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Hybrid Capital Handbook:
September 2008 Edition

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Appendix

Hybrid Capital Handbook: September 2008 Edition

[Note: This report updates and supersedes the prior version, which was published on May 12, 2008. Notable changes include the following:

- Standard & Poor's Ratings Services has modified the section on "Rating the Issue" to take account of our previously announced expansion of the 'C' rating definition. (See "Credit FAQ: How The Expansion Of The 'C' Rating Definition Affects Its Use For Hybrid Capital And Payment-In-Kind Instruments," published Aug. 1, 2008, on RatingsDirect.)
- We have expanded the sections on "Applying Hybrid Capital Equity Content in Credit Analysis: Corporate Methodology" and "Rating the Issue" to include discussion of hybrid issues of Real Estate Investment Trusts (REITs). (See "Criteria Revised For Rating U.S. Equity REIT Preferred Stock; \$12B In Securities Affected," published July 31, 2008, on RatingsDirect.)
- We have expanded the sections on "Equity Content Categories – 'High Equity Content'" and "Issue Features: Conversion into Common Stock and Share Settlement" to give guidance about speculative-grade issuers' mandatory convertible issues.
- We updated table 1 to reflect changes in responsibilities among Standard & Poor's analysts.
- We modified tables 2 and 4a to clarify their meaning.
- We added an appendix with summary tables as a ready reference.
- We have updated the default and deferral statistics in the section, "How Have Hybrid Capital Issues Performed?"]

Financing with common stock (i.e., common shares) is the best alternative from the perspective of an issuer's credit quality. Common stock has no maturity. If dividends are paid at all, they are discretionary--at least for most types of entities, in most countries. Moreover, common stock is subordinated to all the company's debt obligations and other liabilities. Yet, common stock is expensive in the eyes of issuers, since dividends are generally not tax deductible. Also, stockholders, as owners, have full participation in the company's upside, and issuing common stock dilutes existing shareholders' ownership interest.

Hybrid capital instruments have been developed with the goal of gaining recognition as being equity-like--that is, being granted "equity content" by Standard & Poor's and by other rating agencies--and, in some cases, being treated as capital by regulators. At the same time, these instruments are generally more cost-effective (e.g., by being tax deductible) than common stock, and typically do not affect the earnings-per-share denominator.

In assessing equity content, we pay close attention to the instrument's individual features. Ultimately, though, we take a holistic approach, considering the overall effect of the issue on the issuer's credit profile. In some cases, the issue's strengths can offset its weaknesses.

In assessing equity content, we use a common analytical framework across all sectors and geographic regions, categorizing equity content as "high," "intermediate," or "minimal" based on guidelines we have developed. We have a somewhat different perspective on issues of investment-grade issuers as compared to speculative-grade issuers, given differences in the relevant time frame and other pertinent rating considerations. Importantly, we

always take account of the issuer's particular circumstances, including management's financial policies. In assessing the credit implications of any actual transaction, issuer-specific considerations can always trump any generalized conclusions we might reach about an instrument.

Inevitably, across different sectors, there are varying approaches to incorporating conclusions reached about the instrument into the quantitative analysis, given differences in financial characteristics and measures. In any case, ratios tell only part of the story.

In assessing an instrument's equity content, we try to look past form, and focus on the economic substance. The past few years have seen a proliferation of instrument types and features. Some issues, in seeking to meet the varying preferences of different constituents, have become exceedingly complex. From our perspective, complexity often detracts from equity content: As it becomes more and more difficult to fathom how matters could play out under different scenarios, the potential for unintended consequences increases. Once there is a longer track record with such structures, our comfort level could grow.

In determining an issuer credit rating (ICR), the utilization of hybrid capital is just one of many factors that need to be considered. In fact, it is rare for this one factor in and of itself to be critically significant to the ICR outcome.

In their most common forms, hybrid capital instruments afford equity benefit to issuers, in part, by having ongoing payment requirements that are more flexible than interest payments associated with nondeferrable senior debt, and by being contractually subordinated to such debt. Obviously, these characteristics make the instruments more risky for investors than nondeferrable debt. In assigning issue ratings to equity hybrids, we seek to reflect the incremental risks associated with the issue in terms of payment timeliness and principal recovery compared to nondeferrable debt. We typically reflect these risks in our issue ratings on equity hybrids by assigning them ratings that are lower than those on nondeferrable debt.

We continually reassess our hybrid capital criteria as instrument structuring innovations and other market developments warrant. Please check RatingsDirect for subsequent criteria updates.

Working With Standard & Poor's On Hybrid Capital Matters

We formed our New Instruments Committee (NIC) in early 2006, primarily to centralize our criteria-setting with respect to hybrid capital-related matters. The NIC is comprised of senior analysts across all relevant sectors and regions. Analysts closely involved in our hybrid capital criteria development activities are listed in Table 1.

Table 1

Hybrid Capital Criteria Analysts				
Analyst	Location	Telephone	Email	Sector
Vincent Allilaire**	London	(44) 20-7176-3628	vincent_allilaire@standardandpoors.com	Corporates
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Table 1

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Curt Moulton*	New York	(1) 212-438-2064	curt_moulton@standardandpoors.com	(general)	
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*New Instruments Committee member. **New Instruments Committee adjunct member.

Anyone with questions about our hybrid capital criteria should feel free to contact any of the individuals listed. In addition, the NIC offers feedback to investment bankers and issuers who are developing new instrument structures. We provide a preliminary and generic assessment of the equity content, and the notching that would be applied in rating the issue, on a confidential basis. Such feedback is subject to our review of the final terms and conditions of the issue, if there is an actual transaction, as well as to consideration of issuer-specific factors.

To have a new structure assessed, investment bankers and issuers should contact any of the individuals listed. It facilitates the discussion if the instrument is described in the form of an indicative term sheet. The NIC seeks to provide feedback expeditiously. The NIC routinely meets twice per month, but additional meetings can generally be convened to address pending priority matters, as necessary. In the overwhelming majority of cases, we communicate our conclusions informally; however, we provide formal, written feedback in certain circumstances, as appropriate. If an issuer is proposing an issue of a structure for which close precedents already exist, it is most efficient to contact the primary analyst responsible for the issuer, or others on the coverage team. Members of the NIC will be involved, as necessary, in assisting with the review of the instrument terms and to ensure the consistent application of criteria.

If the issuer is contemplating financing strategies involving issuance of different hybrid capital instruments, and wants to have definitive formal feedback regarding the potential rating ramifications, this exercise lends itself to our Rating Evaluation Service. The issuer can obtain information about this service by contacting their respective Client Business Manager or the following regional contacts:

- North America: Terrence Streicher, VP-Rating Evaluation Service Product Manager; New York; (1) 212-438-7196; terrence_streicher@standardandpoors.com
- Europe, Middle East, Africa: Ian Byrne, Director, Commercial & Product Management; London; (44) 0 207 176 3633; ian_byrne@standardandpoors.com
- Asia-Pacific: Denis O'Sullivan, Vice President, Client Relationship Group Asia Pacific; Hong Kong; 852 25333522; denis_osullivan@standardandpoors.com

Equity Content: Guiding Principles

What constitutes equity in the first place? Traditional common stock--the paradigm equity instrument--sets the standard. But equity is not a monolithic concept; rather, it has several positive characteristics:

- Equity requires no ongoing payments that could lead to default;
- It has no maturity or repayment requirement, and is expected to remain as a permanent feature of the enterprise's capital structure; and
- It provides a cushion for creditors in case of bankruptcy.

Equity hybrids possess some--or all--of these characteristics to some degree. Yet, because equity has these several defining attributes, a specific security can have a mixed impact. Hybrid securities, by their very nature, can be equity-like in some respects and debt-like in others. Moreover, the specific features may provide the positive characteristic only to a limited extent.

In any event, the security's economic impact is most relevant; its nomenclature is a secondary consideration. A transaction labeled debt for accounting or tax purposes may still be viewed as equity for rating purposes, and vice versa.

In the case of regulated banks and insurance companies, aside from our own analytical views about the characteristics of a given hybrid capital instrument, we must also take account of the regulators' views. Indeed, this can be a key consideration. In many jurisdictions regulators have the authority and power to intervene in the operations of a bank or insurance company, and they determine whether to do so based, in part, on their own assessment of capital adequacy. Regulators' capital policies strongly influence bank hybrid capital issues' terms--and this is increasingly the case in insurers' issues. Not only will the structure of a hybrid instrument be influenced by regulatory treatment, but the redemption of hybrid capital instruments typically is also subject to regulatory review. Regulators can intervene to enforce the suspension or nonpayment of hybrid coupon payments, restrict the amount of hybrids that an entity can issue, and require any redeemed hybrid to be replaced with an instrument of equivalent equity content. Thus, as explained below, our analytical assessment of regulated issuers' hybrid capital instruments is typically anchored in the regulator treatment.

Equity Content: Ongoing Payments

A company generally pays dividends on its common stock only at its discretion: There is no fixed requirement to do so that could lead to default and bankruptcy if the common dividend were cut or eliminated.

In practice, though, once a company has established a record of paying a common dividend, it will be loath to reduce the payment, given management's likely concerns about capital markets perceptions. Common dividend reductions are seen as a signal that the company's prospects are clouded, and market perception can be a powerful consideration in management's decision making. As a consequence, some distressed companies continue paying their common dividends, even though they arguably have more pressing uses for the cash. In this way, the common dividend can act like a fixed charge, draining the company, over time, of funds needed to bolster operations. Yet, whatever the pressure to pay common dividends, the company always retains some discretion, whatever the pressure to pay common dividends.

Most types of hybrid capital instruments have a stated dividend or coupon rate, but the payment either may be deferred or forgone at the discretion of management or a regulator, or must be deferred or forgone with the breach of a predefined trigger, or both. We assume that management or a regulator would always have greater reluctance to pass on the hybrid payment than to reduce or eliminate the common dividend. This is the hybrid capital market's clear expectation, as reflected in issue pricing, and borne out by historical experience. Accordingly, this distinguishes hybrid capital issues from common equity, in terms of the benefit to the issuer.

