & Poor's recognizes that there is a benefit to the firm's financial flexibility in being able to defer interest payments, as in the cases of zero-coupon debt, income bonds, or intercompany debt. We will deduct from EBITDA any amortization of deferred acquisition costs (DAC) and the amortization of the value of business acquired (VOBA) since we view the amortization of these intangibles as the equivalent of an ongoing new business expense. EBITDA will be calculated on a primary basis without the effect of realized or unrealized capital gains from investments. For those companies with significant equity exposures, we will on a secondary basis look at coverage ratios including realized gains or losses. While the cited metrics use EBITDA as the numerator, we also look at these coverage metrics on an EBIT basis, which includes the impact of both depreciation and amortization. The results could be significantly different in circumstances where an entity is carrying a material amount of goodwill or intangible assets on its balance sheet. For European life insurers and other life insurers that provide embedded value (EV) operating profits, we will also analyze: pretax EV operating profit before interest and short-term investment fluctuations/interest on total debt plus interest on nonqualifying hybrid securities; as well as pretax EV operating profit before interest and short-term investment fluctuations/interest on total debt plus interest on total hybrid securities plus other recurring charges. U.S. unrestricted cash coverage

The primary unrestricted cash coverage metrics used in our analyses of U.S. insurers and reinsurers are as follows (see chart 3): U.S. unrestricted cash coverage measures the various sources of cash available for upstreaming to the holding company as well as the net cash being generated at the holding company, and compares these sources with the interest expense for U.S. insurers and reinsurers. We view U.S. unrestricted cash coverage as an important differentiation of investment-grade companies versus speculative-grade companies, although it is not as useful in

differentiating among the higher rating categories. This is because Standard & Poor's evaluates insurers as ongoing enterprises, which we believe are better covered under going concern accounting, while statutory accounting is liquidation based. Higher-rated firms usually are viewed as having greater flexibility to meet interest payments as they become due. Still, insurance holding companies need to pay their bills while operating within statutory restrictions on their insurance subsidiaries, and we typically view companies that seem likely to maintain low statutory interest coverage on an ongoing basis as speculative. With primary emphasis on GAAP/IFRS-based coverage in this analysis, Standard & Poor's focus on the U.S. unrestricted cash coverage centers on funds available for dividend payments up to the parent rather than on numbers purely derived from statutory income. This means that companies operating in states with dividend restrictions in the form of "the lesser of 10% of the prior year's statutory capital or the prior year's net operating income" are likely to be at a disadvantage versus those companies located in a "greater of" state.

**Double leverage** The excess double leverage adjustment represents the company's reliance on debt and excess hybrid capital to fund its equity investments in subsidiaries. For example, stock insurance groups can issue debt at senior holding-company levels and downstream it to insurance operating subsidiaries as equity, a process using double leverage, where the enterprise receives credit as capital available to support insurance operations under both Standard & Poor's and regulatory risk-based capital models. Analytically, an issue arises if servicing and/or repayment of part or all of the holding-company debt is dependent on a continuing flow of funds from the insurance operating subsidiaries. In that circumstance, the holding-company debt becomes, in effect, a call on the capital of the operating insurance subsidiaries and brings into question the permanency of such equity in the latter's capital structure. In Standard & Poor's opinion, this downstreamed debt takes on more characteristics of a form of hybrid equity similar to a surplus note. Generally, the more double leverage in the consolidated organization, the larger the holding company's cash flow demands will be to service interest payments and debt retirements, and thus the greater likelihood that the holding company will seek significant capital distributions or other cash payments from the operating company. Due to the potential quality of capital concerns with high double leverage, Standard & Poor's has set levels for capital credit for the use of debt and hybrid capital to fund operating company capital at or below which double leverage will generally not have a negative impact on our analysis of the company. In setting these levels, we evaluated the use of debt and hybrid capital to fund operating company capital in the context of local regulation. Capital credit for the use of double leverage will be based on Standard & Poor's view of the local regulatory enforcement of structural subordination. In light of a growing trend by regulators to limit the use of debt and hybrid capital to fund insurance operating company capital, double leverage will be expressed as a percentage of group consolidated capital, which better captures these regulations. Where structural subordination is high and regulators allow holding-company debt and hybrid instruments to fund operating company capital, Standard & Poor's double leverage tolerance levels will be higher. Where structural subordination is low and regulators exclude holding company debt from group solvency capital, Standard & Poor's double leverage tolerance levels will be lower.