The longer a company can defer or skip payments, the better. An open-ended ability to defer or skip payments until financial health is restored is optimal. As a practical matter, the ability to forgo payments for up to five years or so is most critical in helping to prevent a general default. If the company cannot restore financial health in five years, it probably never will.

In addition, the fewer restrictions imposed on the company's ability to defer or forgo payments, the better. For example, some issues include a "look-back" provision under which the company can only defer or forgo payments after some minimum period of time has elapsed since the last common dividend was paid. In other instances, there is a requirement—for example, under the corporate charter or the national corporate legal framework—that any dividend changes be approved at the annual shareholders' meeting. Or there may be other preconditions that must be satisfied, such as the breach of certain financial tests. With any such restrictions, the company's ability to react to worsening circumstances by deferring or forgoing payments can be considerably hampered, and so such features undermine equity content. (See section "Issue Features: Dividend Stoppers, Look-Backs, And Pushers.") (Note: It is typical for a hybrid capital issue to include a so-called "common dividend stopper"—a provision under which the company is prohibited from paying common dividends while it is deferring or forgoing hybrid issue payments. We generally view such a stipulation as a neutral factor from a credit perspective. On the one hand, eliminating both the common dividend and the hybrid payment together maximizes the overall cash conserved. On the other hand, the link between the two may increase the reluctance of the issuer to forgo paying on the hybrid. Thus, a common dividend stopper is not essential to our assessment of the equity content afforded the hybrid issue.)

In the case of hybrid capital issues with optional deferral provisions, we are generally indifferent to the choice between instruments with cumulative payments (which, when deferred, still accrue, and ultimately must be made up) and noncumulative payments (where there is no obligation to address missed payments). With noncumulative instruments, it may be easier for the issuer to recover after deferring, since there is no arrearage to be repaid. However, given the more severe consequences for investors, the company may be somewhat more reluctant to forgo payments on noncumulative instruments in the first place.

Naturally, any instrument feature that discourages the issuer from exercising the right to defer optionally is detrimental to equity content. This is one of the key aspects that we analyze when we assess hybrid capital securities' equity content. Such features include:

- Penalty rates. In the case of cumulative issues, if deferred payments accrue at a rate that is higher than the normal payment rate, we view this as clearly intended to discourage deferral.
- Alternative payment mechanisms (a.k.a., alternative coupon settlement mechanisms; see section "Issue Features: Alternative Payment Mechanisms/Alternative Coupon Settlement Mechanisms (APM/ACSM)"). In the case of some cumulative issues, the company must issue stock—common or preferred—once it has deferred for a certain period of time. If this requirement only becomes effective after five years of deferring, we don't view this as a significant negative. When management (or a regulator) is first weighing the decision to defer, this limitation is

unlikely to be a significant consideration. However, if the requirement becomes effective earlier—especially if it is only after one or two years—companies might well want to avoid such a requirement, and so be even more reluctant than usual to defer in the first place.

- **Nomenclature.** In some cases, instruments with virtually identical credit features can be variously defined as debt or preferred stock. Although the distinction may be only one of nomenclature, we believe the identification of a security as debt constrains the company's practical discretion to defer payments, given the greater "headline risk" that may be associated with deferring payments on the debt form of the security. However, this does not necessarily preclude the instrument being viewed as having significant equity content if there are other mitigating features.

Finally, various case-specific considerations can enter into the assessment of payment flexibility. Other things being equal, a company with heavy ongoing funding requirements—and hence a need to access the capital markets regularly—might be more reluctant than others to pass on making payments for fear of the capital markets' reaction. Such a company's regulator could well have the same reservations. Also, if the amount of cash that would be conserved is small relative to the company's near-term cash requirements, the company might rationally choose not to defer or forgo payments, since little would be gained from doing so.

By removing the discretionary element, mandatory trigger mechanisms can increase confidence that payments will be deferred or forgone when the issuer's circumstances make this desirable from the creditors' perspective. (Historically, income bonds—i.e., where interest payment is contingent on achieving a certain level of earnings—were designed with this in mind. However, to the extent that cash flow diverges from earnings measures, income bonds tend to be imperfect instruments.) The equity content of such instruments is significantly influenced by the trigger levels used to determine when payments are eliminated. For example, if the level of cash flow that triggers payment curtailment is relatively low, reducing the likelihood of deferral, that instrument does not support high ratings. Credit quality might already have deteriorated drastically before the trigger would be breached. Conversely, though, if the trigger level is set close to the expected performance level, and at a level where the company is still very strong, we would have to consider the headline risk that forced deferral might pose.

A different mandatory approach entails linking interest payments to the company's common dividend, creating a common equity-mimicking bond. (A number of international financial institutions issued such bonds in the late 1980s.) Of course, a company having an inordinate amount of dividend-linked issues outstanding could ultimately be reluctant to curtail its common dividend.

Equity Content: Permanence

Capital should be sufficiently permanent that it is available to preserve cash and absorb losses when needed. Obviously, retaining funds in perpetuity offers the company the greatest flexibility. Extremely long maturities are next best. Accordingly, 100-year bonds possess an equity feature in this respect (and only in this respect) until they get much nearer their maturity. (To illustrate the point, consider how much, or how little, the company would have to set aside today to defease or handle the eventual maturity.) However, in 100-year bonds, interest payments are not deferrable and cross-default provisions could lead to these bonds being accelerated.

Hybrid capital issues usually come with a maturity. Having a limited life is a clear shortcoming in terms of equity permanence. If the maturity happened to coincide with a period of stress for the issuer, the need to refinance could add to financial pressures. Even if we expect the issue to be refinanced successfully at maturity, the potential for

using debt in the refinancing would concern us.

As a practical matter, we view an issue with a remaining time to maturity of 20 years (15 years for 'BB' rated issuers and 10 years for 'B' rated issuers) as sufficient to support credit quality. However, even 20 years is a very long time for many issuers and investors. Different features have been introduced that further limit the likely life of the issue--and thereby constrain the extent of the equity content the issue affords.

Thus, the ability to call always gives reason for pause (see section "Issue Features: Call Provisions"). Will the issue remain outstanding beyond the call date? It is common for hybrid capital issues to be callable, either starting on a certain date and continuing for a defined period (often referred to as an "American-style" call) or on certain specified, discrete dates (i.e., "European-style" call). Calls exercisable after five years are the most common in certain markets, and we would question the rationale for an issuer including a call date sooner than five years after issuance. We have not placed much emphasis on call features as limiting equity content—that is, if we believe the issuer has good reasons for maintaining hybrid capital in its capital structure (e.g., to meet regulatory capital requirements, or because the issue is tax deductible and therefore is a cost-effective form of funding). Indeed, call provisions can even be beneficial from a credit perspective, because they afford the issuer the opportunity to refinance the issue at more favorable rates, market conditions permitting. Moreover, in many instances, the issuer could repurchase the issue on the open market or through a tender offer, even in the absence of a call provision.

Where an issue contains a call provision, the issuer has the option to redeem the issue, but no obligation to do so. Thus, in our assessment of equity content, we don't generally penalize instruments with call provisions, unless, in the case of unregulated issuers, the initial call date is less than five years after issuance—which heightens our skepticism about the issuer's intentions with respect to the issue. We may also be concerned when the issue is only callable on discrete dates followed by a long noncall period. Where an issuer is regulated and we believe the regulator will ensure that any refinancing would not be credit-harming, we do not penalize issues with call dates earlier than five years. (See section "Issue Features: Call Provisions.")

In recent years, more hybrid capital securities have included terms whereby the issuer has the right to call the instrument at par on the same future date that the coupon rate increases, or steps up, by a preset amount. Step-ups (and similar penalty-rate provisions) question the permanence of issues that incorporate them, and so undermine the equity content of a hybrid capital security (see section "Issue Features: Step-Ups, Resets, Remarketing"). The call and step-up are expressly designed to prompt issuers to retire the issue. Moreover, in certain circumstances, the issuer could incur significant reputational fallout if it did not call. Indeed, investors strongly rely on step-up provisions to incentivize a call. We view these types of hybrid capital instruments as a form of long-term capital if:

- The amount of the step-up is limited, such that if the issuer chose, for whatever reason, not to refinance the issue, it would not be burdened by onerous financing costs; and
- There is a high degree of assurance that if the issue were called, it would be replaced with another issue warranting an equal or higher degree of equity content.

We see no need for any replacement provision (legally enforceable or otherwise) if the issue does not have a step-up, even if the issuer has call rights. The issuer's option to retire hybrid capital issues is similar to its option to repurchase common equity. But, if a hybrid issue has a significant step-up or a discrete call followed by five or more years during which it is not callable, we presume the issue will be called—either at the time of the step-up/discrete call or before it. The presumed temporary nature of the issue begs the question of how it will be replaced. Legally

binding replacement language reinforces the permanency of the capital raised by rendering replacement highly likely, particularly when the issuer would need the capital to maintain its creditworthiness. In our view, mere expression of intent regarding replacement is insufficient when there is a workable alternative that more strongly enforces the permanence of the equity. To be sure, legally enforceable replacement capital covenants (RCCs) can pose their own problems--especially those that are complex or unduly restrict a company's future choices (see section "Issue Features: Replacement Capital Covenants"). But we view RCCs as the lesser of two evils. RCCs offset the clear motivation to call and retire the hybrid security created by the step-up, and reestablish sufficient permanence to allow the security "intermediate" or "high" equity content under Standard & Poor's methodology. We believe that legally binding RCCs can be crafted to introduce flexibility and thus render them more acceptable to issuers.

At any time, a company can choose either to repurchase equity or to issue additional shares. However, some securities are more prone to being temporary than others. Our analysis tries to be pragmatic, looking for insights as to what may ultimately occur. For example, auction-rate or remarketed preferred stock is designed for easy redemption. Even though the terms of this type of preferred provide for its being perpetual, failed auctions or lowered ratings typically prompt the issuer to repurchase the shares. (They are sold as commercial paper equivalents, which heightens the potential for failed auctions if credit quality ever falls to 'A-3'--or even 'A-2'--levels, or if market conditions deteriorate. Although the company has no legal obligation to repurchase the paper--i.e., the last holder could be left with this "perpetual" security--the issuer sometimes bows to market pressures and chooses to repurchase the preferred. Accordingly, such frequently remarketed preferreds are treated as debt.)

Another important consideration is the issuer's tax-paying posture. It may be difficult for an issuer that is currently not paying taxes to assert that it will continue to finance with nontax-deductible preferred stock once it becomes a taxpayer, and that it can lower its capital cost by replacing the preferred with debt.

Other clues can come from who invests in the issue (e.g., money market, as opposed to long-term fixed-income investors) and the mode of financing that is typical of the company's peer group. For example, U.S. utilities traditionally finance with preferred stock, and industry regulators are comfortable with it; therefore, the usual concern that limited-life preferred stock will be refinanced with debt is less of an issue for utilities.

There is always the risk that tax-deductible instruments' favorable tax status could be overturned by tax authorities, or through legislative changes. If we had particular concerns about the continuation of favorable tax treatment, and loss of tax deductibility would make the economics unfavorable for the issuer, we would have significant reservations about viewing the instrument as permanent, unless we had reason to believe that the issue would be refinanced in another equity-like form.

In assessing any issuance's degree of permanence, management intent is always an important consideration. Through discussion of financial policy with senior management, we seek insight into potential future retirement and replacement of hybrids. We also take into account a company's track record in this regard. We always must be aware that management intent can become diluted over time--for example, as there are changes in management.

Equity Credit: Subordination/Cushion For Creditors In The Event Of Default

What happens in bankruptcy also pertains to the avoidance of bankruptcy and default, albeit indirectly. That is, companies' access to debt capital depends on providers feeling secure about the ultimate recovery of their loans in the event of a default. Debt-holders' claims have priority in bankruptcy, while equity holders are relegated to a

residual claim on the assets. The protective cushion created by such equity subordination can facilitate the company's access to capital, helping enable it to stave off a default in the first place. (In the case of some European bank, insurance, and corporate issues, mechanisms exist that can result in loss absorption outside of bankruptcy or reorganization by reducing the principal owed to investors—for example, following the recording of a net loss, when directed by the regulator.)

Regulators virtually always insist that instruments be subordinated to qualify for capital treatment. Apart from this consideration, in our framework subordination typically is a secondary factor compared with other beneficial aspects of equity, although lack of subordination would always weigh somewhat on equity content. Thus, if an instrument is senior, but ongoing payments are deferrable and it has a long-dated maturity, we could well view it as having meaningful equity content. On the other hand, if an instrument is subordinated, but lacks the other equity-like traits, it would be viewed as predominantly debt-like.

The distinction between subordination and deep subordination generally is not significant in our analysis, although deep subordination incrementally is somewhat more supportive of credit quality. However, many U.S. securities--to meet IRS guidelines for tax deductibility--may be termed subordinated while providing *pari passu* status to trade creditors. This is a shortcoming--albeit not one that we view as significant.

Equity Content Categories

To facilitate our analysis, we classify qualifying hybrid capital issues into three categories, based on our assessment of their equity content: "high," "intermediate," and "minimal." In our financial institutions practice (excluding insurance), where matters pertaining to quality of capital assume particular importance, we further distinguish between "intermediate-strong" and "intermediate-adequate." As discussed more fully in the section "Applying Hybrid Capital Equity Content Assessment In Credit Analysis: Financial Institutions Methodology (Excluding Insurance)," for regulated U.S. financial institutions, we only give equity credit to issues that qualify for Tier 1 regulatory capital treatment.

"High" equity content

"High" equity content hybrids have very strong equity-like characteristics. They include features that help protect credit quality near the current level, and if they substitute for plain vanilla debt, they improve the overall quality of the issuer's capitalization. Investors in "high" issues typically bear equity-like risk, and we would expect the value of such instruments to have a high correlation with the value of equity.

We have identified three potential types of "high" equity content instruments:

- The issue converts mandatorily to common equity within a fairly short time horizon;
- The issue has a coupon or dividend that varies directly with changes in the common stock dividend or with earnings or cash flow; or
- The issue is mandatorily deferrable upon the breach of financial triggers or rating triggers that are set close to the expected performance level/existing rating level.

"High" equity content due to mandatory convertibility.

"High" mandatorily convertible issues provide for the deferred, but mandatory, issuance of common stock, while raising proceeds immediately. (See section "Issue Features: Conversion Into Common Stock.") There are several varieties of this structure, including instruments that convert directly into common stock and units comprised of a

contract providing for the forward sale of common stock, coupled with an initial security with a maturity or call date that may or may not match the common stock issuance date under the forward contract. In either case, the instrument initially takes the form either of preferred stock, with optional deferability of payments, or debt, with fixed payments. (Naturally, we view the former form somewhat more favorably from a credit perspective. In the bank sector, regulators require that the initial instrument qualify as Tier 1 capital.)

To meet our standard for "high" equity content (indeed, to be viewed as having any equity content), investment-grade issuers must issue common stock within no more than approximately three years (issuers with issuer credit ratings in the 'BB' category must issue within two years; issuers with issuer credit ratings in the 'B' category must issue within one year).

Also, the security must include a conversion price floor, and this floor must be no less than the common share price at the time of initial issuance. For example, if the stock price is \$50 per share when the convert is issued (a \$1,000 note is equivalent to 20 shares), at conversion the note may not be convertible into more than 20 shares, regardless of the then-current stock price. Importantly, for us to believe that such an issue warrants "high" equity content, we must be convinced that the company will be sufficiently satisfied with the outcome of common stock issuance that it will not reverse the result with share repurchases. While necessarily arbitrary, the maximum three-year time frame and presence of a floor price are essential, in our view, to warrant equity content. We believe management's assurances today about their willingness to issue common stock in the future inevitably have little credibility beyond the three-year time period. Moreover, while it's reasonable that a company would want to retain some upside in ultimately being able to issue fewer common shares if the share price appreciates, if the conversion ratio were fully variable or required the issuance of shares at a price significantly discounted compared to the Day 1 share price (like the RHINOs issued a number of years ago), the dilution would increase as the company's share price declined, testing management's resolve at the very time when enhancement of the capital base might be most needed. (Although we generally view longer dated mandatorily convertible issues as debt-like due to the long time to conversion, these may be reclassified as "high" when the remaining period to mandatory conversion falls to within three years or less, depending on our then-understanding of management's intentions.)

In the case of mandatorily convertible instruments, where the interim issue converts directly into common stock, or where, in the unit version, the initial issue matures at the same time as the receipt of the common stock proceeds, no other security remains outstanding once the common stock issuance has occurred. In contrast, in the mismatched version of the unit structure, the initial security survives the common stock issuance, and the common stock issuance results in the company raising a second set of proceeds. Although the company will then possess cash that could be used to repay debt, we would not automatically net such cash against debt; rather, we would account for the debt and equity components separately at the outset. However, the issuer can often make the case that it will actually use the second set of proceeds (that is, the equity proceeds) to pay down debt immediately and permanently. Such debt reduction could apply to a debt maturity that coincides with the equity issuance--or to short-term debt (such as commercial paper), assuming the company carries a sufficient permanent layer of such debt. In these instances, we adopt a "net" approach, which leaves the company with only the common equity proceeds. (Note: In corporates [as opposed to financial institutions] where equity content leads to an adjustment of interest expense in coverage ratios, the treatment of ongoing payments in the initial preconversion period are treated as if they were common dividends.) In any event, the company can receive recognition for the deferred equity issuance in leverage ratios, even if we view the interim issue as debt-like.

"High" equity content through linkage to common shares.

In theory, an instrument could also achieve the "high" designation by mimicking some of the characteristics of common stock--by being perpetual (or at least with a remaining life of 20 years or more) and subordinated (albeit senior to common stock), and having interest or dividend payments that are tied directly to the common stock dividend. It is acceptable for "high" equity content if the distribution is tied to the common dividend only within a certain range, with some small portion of the payment being fixed. (We would not be concerned about a ceiling on the payout.) Of course, if such an issue were sufficiently material, it could become a significant disincentive for the company to cut its common dividend. In practice, though, there seems to have been very little issuer interest in such an approach, or in issues where the payment is tied to some other indicator of financial health, such as earnings or cash flow.

"High" equity content due to mandatory deferrability.

Finally, the equity content we attribute to hybrid capital issues that rely on optional deferral is constrained by our assumption that managements (and regulators, where relevant) will always be loathe to utilize the option to defer or forgo payments--perhaps until it is too late for the deferral to make any difference to the company. By removing the discretionary aspect, issues with mandatory deferral triggers can potentially achieve "high" equity content (see section "Issue Features: Mandatory Deferral"). Mandatorily deferrable securities that would warrant "high" equity content recognition would entail the following features.

High thresholds. The mere existence of a mandatory deferral provision is meaningless. Everything depends on the thresholds that define the deferral trigger. To illustrate: If the trigger for nonpayment is 10 years of losing money, that provision is virtually worthless. The company would probably have defaulted prior to the deferral provision going into effect. To be included in the "high" equity category, an instrument's trigger must go into effect at a level relatively close to the current credit profile of the issuer. One approach is to use a rating trigger. To qualify for "high" equity content, the trigger must be set at a level within three notches of the initial rating level. A threshold defined in terms of crossing over to noninvestment grade does not suffice--unless, of course, the issuer credit rating happens to be within three notches of that level. A variety of financial benchmarks can also serve as a proxy for the appropriate threshold level. These always need to be crafted to fit the specific issuer's context. In any event, we need to be mindful that a single ratio cannot entirely be relied upon to capture all of the business and financial changes the credit may have undergone by the time the trigger activates. As noted below, we do not view this type of issue as warranting "high" equity content if the issuer is confidence-sensitive, or if the trigger could be breached when the issuer is still investment grade because risks outweigh the intended benefits.

No loopholes. For example, some deals stipulate that the mandatory deferral must be simultaneous with or only occur following the cessation of common dividends (a look-back period). As long as the company chooses to pay even a paltry dividend, the security continues to pay. Obviously, such an instrument is "mandatory" in name only.