**Table 1 Maximum Tolerances For Double Leverage And/Or Hybrid Equity Usage**

--CASES WHERE ENFORCEMENT OF STRUCTURAL SUBORDINATION IS HIGH AND REGULATORS ALLOW HOLDING-COMPANY DEBT TO FUND OPERATING-COMPANY CAPITAL (E.G., U.S. AND BERMUDA)--		--CASES WHERE ENFORCEMENT OF STRUCTURAL SUBORDINATION IS LOW AND REGULATORS DISALLOW HOLDING-COMPANY DEBT TO FUND OPERATING-COMPANY CAPITAL (FOR EXAMPLE, EUROPE AND CANADA)--	
CATEGORY MAXIMUM TOLERANCE		CATEGORY MAXIMUM TOLERANCE	
Total double leverage	Up to 45% of capital	Total double leverage	Up to 35% of capital
Debt-funded double leverage	Up to 20% of capital	Debt-funded double leverage	Up to 0% of capital
Category 1' hybrid tolerance (three-year mandatorily convertible)	Up to 25% of capital	Category 1' hybrid tolerance (three-year mandatorily convertible)	Up to 35% of capital
Sublimit 'Category 2' hybrid equity	Up to 15% of capital	Sublimit 'Category 2' hybrid equity	Up to 25% of capital

For capital models that are based on operating company statutory balance sheets, the excess over the double leverage tolerances are deducted from total adjusted capital (TAC). For capital models that are based on consolidated GAAP/IFRS balance sheets, qualifying hybrid capital is added to TAC, subject to the tolerance levels referred to in table 1. Although the maximum double leverage tolerance for high equity

content and intermediate equity content hybrid capital is 10% greater in Europe and Canada than it is for the U.S. and Bermuda, Standard & Poor's still views this incremental amount of hybrid funding as debt-like when evaluating the leverage of insurance holding company. These jurisdictions are seen as having low enforcement of structural subordination, and regulators disallow holding-company debt to fund operating-company capital. The allowance of the higher amount of hybrid capital in double leverage calculations treats the incremental hybrid funding as debt-like from an analytic perspective while recognizing that regulators accept this higher level of hybrid funding of operating capital when evaluating insurance groups.

**Holding Company Ratio Guidelines** The following tables provide holding company ratio benchmarks by rating category.

**Table 2 Debt Leverage**

RATING CATEGORY	DEBT LEVERAGE
AAA	Less than 15%
AA	15%-25%
A	25%-35%
BBB	35%-45%
BB	45%-65%

**Table 3 Financial Leverage (Assuming Intermediate Equity Hybrids)**

RATING CATEGORY	FINANCIAL LEVERAGE
AAA	Less than 30%
AA	30%-40%
A	40%-50%
BBB	50%-60%
BB	60%-80%

**Table 4 GAAP Interest Coverage Ratio**

RATING CATEGORY	GAAP INTEREST COVERAGE
AAA	10x or more
AA	8x or more
A	6x-8x
BBB	3x-5x
BB	2x-3x

We use these ratios as guidelines only. For a given rating category, financial ratios can be expected to vary with the business or operating profile of a company. We generally believe that a company with, in our view, a stronger competitive position, more favorable business prospects, and more predictable earnings can afford to undertake added financial risk while maintaining the same credit rating. Although they provide insight into ratings in general, relying solely on numbers would oversimplify the entire thought process behind a specific rating. Guidelines focus on only a few ratios. We use many additional measures to round out the analysis or to focus on specific issues. Obviously, strengths reflected in one financial measure can offset or balance relative weaknesses in another. Standard & Poor's ratings are our opinion of a company's ability to meet its obligations in the future, and ratio standards relate to a company's expected financial condition. Ratings generally reflect our expectation of performance over the anticipated course of business cycles and not in what is viewed as a peak or trough period. Ratio standards do not always conform to an as-reported basis. Rather, a firm's financial figures may be adjusted to reflect ongoing performance.

**Defining Capital: A Global Approach** Standard & Poor's calculates total capital on a globally consistent basis. For our leverage calculations, total capital is defined as follows in chart 6.

**Table 5 Components Of ECA**

REPORTED SHAREHOLDERS EQUITY PLUS EQUITY MINORITY INTERESTS*	Plus Equalization/catastrophe reserves*	Plus Prudential margins included in reserves	Minus Proposed shareholder dividends not accrued	Minus Standard & Poor's impairment of goodwill	Minus Other intangible assets	Minus On-balance-sheet unrealized gains/(losses) on life bonds*	¶ (post tax\$)	Plus Off-balance-sheet unrealized gains/(losses) on investments other than life bonds*	(post tax\$)	Minus Off-balance-sheet pension deficits (post tax\$)	Minus On-balance-sheet pension surpluses (post tax\$)	Plus Up to 100% of off-balance-sheet life value of in-force (post tax\$)	Plus Property/casualty loss reserve surpluses/(deficits) (post tax\$)	Plus Property/casualty loss reserve discount	Plus/Minus Analyst adjustments
*Where not already included in shareholders' equity. ¶The above comments provide a base position for the analysis. However, the issues arising from different accounting standards in different regulatory regimes mean further analytical judgment may be required to better reflect the economic position. We have therefore published extended guidance on possible adjustments that may be appropriate in particular circumstances (see "Gauging the Impact Of Unrealized Losses On Insurers' Financial Strength," published on Oct. 30, 2008, and "Application: Standard & Poors's GAAP/IFRS Capital Model," published on Sept. 11, 2008, on RatingsDirect).															

§Where tax effect not disclosed use effective tax rate.

**ECA--Economic capital available.** Of note, while Economic Capital Available (ECA) is the measure used for capital available in our leverage calculations, TAC is the measure used for capital available to meet a company's capital requirements in Standard & Poor's capital adequacy model. TAC is a narrower capital measure reflecting a nearer term view on the realization of assets. It reflects, for example, the ability to partly realize the off-balance-sheet value of in force life insurance business through reinsurance or securitizations in a relatively short timeframe. It is also influenced more by the current regulatory views of capital rather than an economic view. A thorough description of the components of TAC, including related adjustments, is given in our criteria article titled, "Analysis Of

Insurer Capital Adequacy," published on April 22, 2009, on RatingsDirect. ECA is a broader, more economic view of owner capital with a longer term view on realizing the value generated by the company's business activities. It reflects, for example, the ability to realize the value of goodwill over the long term through asset sales or enhanced earnings. ECA is used in Standard & Poor's leverage measures, reflecting the more economic view of the way the capital needs of companies are funded. Standard & Poor's provides ratings on companies in many parts of the world. In so doing, even with the advent of IFRS, we encounter many different accounting frameworks. One of the objectives of ECA is to normalize the resulting measures of owner equity onto a more consistent basis.

**Description Of ECA Adjustments**

**Equity minority interests** Equity minority interests will often already form part of shareholder equity, but if not, we will add them to ECA as they constitute capital that we view as being under the control of a group's management.

**Equalization/catastrophe reserves** Equalization and catastrophe reserves are not permitted under U.S. GAAP or IFRS because they relate to future unexpected events. However, they still remain in some national GAAPs and statutory accounting. Standard & Poor's regards these reserves as equity.

**Prudential margins included in reserves** In some countries, such as Australia, explicit margins are required as part of reported liabilities. A proportion of these margins are added back to equity for ECA purposes. That proportion varies depending on the margin of sufficiency included in the liabilities.

**Proposed shareholder dividends not accrued** If the financial statements include a proposed level of shareholder dividend relating to the past financial year that is not accrued in the balance sheet, we would typically deduct that amount from shareholder equity in deriving ECA.

**Goodwill** Standard & Poor's analysis of goodwill continues to be a qualitative assessment. Standard & Poor's will continually review an organization's business-segment cash flows and the sustainability of cash flows used for its Financial Accounting Standards Board Statement (FAS) 142 impairment testing. Furthermore, Standard & Poor's will aggressively discount or remove the tax affected balance of goodwill (where the goodwill is tax-deductible) from the balance sheet and all holding company ratios when Standard & Poor's believes the goodwill could be impaired. This is the reason that Standard & Poor's might also look at ratios such as debt to tangible capital and debt to EBITDA in addition to traditional leverage ratios.

**Unrealized gains/(losses) on investments** Treatment of unrealized gains will depend on the balance sheet treatment of liabilities. TAC may include full credit for the market value of investments, except for bond investments matched with nonlinked (or general account) life insurance liabilities. However, bond investment market values may be included in TAC and ECA if matching balance sheet liabilities are valued on a market consistent basis (that is, where movements in interest rates affect both asset and liability values). Accordingly, where unrealized gains/losses are on balance sheet, gains/losses on bonds matched with nonlinked (or general account) life insurance liabilities usually are removed from TAC and ECA. However, if liabilities are valued on a market consistent basis, no adjustment is made. Conversely, where unrealized gains/losses are off balance sheet, gains/losses on investments other than bonds matched with nonlinked (or general account) life insurance liabilities typically are added to TAC and ECA (when evaluating insurance reporting on a U.S. statutory accounting basis, no adjustment to TAC or ECA is made). For non-life business and shareholder funds, the market value of bonds will normally be added to TAC if off balance sheet. The above comments provide a base position for the analysis. However, the issues arising from different accounting standards in different regulatory regimes mean further analytical judgment may be required to better reflect the economic position. We have therefore published extended guidance on possible adjustments that may be appropriate in particular circumstances. (For more information see our criteria article "Standard & Poor's GAAP/IFRS Capital Model," published on Sept. 11, 2008, on RatingsDirect.)

**Retirement plan obligations** Defined-benefit employee pension (or long-term health care) scheme deficits are increasingly deducted on balance sheets in arriving at shareholders' equity. Where such deficits are off balance sheet, they will be fully reflected in ECA. This includes off-balance-sheet deficits remaining where the corridor method is used. All on-balance-sheet amounts related to defined-benefit employee pension and health care scheme surpluses will also be removed from ECA, given the lack of fungibility of such surpluses. These unfunded liabilities are viewed as debt-like in nature given that these are financial obligations that will ultimately be funded from future cash flows. In making these calculations, Standard & Poor's will use the fullest measure of the unfunded liability on an after-tax basis: the projected benefit obligation minus net assets, which is the