No back-door payment mechanisms. Many proposed high-equity structures provide for requiring payment or allowing payment in common stock while mandatory deferral is in effect, under the terms of so-called alternative payment mechanisms (APM; see section "Issue Features: Alternative Payment Mechanisms/Alternative Coupon-Settlement Mechanisms (APM/ACSM)"). While appealing on the surface, we believe such provisions could defeat the purpose of mandatory deferral. The likelihood is that the company will feel pressured--if not actually obliged--to make the payment, and then turn around and repurchase the stock it issued (unless it were otherwise inclined to issue common stock for whatever reason). Ironically, the higher the threshold of the instrument, the greater the likelihood the company would pay and repurchase. To meet our requirements for "high" equity content,

APMs are acceptable only if they take effect five years or more after the initial breach of the trigger.

Permanence. Excluding mandatorily convertible issues, to qualify for "high" or "intermediate" equity content, there must be assurance that the issue—or a successor issue warranting a similar or higher degree of equity content—will be a component of the issuer's capital base for a long time. We apply a common standard regarding remaining time to maturity to all investment-grade financial institutions (including insurance companies) and corporates, in all regions. Under this standard, we require a hybrid capital issue to have a remaining term of at least 20 years to receive our "intermediate" or "high" equity content designation. (See section "Issue Features: Maturities/Scheduled Maturities.") The ability to call can give reason for pause, since it puts into question whether the issue will remain outstanding beyond the initial call date. However, where an issue contains a call provision, the issuer has the option to redeem the issue, but no obligation to do so.

As long as we believe the issuer intends either to keep the issue outstanding or refinance it with the proceeds of another issue warranting comparable equity content, we do not view the call date as an effective maturity (see section "Issue Features: Call Provisions"). In recent years, many hybrid capital issues have coupled calls with mechanisms clearly designed to penalize the issuer if the call is not exercised, such as step-ups. While such provisions can enable the issuer to benefit from lower funding costs, since investors assume the issue will be called, they can fly in the face of any notion of permanence, absent mitigants, such as legally binding replacement capital covenants. We have developed guidelines for assessing such provisions (see sections "Issue Features: Call Provisions," "Issue Features: Step-Ups, Resets, Remarketing," and "Issue Features: Replacement Capital Covenants").

Subordination. Subordination (i.e., subordination to all conventional debt) is necessary to meet the criteria for the "high" or "intermediate" equity content category, when based on tight mandatory deferral. The original premise of modern, tax-deductible preferreds was that they would provide deep subordination. However, in reaction to some tax authorities' apparent sensitivity to full subordination, this feature was watered down. Virtually all U.S. trust-preferred securities, for example, are subordinated to indebtedness—but pari passu with trade creditors. While the lack of full subordination weakens the equity content for all such securities, we have not automatically excluded those securities from the "high" or "intermediate" equity content category.

With mandatorily deferrable issues, investors are taking substantial risk—well beyond the corporate default risk—and this risk is reflected in relatively low ratings on the securities themselves (as discussed in "Rating The Issue (Notching)" below).

The benefits of mandatorily deferrable issues could be offset by exposing the company to negative market responses, in the event of a looming or actual deferral. This is more pronounced in times of market turbulence, when "headlines" can dramatically affect financial institutions' funding flexibility, whatever the state of credit fundamentals otherwise. We believe that for companies that are confidence-sensitive—notably, financial institutions, including insurance companies—deferrals driven by mandatory triggers could result in more harm than the benefit realized by reduction in debt service obligations. Accordingly, we do not consider hybrids with tight mandatory triggers as eligible for "high" equity content for confidence-sensitive issuers.

More broadly, even for issuers in less confidence-sensitive sectors, if the triggers halt payment while the company is still far from being incapable of making the payments, the benefits of reduced debt service could turn out to be small relative to the potential headline risk and investor reaction—especially in cases where the trigger threshold is at a level where the company is investment grade. The company could pay a price in terms of its financial flexibility.

(Alternatively, the company would be motivated to avoid the deferral by retiring the issue.) These risks associated with mandatory deferrals are recognized in qualitative aspects of our analysis, no matter how the security is treated for ratio-calculation purposes.

Specific features of the security could mitigate or heighten the risk--and recent proposals for securities structured to achieve high equity content have included features that are pertinent to the issues we have raised in this section. In this regard, the trigger must not be opaque or overly complex. It can be defined by a ratings downgrade or breach of various financial benchmarks that serve as a proxy for credit quality. Any metrics used in defining the triggers need to be straightforward and highly transparent. But they also must be customized for the specific context of the issuer. Complexity may be hard to avoid, especially given the interplay of business risk with financial indicators of credit quality. (This can be especially challenging in sectors such as regulated utilities, where the business risk profile plays an outside role.)

Some structures shift deferral risk from the investors by introducing a financial counterparty to stand in for the company at the point of deferral. By effectively dealing with the direct risk to investors, market reaction might arguably be muted. Still, the need for third-party intervention could produce similar negative responses. Moreover, the relationship of such a counterparty vis-à-vis the issuer could give it special clout to avoid or undo the cash savings of any deferral.

"Intermediate" equity content

This category encompasses a wide range of instrument types and accounts for the overwhelming majority of hybrid issues. "Intermediate" equity content hybrids have substantial equity-like characteristics. These include features that help protect credit quality in the event of financial distress. If such hybrids substitute for plain vanilla debt, they improve the overall quality of the issuer's capitalization. Nevertheless, an "intermediate" equity content hybrid is also debt-like in some respects, typically due to the relatively fixed nature of the dividend/interest on an ongoing basis, given investor expectations. Noncumulative perpetual preferred stock (noncumulative in the sense that where the company passes on a dividend, there is no obligation to eventually make this up) is the most equity-like of the instruments we view as warranting "intermediate" equity content. As the name suggests, such an issue has no maturity date or repayment obligation, so the equity benefit does not diminish over time. It is subordinated to all debt and other liabilities of the company. And the company can choose not to declare dividends at its discretion, with no limitation on the length of time it can do so--except that it cannot pay common dividends while it is deferring on the preferred dividend--and no obligation to make up missed payments. (In some cases, after a certain period of time, such as six quarters, during which dividends are not declared, preferred shareholders have the right to appoint a small number of directors to the company's board of directors. However, while this board representation is enough to pose a nuisance to the company, the preferred stockholders still have only limited ability to pressure the company for compensation.)

Yet, we don't generally view noncumulative preferred stock as warranting more equity content, given our assumption that managements are loath to exercise the right to defer payments (except in the case of regulated companies where this affects the regulatory capital treatment). Investors expect to be paid, and, short of severe financial distress, companies will be reluctant to disappoint investors, for fear of the capital markets' reaction. (In the case of regulated issuers, the regulator, in theory, could be more proactive about insisting that payments be forgone. Historical evidence is lacking, however, that this has been the case.) While, on balance, we believe noncumulative distributions are more supportive of credit quality than are cumulative payments, we recognize that the greater potential harm to investors--since missed payments are never made up--could make companies even

more reluctant than otherwise to exercise the right not to pay. Moreover, in cases where dividends on noncumulative perpetual preferred are not tax deductible (as in the U.S., but not in the U.K.), the relatively high after-tax cost of the issue could motivate the company to refinance it under certain circumstances—belying the nominal perpetual life.

(Note: We also don't make a distinction in our analytical treatment of cumulative issues between those where deferred payments accrue interest and those where it doesn't. The latter are more equity like in that the payments the issuer ultimately must make up are smaller. However, the difference is unlikely to affect the issuer's financial profile meaningfully.)

Since 1993, U.S. companies have been issuing what we term "conventional" trust-preferred stock. This term is used to refer to a class of instruments that take different legal forms—being issued via a trust, via a partnership, or directly by the company. Trust-preferred structures can differ in other regions, but in the U.S., the common features from a credit perspective are as follows:

- A term of 30-40 years;
- Deep subordination, although senior to noncumulative perpetual preferred stock in certain cases; and
- Optional deferral of dividends for up to five years, at which point any arrearage has to be paid, or a legal default results.

Conventional trust-preferred stock, as defined above, is somewhat less equity-like than is noncumulative preferred stock, but nonetheless still warrants "intermediate" equity content under our criteria. Although a term of 30-40 years is less supportive of credit quality than a perpetual term, 30-40 years is nonetheless a long time in the life of any issuer, generally being longer term than the overwhelming majority of its debt obligations. We don't believe different degrees of deep subordination are significant from creditors' perspective. And while the longer the company can defer or forgo payments the better, five years should be long enough for most companies that fall on hard times to effect a turnaround—if the company is going to survive at all.

Since 2005, U.S. companies have been issuing what we term "enhanced" trust-preferred stock, typically having the following features:

- A term of 40 to 60 years;
- Deep subordination—in some cases with the issue being junior to conventional trust-preferred issues; and
- Optional deferral of dividends for up to 10 years, and, in some cases, no legal default even if there is continuing nonpayment after 10 years.

The longer the ability to defer or forgo payments, the better, from the perspective of equity content. To highlight this point, as we apply our framework to financial institutions (excluding insurance companies), we distinguish between instruments where deferral is limited to five years, which instruments potentially receive our "intermediate-adequate" equity content designation; and instruments where deferral or nonpayment can exceed five years, which potentially receive our "intermediate-strong" equity content designation (as is the case with most trust-preferred instruments issued in Europe). We don't make such a distinction in other sectors.

Just as in the case of "high" equity content instruments, as discussed above, an instrument must have a remaining life of 20 years or more to continue receiving the "intermediate-strong" or "intermediate-adequate" equity content designation. Myriad "bells and whistles" are found in conjunction with the basic structures described here. Some of

these can qualify the extent to which the instrument can be viewed as permanent or semipermanent.

Many issues completed in recent years have included call provisions that are combined with step-ups or other repricing mechanisms that are clearly designed to motivate the issuer to call the issue—even if it is not optimal for the issuer to do so at that point, from a credit perspective. Where the call date is at least five years from the initial issuance date, the increase in cost is moderate, and there are adequate offsetting provisions (e.g., a legally binding replacement capital covenant), the instrument can nonetheless qualify for "intermediate" equity content under the guidelines we have developed (see sections, "Issue Features: Step-Ups, Resets, Remarketing," and "Issue Features: Replacement Capital Covenants").