ultimate obligation for an ongoing enterprise (by contrast, the accumulated benefit obligation does not allow for future salary increases). We do not use the corridor method to reduce the unfunded benefit obligations. To reflect the debt-like characteristics of pension deficits, leverage calculations are analyzed, including and excluding pension deficits. The predominant measure of leverage will be calculated to include pension deficits. However, the analyst will consider several factors including the company's proposed funding timetable for the deficit and any plans in place to renegotiate employees' benefits. Value of in-force life insurance business and life deferred acquisition costs In our opinion, balance sheets tend to understate the economic value of life insurance business globally, although the degree of understatement varies. The value of in-force (VIF) life insurance business, as defined by Standard & Poor's, is the difference between the EV and the value at which the business is carried on the balance sheet. Hence, VIF varies depending on the underlying accounting regime. Under U.S. GAAP, for example, VIF would be reduced by the amount of DAC. Adjustments will be made to avoid any double counting of the credit given for VIF, DAC, VOBA, and goodwill. ECA includes up to 100% credit for VIF (although this credit is haircut for TAC purposes). Where applicable, Life DAC is already included in shareholder equity and requires no adjustment to arrive at ECA (but a minimum 50% haircut is required to arrive at TAC). The VIF and DAC credits may be reduced based on our analysis of EV or DAC recoverability. Such reductions may occur if, in our view, the assumptions used by the company are not sufficiently conservative. Where available and audited, Standard & Poor's uses EV analysis to normalize its balance sheet analysis (and more importantly its earnings analysis) across the globe. Increasingly EVs are disclosed in supplementary financial statements, but are generally not included in balance sheets shown in the primary financial statements. Adjustments will be made to avoid any double counting of the credit given on balance sheet for VIF, DAC, VOBA, and goodwill.

Property/casualty loss reserve deficits/surpluses Where Standard & Poor's determines that a company's loss reserves are either deficient or in surplus (by our own reserve analysis, external actuarial review, or other means), we will adjust ECA accordingly. There should be no double counting of credits for loss reserve surpluses and prudential margins in reserves. Discount on property/casualty loss reserves ECA is adjusted to eliminate any explicit or implicit GAAP discounting of property/casualty loss reserves. Standard & Poor's then calculates its own estimate of the time value of money based on the non-life reserve duration and the relevant 10-year government bond yield (a weighted average for companies with reserves denominated in more than one currency). The loss reserve discount is computed as: The above discount calculation is applied to loss reserves after any adjustments for deficits/surpluses referred to above. Hybrid Capital Preferred stock and hybrid capital can qualify for treatment as equity for the purpose of calculating capital structure ratios. Some preferreds and hybrids are viewed as debt--or something between debt and equity--depending on their features and the circumstances. Standard & Poor's employs a simple methodology for analyzing hybrid securities that parallels the regulatory approach, classifying hybrids into three categories, reflecting their relative degree of equity strength. We include hybrid capital in our published total capital measures up to limits established in relation to the following categories: Table 2 summarizes the criteria for inclusion of hybrid capital securities in Standard & Poor's published total capital measures for insurance companies. The limits for inclusion by category broadly parallel the regulatory policy of capping the inclusion of hybrids in regulatory capital, and allow for global comparisons of capital measures. Table 6 Classification Of Hybrid Securities For Financial Services Companies

CATEGORY	EXAMPLES	HIGH EQUITY CONTENT
Short-dated mandatory convertible securities (less than three years)	High-quality hybrids with participating coupons	INTERMEDIATE EQUITY CONTENT
STRONG	Perpetual preferred shares	
Most bank and insurer undated deferrable Tier 1 instruments	Insurance long-dated hybrid instruments (residual maturity of 20 years or more) with coupon deferability	ADEQUATE
Most, but not all, bank Upper Tier 2 instruments	Limited life preferred shares (e.g. U.S. trust preferred)	Eligible funded
contingent capital for insurers	LOW EQUITY CONTENT	
Dated hybrid instruments with a residual maturity of five years or less	Auction-preferred securities	Nondeferrable subordinated debt
Instruments with put options	A thorough description of hybrid capital is given in the criteria article titled, "Hybrid Capital Handbook," published Sept. 15, 2008, on RatingsDirect.	

Hybrid Capital Tolerance In Operating Insurers' Capital Structures From the policyholders' perspective, common equity and surplus provide the greatest level of support, but for mutuals that cannot issue stock, selling hybrid capital is the only

way to raise additional capital externally and improve financial strength. The resulting treatment of hybrid securities in insurer's capital structures ties in with what Standard & Poor's understands to be regulators' maximum tolerance for these types of instruments. However, to the extent that a regulator disallowed a hybrid capital issuance within a particular insurer's capital structure, that issuance would be treated as debt for risk-based capitalization model and hybrid equity tolerance purposes. Operating Leverage As insurers participate in match-funded transactions that involve the raising of external funding, Standard & Poor's is often asked whether we view these companies' debt or debt-like obligations as financial leverage or operating leverage. Financial leverage is generally meant to measure the amount of debt or debt-like funding that is used by an insurer to meet its general capital needs. Alternatively, insurers might use debt or debt-like instruments to fund a discrete pool of financial assets--such as bonds or other high-quality, fixed-interest instruments. In these cases, Standard & Poor's may treat this debt as operational leverage when there is strong asset/liability matching or active risk management employed and when we see little to no risk that the assets will not be able to repay the funding. All debt (and associated interest and income) judged to be operational leverage would be excluded from Standard & Poor's financial leverage and coverage calculations. A thorough description of operational leverage is given in our criteria article titled, "Insurance Company Debt: Operating Leverage Or Financial Leverage?," published on April 19, 2004. Off-Balance-Sheet Financing Off-balance-sheet items factored into our leverage analysis include the following: Operating leases, Debt of joint ventures and unconsolidated subsidiaries, Guarantees, Receivables that have been factored, transferred, or securitized, and Contingent liability, such as potential legal judgments or lawsuit settlements. We use various methodologies to determine the proper adjustment value for each off-balance-sheet item. In some cases, the adjustment is straightforward. For example, the amount of guaranteed debt can simply be added to the guarantor's liabilities. Other adjustments are more complex or less precise. Nonrecourse debt of a joint venture may be attributed to the parent companies, especially if we consider them to have a strategic tie to the operation. The analysis may burden one parent with a disproportionate amount of the debt if in our view that parent has the greater strategic interest or operating control or its ability to service the joint-venture debt is greater. Other considerations that affect a company's willingness to walk away from such debt--and other nonrecourse debt--include shared banking relationships and common country location. In some instances, the debt may be so large in relation to the owner's investment that the incentives to support the debt are minimized. In virtually all cases, though, the parent would likely invest additional amounts before deciding to abandon the venture. Accordingly, adjustments would be made to reflect the owner's current and projected investment, even if the venture's debt were not added to the parent's balance sheet. The debt-equivalent value of noncancelable operating leases is determined by calculating the net present value of minimum operating lease obligations as reported in the annual report's footnotes. In calculating the net present value of the lease payments, a discount rate of either 10% or a weighted average cost of debt is used. Further, the lease amount beyond five years is assumed to mature at a rate approximating the minimum payment due in five years. The variety of lease types could require the analyst to obtain additional information or use estimates to evaluate lease obligations. Standard & Poor's includes the net present value of the noncancelable operating leases in our leverage calculations and the implicit interest expense of the noncancelable leases in our GAAP/IFRS coverage metrics. Surplus Notes In U.S. Insurers' Capital Structures Surplus notes provide long-term funding at a low cost of carry for U.S. insurers because the interest paid on the notes is only slightly higher than the insurer's investment rate of return. If structured properly, the notes are treated as surplus by U.S. insurance regulators. Depending on the structure and maturity of these instruments, Standard & Poor's also views surplus notes as equity-like in nature, similar to other hybrid instruments, generally with positive implications for the ratings on an insurer's policy obligation. Surplus notes are capital instruments that U.S. regulators generally treat as part of the capital and surplus of an operating insurance company. The notes, which usually pay interest semiannually or annually, have a stated maturity, though the issuer typically has the option to call some notes. Surplus notes have restrictive repayment features that give regulators the ability to prevent principal and interest payments if an insurer's financial condition deteriorates. The notes also contain equity features, that is, they are subordinated in interest and principal to debt and policy obligations. Yet the insurer is not forced into



insolvency or receivership if interest or principal is not paid. Standard & Poor's will usually view surplus notes as equity-like in nature if their maturity is consistent with that of long-term capital. As with other hybrid instruments and preferred stock, surplus notes generally receive credit as equity in our analysis if they have a remaining term of at least 20 years. If surplus notes purchased by unaffiliated third parties constitute more than 15% of total capital, the ratings gap between the rating on the surplus note and the counterparty credit rating on the insurer's is likely to be wider, and Standard & Poor's would likely give less equity credit for the note in its analysis. If surplus notes are issued to unaffiliated third parties by an operating company that is ultimately owned by a holding company, we will treat any amount exceeding 15% of capital as debt. If the surplus notes are issued to an affiliate, Standard & Poor's may consider incremental amounts of surplus notes exceeding the 15% threshold as equity capital. Often these notes are issued to the parent as a part of a tax-efficiency strategy. In situations where the parent and subsidiary do not file a consolidated tax return, the tax deduction that the parent receives for debt servicing cannot offset the subsidiary's earnings. By issuing a surplus note at the subsidiary level, the debt-servicing expense can offset the subsidiary's earnings. The parent usually commits to treat the note as a permanent part of the subsidiary's capital base and commits to restructure the note to avoid a default. In certain situations, Standard & Poor's may give equity credit to up to 30% of a subsidiary's capital in the form of parent-held surplus notes, for instance if we view the subsidiary as strategically important or core to the parent and the parent has committed to treat the surplus notes as a permanent part of the capital structure.