In addition, many recently completed issues have included provisions designed to limit the extent to which investors bear the risk of deferral. Conventional U.S. trust preferred has "unfettered deferrability," by which we mean that the company can optionally defer for the full five-year period without being required to undertake any issuance of common stock or additional hybrid capital. In some other cases, APMs are included that require the issuer, under certain circumstances, to undertake the issuance of common stock or additional hybrid capital, and utilize the proceeds to make the dividend/interest payment that it would otherwise defer.

We believe such a requirement--becoming effective at a point when the issuer's common stock price quite possibly would be depressed and its ability to issue new preferred stock on acceptable terms dubious--undermines the value of optional deferrability, since it could lead the issuer to be even more reluctant to exercise the deferral option than would otherwise be the case. We have developed guidelines for determining when such provisions are still consistent with "intermediate" equity content (see section "Issue Features: Alternative Payment Mechanisms/Alternative Coupon Settlement Mechanisms (APM/ACSM)").

Some issues seek to strengthen equity content through the use of mandatory triggers by decreasing reliance on management's discretion (see section "Issue Features: Mandatory Deferral"). However, if the triggers are set at a level so remote that the company, at the point the triggers were breached, would likely be contemplating optional deferral anyway, they may add little to the optional deferral provision alone. In some cases, mandatory triggers are coupled with APMs, as discussed above. Unlike with "high" equity content instruments, we believe it is acceptable in the case of "intermediate" issues if the APM becomes effective immediately upon the breach of the trigger or after some fixed time short of five years. However, where this is the case, we believe that it is necessary for there to be restrictions on the company's ability to repurchase any securities issued under the APM, or the objective of cash conservation could be thwarted.

"Minimal" equity content

The "minimal" category includes some instruments with significant equity attribute(s), but which, as a whole, fall short of our standards for "intermediate." This category includes, for the most part, either subordinated issues with deferrable payments, but where there are fewer than 20 years remaining until the maturity, or long-lived subordinated issues with deferrable payments, but where the ability to defer is limited to fewer than five years or otherwise restricted. One example of the latter is certain Tier 2 or Tier 3 subordinated issues of banks on which the interest payments are not subject to optional deferral, but where the payments can be restricted by a relatively loose earnings test. Another example would be corporate issues that have all the main features of conventional trust preferred, except that they carry debt nomenclature—which we believe could cause management to be even more reluctant than usual to exercise the right to defer payments, given the added headline risk of not paying on a debt instrument. (Such instruments can achieve "intermediate" equity content when in the form of enhanced trust

preferred, given the offsets of the extended deferral feature and longer term.)

While, as discussed below, instruments with "minimal" equity content are treated as debt for ratio calculation purposes, that isn't to say that we disregard their equity-like characteristics in our analysis. Rather, we take account of them qualitatively. Given the varied attributes of any hybrid capital instrument--however categorized--financial ratios, at best, tell only part of the story.

Instruments structured as hybrid capital issues that fail to meet our standards for "high" or "intermediate" equity content do not necessarily warrant even the "minimal" equity content designation, in our view. Some are predominantly debt-like, and so are viewed as such. Examples include:

- Subordinated debt, where there is no deferability of payments. Here, we believe the inflexibility of the ongoing payments far outweighs the equity-like aspects.
- Very long-dated or perpetual senior debt, where there is no deferability of payments. Again, we believe the inflexibility of the payments more than offsets the equity-like aspects.
- Auction-rate preferred stock. Although nominally perpetual and subordinated, and having dividends that are deferrable, this instrument has a dividend rate that is reset through an auction process at very short-term intervals. Given a failed auction, the issuer is likely to come under intense pressure from investors to retire the issue.
- Mandatorily convertible issues where conversion into common occurs more than three years from the current time, or where there could be greater share dilution than permitted under our guidelines. In such cases, we would be concerned that a repurchase of the shares would follow the share issuance, and that the risk of this occurring could be greater the more depressed the issuer's share price.
- Instruments--where adequate equity-like features are otherwise lacking--that can convert into common stock at the option of the holder, and where the conversion option becomes attractive to investors only when there is share price appreciation (see section "Issue Features: Conversion Into Common Stock And Share Settlement").
- Certain instruments that could convert into common stock--mandatorily or at the option of investors--but where the issuer then has the alternative of redeeming the issue for cash.

Applying Hybrid Capital Equity Content Assessment In Credit Analysis

Different attributes of equity hybrids are relevant to different dimensions of our analytical methodology. The aspect of ongoing payments is considered in fixed-charge coverage and cash-flow adequacy; equity cushion is considered in leverage, capital adequacy, and asset protection; the need to refinance upon maturity is considered in liquidity; and the potential for conversion is considered in financial policy. The before- and after-tax cost of paying for the funds also is a component of both earnings and cash flow analysis.

In our analytical methodology, we take account qualitatively of a hybrid capital issue's varied effects on the issuer's credit profile. We have also developed techniques for factoring in hybrid capital in our calculation of certain financial ratios--knowing, though, that any such adjusted ratios represent a simplified view, and certainly do not tell the whole story.

In assessing hybrid capital issues' equity content, we use a common framework across our Corporate and Financial Services practices and across regions. In applying our conclusions, though, there are significant differences, reflecting the different nature of the companies and in our rating methodologies among sectors.

In our analysis of corporates, we have found that among all the possible ways to represent "intermediate" issues in financial ratios, the most effective is to split hybrid-related amounts 50%-50% between debt and equity.

Compared to the norm for corporates, most types of financial institutions (aside from insurance companies) are highly leveraged and have heavy funding appetites. In our analysis, the quality of capital is an important consideration. In considering regulated financial institutions (including insurance companies), we must pay particular attention to the matter of capital adequacy relative to regulatory capital requirements. In turn, the hybrid methodology does not follow the "partial credit" approach used for corporates; rather, for capitalization ratio calculation purposes, it grants full equity content within certain threshold limits, which are set depending on the degree of equity content.

Applying Hybrid Capital Equity Content Assessment In Credit Analysis: Corporate Methodology

Under our corporate methodology:

- Hybrids with "minimal" equity content are treated entirely as debt for ratio purposes;
- Amounts relating to "intermediate" category hybrids are split into 50% debt and 50% equity; and
- Hybrids with "high" equity content are treated entirely as equity for calculating ratios.

This approach is followed in our analysis of capital structure, as well as of cash flows and fixed-charge coverage. That is, for "minimal" equity content instruments, all related dividend or interest payments (however defined legally) are treated as a fixed charge; for "intermediate" equity content instruments, 50% of the related payment is treated as a fixed charge and 50% as the equivalent of a common dividend; and for "high" equity content instruments, all related payments are treated as if they were the equivalent of a common dividend—i.e., they are not included in fixed charges. (See also "Standard & Poor's Encyclopedia of Analytical Adjustments for Corporate Entities," published July 9, 2007, on RatingsDirect.)

As discussed above, in assessing a hybrid capital instrument's equity content, we consider the financial reporting treatment of the issue, since this can influence management's actions and the market's perception. However, in performing our ratio calculations, we reallocate as necessary between debt and equity, and between interest expense and dividends, in accordance with our analytical methodology, and our treatment is not driven by the accounting treatment.

We know our approach to calculating ratios is a simplified one, inevitably leading to some distortions. So, for example, as discussed above, we don't view "minimal" equity content issues as fully debt-like, nor do we view "high" equity content issues as the exact equivalent of common stock. And, for intermediate issues, there are cases where the 50%/50% allocation will skew ratios in a positive or negative direction (depending on the initial financial profile of the issuer and the use of proceeds), where our overall analytical interpretation of the hybrid issuance would be the opposite. Moreover, in the case of "intermediate" issues, the company will generally either pay the stipulated amount or defer it; it is rare for there to be a partial payment.

These drawbacks speak to the limited value of financial ratios where hybrid capital issues are concerned. These instruments represent a bundling together of different features, which have a varied effect on the issuer's credit profile. We haven't devised a means of calculating financial ratios that better captures such subtleties.

Prior to mid-2006, for hybrids with intermediate equity content, we computed financial ratios both ways—viewing them alternatively as debt and as equity, i.e., we calculated two sets of coverage ratios—to display deferrable ongoing payments entirely as ordinary interest and alternatively as an equity dividend. Similarly, two sets of balance-sheet ratios were calculated for the principal amount of the hybrid instruments, displaying those amounts entirely as debt and entirely as equity. For hybrids in the middle category, analytical truth lies somewhere between the two, and we sought to interpolate between the two sets of ratios to arrive at the most meaningful depiction of an issuer's financial profile. However, this methodology also had drawbacks, including the challenges for issuers in appreciating the potential impact on our view of their financial profile. Therefore—notwithstanding the issues mentioned above—we decided to calculate ratios with the amounts relating to intermediate category hybrids split 50%-50%. This is the set of ratios we now emphasize as the basic adjusted measures, and these are the ratios we publish in our reports. We believe this approach has greater transparency and ease of comparability—thereby outweighing the negatives. We continue to encourage analysts to view hybrids from all perspectives.

Under our corporate methodology, there is no hard-and-fast limit to the amount of hybrid capital for which we recognize equity content. Nonetheless, without drawing any bright lines, we would, indeed, be sensitive at a certain point. That is not because the character of the security changes when a lot of it is issued. Rather, beyond a certain point, a company's nonstandard, complex, or over-engineered balance sheet begins to put its financial policies in a negative light. In turn, this could lead to market pressures to restructure or normalize company finances. This concern would be compounded to the extent that a company also uses various off-balance-sheet financing vehicles, derivatives, and long-term contracts, and/or other techniques that contribute to an overall opaque financing structure. The perception of financial aggressiveness—by us or by the investment community—would certainly overshadow any theoretical benefit from the equity content that might be afforded to hybrid securities. It helps to focus on measures that would indicate little or no concern. In simple terms, there should be no problem with issuing conventional hybrids in an aggregate amount up to 15% of capitalization. (Capitalization is defined as debt + hybrids + book equity, adjusted for goodwill and also making all our other standard adjustments.)

For corporates and financial institutions (excluding insurance companies), ratio calculations incorporate capital only after it is issued—or its issuance is mandatory within a relatively short period. Even though a company has contracted for the right to sell equity at its discretion and even has fixed a price, we do not include such contingent capital in advance. This treatment applies whether the contingent capital is provided by a financial counterparty or structured vehicle, whether prefunded or not.