**Commercial Paper And Confidence-Sensitive Debt** Commercial paper consists of unsecured promissory notes issued to raise short-term funds. Typically, only companies of strong credit standing can sell their paper in the money market, though there was some issuance of lesser-quality, unrated paper prior to the speculative-grade bond market collapse late in 1989. The commercial paper and confidence-sensitive debt markets' acute sensitivity to credit quality and the speed with which confidence can be lost are of great concern to Standard & Poor's. When a crisis of confidence strikes, issuers that do not have alternative sources of liquidity could default on their commercial paper or any other obligations coming due. We believe all prudent issuers of confidence-sensitive debt should have alternative sources of liquidity. The purpose of backup liquidity is to protect the issuer in the event that investors are reluctant to roll over short-term debt because of developments--for example, bad business conditions, a lawsuit, management changes, a rating change--affecting a single issuer or group of issuers, even though Standard & Poor's may view the issuer as creditworthy. In addition to examining liquidity backup for rated commercial paper programs, Standard & Poor's reviews liquidity backup for all confidence-sensitive, short-term debt for all rated insurers. Confidence-sensitive, short-term debt is defined as rated or unrated commercial paper issued in all markets (based on authorized amount unless the company has committed in writing to maintain a lower amount outstanding); borrowings under money market lines; short-term borrowings from mutual funds and other organizations that are not banks; master notes; loans due on demand; and current maturities of publicly held long-term debt, including medium-term notes. Borrowings not considered confidence-sensitive would be traditional bank loans and debt owed to an affiliate. Evaluation of an issuer's commercial paper and other short-term debt issues reflects Standard & Poor's opinion of the issuer's fundamental credit quality. The analytical approach is virtually identical to the one followed in assigning a long-term rating, and a strong link exists between the short-term and long-term rating systems. In effect, the minimum credit quality associated with the 'A-1+' rating on the commercial paper is the equivalent of an 'A+' long-term rating. Similarly, for commercial paper to be rated 'A-1', the long-term rating would need to be at least 'A-'. (In fact, the 'A+/A-1+' and 'A-/A-1' combinations are rare. Typically, 'A-1' ratings on commercial paper are associated with 'A+' and 'A' long-term ratings.) Conversely, the long-term rating will not fully determine a commercial paper rating because of the overlap in rating categories. However, the range of possibilities is always narrow. To the extent that one of two commercial paper ratings might be assigned at a given level of long-term credit quality, criteria to make that determination are as follows: Overall strength of the credit within the rating category is the first consideration. For example, a marginal 'A' credit would likely have its commercial paper rated 'A-2'; a solid 'A' would almost automatically be rated 'A-1'. Exceptional short-term credit quality would be another factor that determines which of two possible commercial paper ratings are assigned. For example, a company may possess substantial liquidity, providing

protection in the near or intermediate term, but suffer from less-than-stellar profitability, a longer-term factor. Or, there could be a concern that, over time, the large cash holdings may be used to fund acquisitions. (Having different time horizons as the basis for long- and short-term ratings implies either one or the other rating is expected to change.) Liquidity Backup Policies Ever since the Penn Central bankruptcy roiled the commercial paper market and some companies found themselves excluded from issuing new commercial paper, we have deemed it prudent for companies that issue commercial paper to make arrangements in advance for alternative sources of liquidity. This alternative backup liquidity protects companies from defaulting if they are unable to roll over their maturing paper with new notes, because of a shrinkage in the overall commercial paper market or some cloud over the company that might make commercial paper investors nervous. Many developments affecting a single company or group of companies—including bad business conditions, a lawsuit, management changes, a rating change—could make commercial paper investors flee the credit. Given the size of the commercial paper market, backup facilities should not be relied on with a high degree of confidence in the event of widespread disruption. A general disruption of commercial paper markets could be a highly volatile scenario, under which most bank lines would represent unreliable claims on whatever cash would be made available through the banking system to support the market. We neither anticipate that such a scenario is likely to develop nor assume that it never will. Having inadequate backup liquidity could affect both the short- and long-term ratings on the issuer, because it could lead to default, which would ultimately pertain to all of the company's debt. Moreover, the need for backup applies to all confidence sensitive obligations, not just rated commercial paper. Backup for 100% of rated commercial paper is meaningless if other debt maturities—for which there is no backup—coincide with those of the commercial paper. Thus, the scope of backup should extend to euro-denominated commercial paper, master notes, and short-term bank notes. The standard for insurance issuers has long been 100% coverage of confidence-sensitive paper for all but the strongest credits. Companies rated 'A-1+' provide 50%-75% coverage and companies rated 'A-1' provide 75%-100% coverage. We believe a higher-rated entity is less likely to encounter business reverses of significance and—in the event of a general contraction of the commercial paper market—the higher-rated credit would be less likely to lose investors. In fact, higher-rated companies could actually be net beneficiaries of a flight to quality. While backup liquidity normally relates only to outstanding paper—rather than the entire program authorization—in our view a company should anticipate prospective needs. For example, it may have upcoming maturities of long-term debt that it may want to refinance with commercial paper, which would then call for backup of greater amounts. We see available cash or marketable securities as ideal to provide backup (of course, we may "haircut" securities' apparent value to account for potential fluctuation in value or tollgate taxes surrounding a sale and it is critical to our analysis that they be immediately saleable). Yet the vast majority of commercial paper issuers rely on bank facilities for alternative liquidity. The high standard for backup liquidity has provided a sense of security to the commercial paper market—even though backup facilities are far from a guarantee that liquidity will, in the end, be available. For example, a company could be denied funds if its banks invoked material adverse change clauses. Alternatively, a company in trouble might draw down its credit line to fund other cash needs, leaving less-than-full coverage of paper outstanding, or issue paper beyond the expiration date of its lines. Still, notes that come due only 11 months-12 months from now typically would not have a liquidity backup so far in advance. Companies would normally begin to actively arrange liquidity backup approximately six months prior to maturity. Similarly, 12-month notes that automatically extend their maturity month by month do not usually get backup arrangements from day one. Companies are generally able to arrange backup when and if the extensions stop, leaving a full 12 months to do so. Extendible commercial notes (ECNs) provide built-in backup by allowing the issuer to extend for several months if there is difficulty in rolling over the notes; accordingly, companies usually do not arrange for backup for them—that is, until the extension is effected. However, there is a risk that the issuer could tap backup facilities intended for other debt and use the funds to repay maturing ECNs, instead of extending. This risk is known as leakage. Accordingly, for issuers that provide 100% backup, unbacked ECNs should not exceed 20% of extant backup for outstanding conventional commercial paper. For all issuers—even if they provide 100% backup—we review whether the first few days of upcoming maturities are backed with excess cash or funding facilities that provide for immediate

availability. For example, a bank backup facility that requires a two-day notification to draw down would be of no use in repaying paper maturing in the interim. The same would hold true if foreign exchange is needed, and the facility requires a few days to provide it. Moreover, if a company issuing commercial paper in the U.S. were relying on a bank facility in Europe, differences in time zones or bank holidays could prevent availability when needed. Obviously, a bank facility in the U.S. would be equally lacking with respect to maturing euro-denominated commercial paper. So-called swing lines typically equal 15%-20% of the program size to deal with the maximum amount that will mature in any three- to four-day period. Quality of backup facilities Banks offer various types of credit facilities that differ widely regarding the degree of the bank's commitment to advance cash under all circumstances. Weaker forms of commitment, while less costly to issuers, provide banks great flexibility to redirect credit at their own discretion. Some lines are little more than an invitation to do business at some future date. When reviewing back-up liquidity arrangements, we will determine whether all backup lines are in place and confirmed in writing. Preapproved lines or orally committed lines are viewed as insufficient. Specific designation for commercial paper is of little significance in our analysis. We will take contractually committed facilities in consideration. In the U.S., fully documented revolving credits represent such contractual commitments. Generally, the weaker the credit, the greater the need for more reliable forms of liquidity. As a general guideline, we believe that contractually committed facilities that cover 10-15 days of upcoming maturities of outstanding paper provide adequate coverage. Even contractual commitments often include "material adverse change" clauses, allowing the bank to withdraw under certain circumstances. While inclusion of such an escape clause weakens the commitment, we do not consider it critical--or realistic--for most borrowers to negotiate removal of "material adverse change" clauses. In the absence of a contractual commitment, payment for the facility--whether by fee or balances--is important because it generally creates some degree of moral commitment on the part of the bank. In fact, we view a solid business relationship as key to whether a bank will stand by its client. Standardized criteria cannot capture or assess the strength of such relationships. We therefore are interested in any evidence--subjective as it may be--that might demonstrate the strength of an issuer's banking relationships. In this respect, the analyst is also mindful of the business cultures in different parts of the world and their impact on banking relationships and commitments. We would tend to view dependence on just one or a few banks as an unwarranted risk. Apart from the potential that the bank will not have adequate capacity to lend, there is the chance it will not be willing to lend to this issuer. Having several banking relationships diversifies the risk that any bank will lose confidence in this borrower and hesitate to provide funds. Concentration of banking facilities also tends to increase the dollar amount of an individual bank's participation. As the dollar amount of the exposure becomes large, the bank may be more reluctant to step up to its commitment. In addition, the potential requirement of higher-level authorizations at the bank could create logistical problems with respect to expeditious access to funds for the issuer. On the other hand, a company will not benefit if it spreads its banking business so thinly that it lacks a substantial relationship with any of its banks. Table 7 Minimum Liquidity Backup Coverages CASH AND LIQUID ASSETS\* + COMMITTED BANK LINES¶ = A-1+ 50% of confidence-sensitive short-term debt (CS STD) A-1 75% of CS STD A-2 and lower 100% of CS STD \*Cash and liquid assets. The best source of liquidity is cash and immediately marketable securities. Marketability is the key analytical focus here, and only assets that can be easily sold in a short period should be considered "liquid". The best securities are government obligations, bank instruments, and corporate instruments that are readily disposable, particularly high-grade, public, short-term obligations such as high-grade commercial paper. Investment equity holdings, loan sales, and other nonmarketable assets would be looked at only as a last resort. ¶Committed bank lines. Banks offer various types of credit facilities that differ widely regarding the degree of the bank's commitment to advance cash under all circumstances. Ever-weaker forms of commitment, which are less costly to issuers, have become common in recent years, providing banks with great flexibility to redirect credit at their own discretion. There is no analytical distinction made between a 364-day and a 365-day facility. Even multiyear facilities will provide commitment for only a short time as they approach the end of their terms. It obviously is critical that the company arrange for the continuation of its banking facilities well in advance of their lapsing. It is important to note that even the strongest form of backup--a revolver with no "material adverse change" clause--does not enhance the underlying credit and does not lead to a