That said, contracting for contingent capital can be very valuable as a credit support in specific situations. For example, a company might find its credit rating under pressure because of a potential acquisition or expansion; and management's stated intention to issue equity to finance such activity may not be entirely convincing. Arranging contingent equity capital in advance could be just what is needed to allay any concerns regarding a credit-harming outcome. The company would not want to issue equity prior to the transaction materializing. But locking in the availability and cost on a contingent basis makes sense as an "insurance policy." In the insurance sector, given the "lumpiness" of potential losses, we give formal recognition in capital ratios to certain contingent capital structures (see section "Applying Hybrid Capital Equity Content Assessment In Credit Analysis: Insurance Methodology").

Corporate methodology: Corporates' operating subsidiaries issuing equity hybrids

Many corporates structure their operating units as distinct legal entities, owned, controlled, and consolidated by the parent company. (This is especially the case in the utility business, where the operating subsidiaries are regulated entities. It is also the case for financial institutions [including insurance companies], but this note relates only to

corporate issuers.) If such operating subsidiaries issue equity hybrids, the rating benefit extends to the parent company and the larger consolidated entity--inasmuch as our analysis focuses on the consolidated economic entity.

Issuance at the subsidiary level raises some questions regarding how the equity aspects help parent company creditors. In particular, the lack of subordination from the perspective of the parent's creditors and the potential for trapping funds at the subsidiary are two concerns that differentiate subsidiary issuance from parent issuance. However, we believe the equity content for the parent is generally deserved, as explained below.

A critical element of equity is subordination--and equity hybrids feature deep subordination (with the occasional exception of trade payables). The significance of subordination is twofold. It creates a cushion to absorb losses prior to bankruptcy, which leads to higher recovery (loss given default) on senior issues. In turn, the better recovery prospects for senior issues allow the company greater access to (senior) capital, enabling it to stave off a default in the first place. It is precisely this latter consideration that is important for the corporate credit rating.

In the case of subsidiary issuance, the subordination pertains to other claims against that subsidiary--but the hybrid's claim actually is senior to claims of parent company creditors. This priority of claims is referred to as structural subordination (of parent company creditor claims, even senior debt claims).

Nonetheless, equity issued by a subsidiary enhances capital access by reassuring potential debt providers to the subsidiary itself. As long as the subsidiary is positioned to raise additional funds--and it can direct those funds to its parent or affiliates--the default risk for the entire consolidated entity, including the parent, is lower. (As far as recovery prospects, parent company debt issues are indeed disadvantaged by adding to operating company claims. Our recovery ratings and notching of parent issue ratings reflect such priority claims.)

As noted, we normally assume that parents and subsidiaries are free to direct cash at will throughout the consolidated group. (Indeed, in cases where this is effectively restricted--for example, by regulators or covenants--we do not apply the consolidated rating methodology.) Thus, the ability to defer payments on the equity hybrid is beneficial, not just for the immediate subsidiary that issued the hybrid, but also for the group as a whole, since the cash conserved can be directed to affiliates as needed.

There is a concern, however, that cash conserved by the subsidiary from dividend deferral may not be available to its affiliates by virtue of the typical dividend-stopper provisions in the hybrid security. These provisions force the cessation of common dividends as long as the hybrid periodic payments are being deferred. If the dividend stopper pertains to dividend payments by the subsidiary to its parent, the cash conserved may be trapped at the subsidiary, limiting the equity benefit associated with the hybrid.

There are, however, mitigating considerations regarding the dividend stopper.

- There is no requirement that a dividend stopper should apply to intercompany dividends. Some utilities have issued subsidiary securities that restrict payment of dividends by the parent on parent common stock; the subsidiary is free to pay dividends to the parent. (The linkage to parent company dividends adds a disincentive to defer. However, this consideration applies broadly to equity hybrids issued by the parent company. Accordingly, the issuance via a subsidiary is no more problematic than if the parent were the issuer.)
- There usually are ways other than common dividends to transfer cash intercompany, including, for example, loans and advances. Moreover, the dividend-stopper clauses of some utility hybrids have actually spelled out and permitted the upstreaming of cash payments to the parent for specific operating needs. (Of course, if there are

constraints in individual situations--such as tax-related issues--our analysis will take the specific fact pattern into account.)

- The scenarios under which hybrid payments are deferred could well involve stress at the issuing subsidiary itself. (Indeed, the more significant the role of a particular operating subsidiary relative to its group, the more likely that the group's distress emanates from that operating subsidiary.) In that case, the cash conserved directly assists the subsidiary in meeting its various obligations. Indirectly, the parent benefits by avoiding the need to downstream cash to help its subsidiary.

Note: We analyze hybrid capital issues of corporates' finance subsidiaries utilizing our financial institutions framework.

Corporate methodology: Leveraged buy-out equity hybrids: Too good to be true

For the past few years, leveraged acquisition activity has employed ever-greater financial leverage. To stretch still more, equity hybrids have been introduced for such buyouts.

A recently popular hybrid security for this purpose provides leveraged buy-outs (LBOs) with a modicum of equity--or, at least the appearance of equity. The security is a preferred stock held by owners of common stock, and has the following terms:

- Perpetual;
- High dividend yield;
- Option of payment-in-kind (PIK), at the discretion of the company, for life of security;
- Some versions provide for PIK only, with no cash payments of dividends for life of security;
- Deeply subordinated; and
- Needs to be redeemed only upon change of control.

At first blush, the security is extremely equity-like. However, we are skeptical about this security's benefit for the company's long-term credit quality. We do not assign it any equity content, and treat it as debt in calculating credit ratios.

We specifically are concerned about the incentives created by this structure to pay the dividend in cash where possible--even when not required--and/or orchestrate a change of control. The LBO context (i.e., very aggressive financial policies of owner/sponsors) heightens our concerns. In the case of aggressive LBO owners, common equity itself is ephemeral: Indeed, for most LBOs, the overarching rating consideration is the risk associated with future owner actions, rather than the specifics of the current balance sheet. (Please see "Credit FAQ: Knowing The Investors In A Company's Debt And Equity," published April 4, 2006, on RatingsDirect.)

Roadmap for redemptions

The current genre of equity sponsors, to generalize, has a track record of taking out its investment in owned entities very quickly, via cash dividends and fees of all types. We should not expect these controlling shareholders to defer cash payment of dividends on preferred securities they hold. Rather, the preferred should be seen as a vehicle--apart from other ways to extract cash--for owners to cash out. The yield on these securities is usually quite robust. Thus, the preferred is a roadmap for one avenue owners can use to take out significant amounts of cash.

If there is no cash payment option, there will be no cash payments, of course. But the owners will still want to see a return on the investment represented by the preferred stake--especially as the value of the preferred investment

accretes quite rapidly, given the high dividend accrual rate. The change-of-control redemption provision can provide the mechanism for doing just that.

Change-of-control redemption

Even though the common share owners can cash out in various ways, there is often a growing incentive to realize the value of their preferred stake. Indeed, their investment will shift to the preferred stock--as taking out common dividends reduces the common equity, while paying the preferred dividends in kind leads to an ever-larger preferred investment. Ultimately, the preferred value may exceed the common value many times over.

This sets the stage for recapitalizing. The owners can orchestrate a change of control to trigger payment of the preferred. The change can be bona fide or contrived. Either way, the preferred likely will be replaced with debt.

Because the entity will be saddled with the takeout debt upon the expected change of control, we view this security as eventual debt, rather than equity, and include that debt immediately in metrics such as debt/cash flow.

In other instances where there are incentives to replace hybrid equity securities, we similarly are concerned that they will be replaced with debt, and we grant no equity content. For example, we presume hybrids with a substantial step-up will be called and replaced with debt in the absence of any specific replacement commitment.

Note that we ordinarily treat potential change-of-control as event risk. Change of control instigated not from within the company, but from without, is unpredictable and deemed to be beyond the pale of ratings analysis. However, regarding the context addressed here, change-of-control is foretold by the terms of the security and the structure of the capital base.

Corporate methodology

Real estate investment trusts

REITs have become increasingly popular in a growing number of countries. A defining characteristic of a REIT is that it does not pay income taxes, but holders of REIT equity, including both common and preferred stock, pay taxes on the dividends received. Tax rules typically require REITs to pay dividends equal to a very high percentage of their earnings.

Similar to the way we view other unregulated corporates, we are concerned about the permanence of REIT hybrid capital. U.S. equity REITs have often refinanced "perpetual" preferred stock with debt. We attribute "minimal" equity credit to most REIT preferred securities, fully burdening the fixed-charge coverage metrics with the preferred dividend.

We have concluded that although REITs may be less likely to defer payment of preferred dividends because of their special dividend payout characteristics, the difference in deferral risk generally does not warrant a different rating outcome for the instrument. (See "Issue Features: Dividend Stoppers, Look Backs, and Pushers" below.)

Applying Hybrid Capital Equity Content Assessment In Credit Analysis: Financial Institutions Methodology (Excluding Insurance)

In assessing financial institutions' hybrid capital securities, we employ the same broad equity content categories as with corporates—"high," "intermediate," and "minimal." To reflect certain finer distinctions linked to regulatory capital, within the "intermediate" category we differentiate between "strong" and "adequate" issues.

Two sector-specific considerations significantly influence our approach to assessing equity content in the case of financial institutions.

First, in the case of regulated financial institutions, regulators have the power to intervene in companies' operations, and they typically determine whether to do so based, at least in part, on their own definitions of capital adequacy. Consequently, and due to the importance of regulatory capital, when assessing individual instruments and their specific features, we take account of the regulators' view. We don't follow the regulators exactly. Rather, we have developed generalized guidelines that vary somewhat from regulators' to facilitate cross-border comparisons.

Qualification as regulatory capital (Tier 1 or Tier 2) is a mandatory requirement for us to include a hybrid security in our total capital measures for regulated companies. If the regulator excludes an instrument from regulatory capital, the instrument provides no cushion between minimum capital and regulatory action, which could include closure. Whereas we are sometimes more conservative than regulators as to where we place a hybrid security in our hierarchy of equity content (compared to regulators' own classification hierarchy), we are rarely more liberal.