higher rating than indicated by the company's own creditworthiness. Credit enhancement can be accomplished only through an LOC or another instrument that unconditionally transfers the debt obligation to a higher-rated entity. We review the credit worthiness of the banks providing issuers with facilities for backup liquidity. Banks that we rate at an investment-grade level are viewed as offering sufficient financial strength for the purpose of providing a commercial paper issuer with a reliable source of funding. There is no requirement that the bank's credit rating equal the commercial paper issuer's rating; nonetheless, we would view it as a negative if most of a company's banks were only marginally investment grade. That could indicate an imprudent reliance on banks that might deteriorate to weaker, noninvestment-grade status.

**Guaranteed Commercial Paper And Other Parent And Subsidiary Arrangements** When a corporate commercial paper program is guaranteed, we analyze the guarantor's liquidity position. We will review bank lines and liquid assets and whether they are in the guarantor's name, rather than the issuer's, as the issuer, if it became insolvent or bankrupt, would likely lose access to its bank lines and would not be able to pay off commercial paper with its liquid assets in a timely fashion. If a subsidiary issues commercial paper without a parental guarantee, we typically assess the commercial paper backup based on the subsidiary's own liquid assets and bank lines, not the parent's, unless the rating on the subsidiary is based on substantial and timely support from a stronger parent. If a net worth maintenance agreement or other document allocates a specified amount of the parent's liquidity to the subsidiary, we might count that as part of the subsidiary's backup. We would then include the subsidiary's commercial paper in the parent's confidence-sensitive debt when backup for the parent's commercial paper is calculated and, more broadly, when the parent's liquidity is evaluated.

**Frequently Asked Questions** Over what timeframe does Standard & Poor's calculate ratios? Standard & Poor's may calculate many variations of the ratios to identify the key drivers of performance. Typically, Standard & Poor's looks for trends in ratios based on five-year historical data and projections up to three years. Why does Standard & Poor's sometimes make adjustments when calculating ratios? When we believe adjustments are appropriate to measure underlying performance, one-off profits or losses can be excluded, and profits and losses from acquisitions and disposals can be annualized. However, we take materiality into consideration. How important are financial ratios in determining the final rating? Standard & Poor's analysis is not confined to models, numbers, and ratios. Subjective analytical judgment often outweighs the hard numbers. Financial ratios are used to help form opinions on a company's performance in the analytical areas of Standard & Poor's rating process. How are ratios interpreted by Standard & Poor's? Guideline benchmarks are given for debt leverage, the interest-coverage ratio, and the capital adequacy ratio. Holding-company double leverage indicates how holding-company debt can be treated in Standard & Poor's risk-based capital models, and the hybrid equity ratio indicates how hybrid instruments can be treated in Standard & Poor's capital models and the leverage calculation. Other ratios are used to help measure operating performance, investment quality, and liquidity. How should ratio benchmarks be used? Benchmarks should be used with caution. A great deal of discretion is required in applying these guidelines. Although they provide insight into ratings in general, relying solely on numbers would be oversimplifying the entire thought process behind a specific rating. Guidelines focus on only a few ratios. Many additional measures are used to round out the analysis or to focus on specific issues. Obviously, strengths reflected in one financial measure can offset, or balance, a relative weakness in another. Are the guideline benchmarks applicable to statutory or GAAP/IFRS reported financials? The guideline benchmarks are applied to ratios that show earnings and net worth in a realistic economic light. GAAP/IFRS-based financial reports present a more economic view of financial performance than statutory data. In Europe, analysts use what they see as the best available financial information when calculating ratios to reflect economic worth and earnings, some of which might be confidential. In reality, the availability of public financial information can change from year to year. However, Standard & Poor's underlying analysis looks through the changes in accounting treatment and availability of financial information to assign a consistent final rating.

**Related Criteria And Research Analysis** Of Insurer Capital Adequacy, April 22, 2009 Gauging The Impact Of Unrealized Losses On Insurers' Financial Strength, Oct. 30, 2008 Hybrid Capital Handbook: September 2008 Edition, Sept. 15, 2008 Standard & Poor's GAAP/IFRS Capital Model, Sept. 11, 2008 Property/Casualty Insurance Criteria For Assessing Loss Reserve Adequacy For U.S.-Based Insurers/Reinsurers, Jan. 30, 2008 Flexible Gapping Of Ratings Reflects Regional

Variations In Structural Subordination As Well As Differing Debt-Servicing Capacities, May 25, 2005  
Insurance Company Debt: Operating Leverage Or Financial Leverage? April 19, 2004