The home country financial regulators' capital policy is inscribed in the terms of most bank hybrid capital issues. Not only will the regulatory treatment influence the chosen structure of a hybrid instrument, but the redemption and refinancing of hybrid capital instruments typically is subject to regulatory review. Regulators typically can intervene to enforce the suspension of hybrid coupon payments, restrict the amount of hybrids that an entity can issue, and require any redeemed hybrid to be replaced with an instrument of equivalent strength. Regulators define and accept hybrid capital instruments to allow financial groups to build and manage regulatory capital. They seek instruments that rank below debt in liquidation and that absorb losses while permitting the financial institution to continue to operate. Bank regulators in mature and emerging countries around the world have adopted the Tier 1 and Tier 2 categories of hybrid instruments developed and defined by the Basel Committee on Banking Supervision to rank the instruments by relative capital strength and to regulate capital and leverage in the industry. Bank regulators distinguish between "plain vanilla" subordinated debt, which provides protection to depositors and senior creditors in liquidation, and stronger types of regulatory capital, which defer or eliminate coupon payment under defined circumstances. In many countries, and notably in the EU, regulators further define Tier 2, setting specific standards for eligibility as upper and lower Tier 2 capital. Consequently, when we review a financial institution's hybrid capital instrument, the regulatory intent with respect to the instrument is a dominant factor in our analysis of equity content and payment deferral risk.

The second sector-specific consideration that influences our approach to this sector is that financial institutions are typically characterized by a high degree of financial leverage and heavy ongoing funding requirements. The quality of capital and its ability to provide a cushion against insolvency and liquidity risks are of paramount importance.

Consequently, we apply varying limits to the inclusion of hybrid securities in our capital measures for financial institutions. This parallels the regulatory approach and best fits the highly leveraged nature of financial services companies. These limits vary by degree of equity content: high equity content hybrid securities are subject to higher limits than are intermediate-strong hybrid securities, which are subject to higher limits than are intermediate-adequate hybrid securities (see Table 2).

Table 2a

Equity Content Categories - Financial Institutions		
Equity content designation	Maximum included in adjusted total equity (ATE)*	Examples
High	Up to 50% of adjusted common equity (ACE)	Short-dated mandatory convertible securities (less than three years) Issues with participating coupons
Intermediate-strong	Up to 33% of ACE	Noncumulative, perpetual preferred stock
	Up to 18% or 33%** of ACE	Enhanced trust preferred
Intermediate-adequate	Up to 12% of ACE	Conventional trust preferred
Minimal	Not included in ATE	Issues that otherwise qualify for "intermediate" or "high" but have remaining lives of less than 20 years.

*Maximum amounts are cumulative of lower-designated securities. For example, an issuer that had already issued "intermediate-adequate" hybrids in an amount equal to 12% of ACE could get equity credit for additional "high" issuance up to 38% of ACE (thereby totaling 50%) or up to 21% of ACE in the form of noncumulative perpetual preferred stock (an intermediate-strong instrument, which, by itself, would receive equity credit up to 33% of ACE), thereby aggregating 33% of ACE. **Enhanced trust preferred of regulated N.A. financial institutions is limited to 18%.

Table 2b

Definitions Of ACE And ATE	
Common shareholders' equity (as reported by company)	
	(+) Minority interest-equity
	(-) Dividends (not yet accrued or distributed)
	(-) Revaluation reserves
	(-) Goodwill and nonservicing intangibles
	(-) Interest-only strips
	(-) Tax loss carryforwards
	(+/-) Postretirement benefit adjustments
	(+/-) Other adjustments
= Adjusted common equity	
	(+) Preferred stock and hybrid capital instruments (subject to limits)
	(+) General reserves
	(+) Unrealized gains
	(-) Equity in unconsolidated subsidiaries (financial companies)
	(-) Capital for insurance subsidiaries
	(-) Adjustment for securitized assets
= Adjusted total equity	

Like the regulators, we limit the proportion of hybrid securities in our capital ratios because excessive reliance on hybrid securities increases financial leverage due to the fixed cost of servicing the hybrids and potential concentrations in the redemption dates of dated or callable instruments. The servicing cost of hybrids is less flexible than that of common equity, and many hybrids are less permanent than common equity. Investors expect hybrid securities to pay a fixed coupon. Hybrids often contain features that create incentives for management to retire the instrument, or to repurchase common shares that might be issued as a result of a conversion clause. Moreover, many hybrid securities include highly complex combinations of different features and are still relatively novel and untested, making it difficult to foresee how the securities would perform for issuers in different scenarios--and may cast doubt over how they would absorb losses on a going-concern basis. Thus, a prudent financial policy dictates a degree of caution about reliance on capital in this form.

In the same vein, banking regulators impose restrictions on call and step-up features to limit the incentives to retire regulatory capital that is intended to be permanent. In 1998, the Basel Committee on Banking Supervision issued a notification for regulators to limit acceptance of "innovative capital instruments" with calls and step-ups to a maximum of 15% of Tier 1 capital and to subject innovative hybrids to stringent conditions:

- The call option with step-up should be a minimum of 10 years after the issue date;
- The step-up should be less than or equal to 100 basis points (bps), less the swap spread between the initial index basis and the stepped-up index basis; or the step-up should be less than 50% of the initial credit spread, less the swap spread between the initial index basis and the stepped-up index basis;
- There should be no more than one rate step-up during the life of the instrument; and
- The swap spread should be fixed as of the pricing date and reflect the differential in pricing on that date between the initial reference security or rate and the stepped-up reference security or rate.

Regulators in mature banking markets around the world generally have implemented the 15% Tier 1 limit on innovative hybrids broadly in line with the conditions suggested by the Basel Committee (although there are some exceptions based on the "grandfathering" of previous regulatory agreements).

The following are noteworthy points about our financial institutions methodology:

- As shown in Table 2, we express our caps in terms of percentages of "adjusted common equity" (ACE), as defined. In our capital measures, hybrid capital is included in "adjusted total equity" (ATE), which is a broader form of capital than ACE. Defining our caps in terms of ACE avoids the circularity that otherwise would result if the cap definitions were based directly on ATE.
- We differentiate the equity content of hybrid securities with deferrable payments limited to five years or less (such as conventional trust preferred) and instruments with longer deferral (such as enhanced trust preferred and noncumulative perpetual preferred). The former are typically "intermediate-strong" and the latter "intermediate-adequate."
- Given regulators' role in overseeing and authorizing any refinancing, we are not as concerned about call provisions as with unregulated issuers. Where an issuer is regulated and we believe the regulator will ensure that any refinancing would not be credit-harming, we do not penalize issues with call dates earlier than five years. And even where a call is coupled with a moderate step-up, we do not require a legally binding replacement capital covenant, unless the call date is less than 10 years from the date of the initial issuance. (See sections "Issue Features: Call Provisions" and "Issue Features: Step-Ups, Resets, Remarketings.")
- Hybrid securities with mandatory deferral triggers are never viewed as warranting "high" equity content in the case of confidence-sensitive entities (i.e., financial institutions, including insurance companies). Given financial institutions' heavy funding requirements and need to preserve access to capital markets, hybrid securities with mandatory deferral triggers could result in more harm--stemming from negative market responses--than the benefit derived from reducing debt service obligations. (See section "Issue Features: Mandatory Deferral.")

The following are noteworthy points regarding our approach to U.S. financial institutions in particular:

- The Federal Reserve is considered the leading regulatory authority with respect to hybrid securities by the other bank and securities regulators, who lack detailed frameworks of their own. Thus, we generally assume that the Federal Reserve framework is applicable to all regulated U.S. banks and securities firms.
- Unlike bank regulators in most other countries, the Federal Reserve does not allow issues with step-ups less than

30 years from the initial date of issuance as regulatory capital. This is the approach we take, then, to issues of regulated U.S. financial institutions.

- Our perception is that the Federal Reserve draws a sharp distinction between Tier 1 and Tier 2 capital, placing much greater emphasis on the former in its assessment of capital adequacy (see Table 3). As a consequence, for regulated U.S. financial institutions, we give equity credit only to issues that qualify for Tier 1 regulatory treatment, whatever their characteristics otherwise.
- Generally, in the case of instruments in the intermediate–strong category, we allow for inclusion of the amount outstanding up to 33% of ACE. In the case of U.S. regulated financial institutions, we have a limit of 18% for enhanced trust preferred. (Conventional trust preferred, which we classify as intermediate–adequate, is limited to 12%. Noncumulative perpetual preferred can still qualify for intermediate-strong, up to 33% of ACE.) This special treatment is driven by U.S. regulatory considerations. Specifically, under new rules for determining Tier 1 capital that the Federal Reserve adopted in 2005 and that take effect in first-quarter 2009, so-called "restricted core capital elements," which include trust preferred and other cumulative preferred, are to be limited to 15% of the sum of "core capital components," net of goodwill, for bank holding companies deemed to be "internationally active" (see Table 3). While the Federal Reserve's restriction is limited to internationally active banks (i.e., those with \$250 billion or more of consolidated assets or having \$10 billion or more of on-balance-sheet foreign exposure), given the caution of the Federal Reserve with respect to including trust preferred in Tier 1 capital, even in its enhanced form, we think it is prudent to depart from our normal numeric guidelines. We also believe that for our analytic purposes it is more prudent to hold all U.S. regulated financial institutions to the same standard. Indeed, it is at the smaller, less-diversified banks where matters of capital adequacy assume greater importance. Thus, in our framework, we limit enhanced trust preferred to 18% of ACE for all regulated U.S. financial institutions.

Table 3

U.S. Federal Reserve Board Framework: Components Of Risk-Based Capital For Bank Holding Companies		
Tier of Capital Elements		Limits
<p>Qualifying total capital consist of the following two types of capital components:</p> <ul style="list-style-type: none"> • Core capital elements (Tier I)—which must represent at least 50% of qualifying total capital • Supplementary capital elements (Tier II) 		
TIER I*		
<p>Core Capital</p> <ul style="list-style-type: none"> • Common stock • Perpetual noncumulative preferred stock • Perpetual noncumulative preferred stock convertible into common 	<p>Unlimited, but a majority of TIER I must be voting common stock</p>	
<p>Restricted Core Capital</p> <ul style="list-style-type: none"> • Trust preferred plus three-year forward on common • Trust preferred plus three-to-five-year forward on preferred • Cumulative preferred stock mandatory convertible into common in three years 	<p>25% of TIER I</p>	<p>25% of TIER I</p>
<p>Restricted Core Capital (limited for internationally active BHCs)</p> <ul style="list-style-type: none"> • Cumulative perpetual preferred stock • REIT preferreds (including partnership issued) • Enhanced trust preferred • Traditional trust preferred securities 	<p>25% of TIER I (15% for Internationally active BHCs)</p>	
TIER II		
<p>Supplementary Capital</p> <ul style="list-style-type: none"> • Non-Tier I portion of securities above** • Long-term dated cumulative preferred stock (20 year min. term) • Perpetual subordinated deferrable debt • Subordinated deferrable debt with automatic conversion features • Subordinated debt mandatorily convertible within 12 years 	<p>Up to amount equal to 100% of TIER I</p> <p>(50% of total capital max.)</p>	<p>Up to amount equal to 100% of TIER I</p> <p>(50% of total capital max.)</p>
<p>Supplementary Capital</p> <ul style="list-style-type: none"> • Intermediate-term preferred stock (five-year min. maturity) • Dated subordinated debt (five-year min. maturity) 	<p>Up to amount equal to 50% of TIER I</p>	
<p>*Tier 1 capital is the sum of core capital elements, including permitted restructured core capital elements, less goodwill, other intangible assets, interest-only strips receivables, deferred tax assets, and nonfinancial equity investments.</p> <p>**Non-Tier I portion of REIT Preferreds, and enhanced and traditional trust preferreds become subject to Lower Tier II limit beginning March 31, 2009.</p> <p>© Standard & Poor's 2008.</p>		

For all financial institutions, the analysis of hybrid capital must be placed in the context of the broader analysis of capital, and of a bank or insurer's creditworthiness. Formulaic ratio-driven analysis represents only part of the overall quantitative and qualitative assessment of capital, which in turn can only be analyzed within the broader commercial and financial profile of the rated company. Capital ratios are visible shorthand signals of balance-sheet strength, but are not closely correlated with credit rating levels. Qualitative analysis of capital policy is fundamental to the global assessment of banks' and insurers' creditworthiness. No single measure fully captures the breadth of

information needed to evaluate an entity's capital adequacy. Industry participants--investors, securities analysts, and the company management itself--at times focus excessively on the management of bank and insurance capital with respect to a specific ratio, to the detriment of analysis of broader issues such as risk profile and management. Capital ratios based on historical data are also less meaningful than expectations of future capitalization under various scenarios. Components in the qualitative analysis of capital include: unrealized capital gains or losses and hidden reserves or losses, access to capital and liquidity from third parties, the nature and extent of minority interests, dividend policy, potential for earnings generation and retention, and management strategy with respect to acquisitions, disposals, and investments.

Applying Hybrid Capital Equity Content Assessment In Credit Analysis: Nonbank Financial Institutions Methodology

U.S. broker-dealers

We apply the same analytical framework for U.S. securities brokers that we have developed for banks. We believe the guidelines we utilize for banks capture our notion of what is prudent for securities brokers, despite the differences in business characteristics and fundamentals. Moreover, in the U.S., there has been a convergence of the regulatory standards applied to banks and those applied to brokers. In June 2004, the SEC established a framework for supervising the parent holding company of a SEC-registered broker-dealer. Four firms--Goldman Sachs, Lehman Brothers, Merrill Lynch, and Morgan Stanley--have opted into this supervisory regime, and have thereby become "consolidated supervised entities" (CSEs). The CSE status includes SEC oversight of capital adequacy. In this regard, the SEC has indicated it will abide by the Federal Reserve's standards for inclusion of hybrid capital issues in regulatory capital. Likewise, then, as with U.S. banks, we cap inclusion of enhanced trust preferred in ATE at 18% of ACE.

Finance companies

In assessing the equity content of finance companies' hybrid capital issues and calculating their capital ratios, we apply the same framework as for banks. Finance companies' asset composition and leverage characteristics are broadly similar to those of banks. While bank regulators' tolerances for hybrid capital issuance are not directly applicable to finance companies, we believe the guidelines we utilize for banks nonetheless capture our notion of what is prudent for finance companies. However, finance companies' enhanced trust-preferred are included in ATE up to 33% of ACE. We do not impose the 18% cap we apply to U.S. banks, since this tighter limitation is based strictly on regulatory considerations. On the other hand, without the external oversight of a regulator to help ensure that prudent capital levels will be maintained, we believe it is appropriate to apply stricter standards for replacement in cases where issues are callable and there is a step-up in the interest or dividend rate if the issue is not called. Here, we utilize the same guidelines as we do in considering corporates. Thus, if the step-up is material, we require an RCC for "intermediate" or "high" equity content, in jurisdictions where RCCs are legally valid and practical (see section "Issue Features: Replacement Capital Covenants.").

Asset managers

In assessing equity content and calculating financial ratios of independent asset managers' hybrid capital issues, we essentially use the corporate model rather than the framework applied to banks, finance companies, and broker dealers. There are three reasons for this. First, commercial banks are highly leveraged, asset-intensive financial institutions; traditional asset managers are not. At most banks, loans and deposits are the largest items on the balance sheet. In contrast, asset managers have relatively small balance sheets. Second, as a result of the nature of

their balance sheets, credit metrics differ between banks and traditional asset managers. Third, as banks, brokers, and insurance companies are heavily regulated financial institutions, our approach toward hybrid securities for these entities parallels that of the relevant regulators, whereas, where matters of capital are concerned, asset managers are largely unregulated.

Stock and commodity exchanges

Similar to asset managers, in the case of stock and commodity exchanges, we also employ the corporate model rather than that applied to banks, finance companies, and broker dealers. Our approach toward rating stock and commodity exchanges focuses on the cash flow generated from operations to service their financial obligations. Monoline exchanges that only provide trade execution and ancillary services (e.g., price dissemination) are less capital-intensive than other financial institutions such as banks and brokers. However, more diversified exchanges that also provide clearing and settlement, securities custody, and even banking, require some additional capital to support these more risky businesses.

Applying Hybrid Capital Equity Content Assessment In Credit Analysis: Insurance Methodology

We apply compatible methodologies when assessing the capital strength of banks and insurers, while recognizing the different nature of business risk and regulation in the two industries. We also reflect different national regulators' varied regulatory practices.

Regulatory policy in the insurance sector is generally less developed than in the bank sector; thus, many insurance regulators look to banking regulators for guidance in establishing policy on inclusion of hybrid instruments, including securities with calls and step-ups, in regulatory capital. In some countries, from the U.K. to The Netherlands and to the regulators in some countries of the Gulf Cooperation Council, the combination of bank and insurance regulation under one roof (e.g., the Financial Services Authority in the U.K.) has facilitated a convergence of bank and insurance regulatory policy with respect to hybrid capital. Furthermore, outside the U.S., there is a trend toward more consolidated group supervision—e.g., by 2012, we expect this to apply to the whole EU under the Solvency II Directive. Still, in other parts of the world, insurance holding companies are rarely formally regulated, unlike bank holding companies. Most hybrid issuance is now from holding companies to give the consolidated groups optimal financial flexibility.

When we rate a regulated insurance or reinsurance company, we take account of the risk of full, formal regulatory intervention and presumed wind-up of the institution. Consequently, the amount of hybrid capital allowable in our capital analysis of insurers and reinsurers can vary according to local regulatory practice as regards eligible solvency capital, though we are rarely more generous than the local regulators. (In jurisdictions where the insurance regulators have expressed no view on a specific hybrid capital instrument issued by an insurance group, Standard & Poor's establishes its own stance on likely regulatory policy with respect to the instrument.)

To better reflect the often significant regional variations in the nature of insurance regulation as well as the many local differences in the regulatory eligibility of diverse forms of capital, we have differentiated criteria in respect of our hybrid capital and double-leverage tolerances. We focus on two analytic variables that are used to establish appropriate tolerances for hybrid capital and for the proceeds of ordinary debt-funded double leverage—that is, the extent to which regulators are likely to enforce structural subordination on a company-by-company basis, and also the local regulatory tolerance of debt capital in eligible solvency.

For this reason, in line with local regulatory practice and given the extraordinary force of structural subordination that prevails, capital credit may be given in the U.S., for example, for ordinary debt-funded double leverage whereby an insurance holding company raises conventional senior or subordinated debt and downstreams the proceeds of that debt as equity at the regulated subsidiary operating level. In such circumstances, the additional tolerance for "intermediate" hybrid leverage is normally constrained at a maximum of 15% of operating group total adjusted capital (TAC; plus 10% for "high" equity content issues) given the capital credit already allowed for debt-funded double leverage.

Meanwhile, in much of the rest of the world, regulators calculate insurance and reinsurance solvency on a fully consolidated group basis, and generally exclude all leverage and double leverage except that which is funded by eligible hybrid equity. Standard & Poor's analysts in most parts of the world outside the U.S. do not recognize equity content in their group capital analyses for ordinary or subordinated debt, and instead only allow capital credit for explicitly hybrid equity leverage, normally up to 25% of TAC for "intermediate" hybrid issues, or up to 35% of TAC for "high" issues. This difference in regulatory policy is also reflected in holding company notching where, for example, U.S. holding companies are normally rated three notches lower than the counterparty credit rating of the core operating companies in the group. A two-notch differential normally applies to European groups.

For capital models that are based on operating company statutory balance sheets, we deduct the excess over the double-leverage tolerances from TAC. For capital models that are based on consolidated GAAP balance sheets, we add qualifying hybrid capital to TAC, subject to the tolerances referred to in Table 4. However, we include any hybrid capital issuance in excess of 15% in the numerator of our leverage calculations. We do not generally recognize hybrid issuance of operating companies (reflected also as hybrid capital in the relevant parent's consolidated financial statements) as such in our consolidated capital adequacy analysis (see table 4).

Table 4a

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 exclude holding-company senior debt from group solvency capital (e.g., Europe and Canada)--	
Category	Maximum tolerance	Category	Maximum tolerance
Total double-leverage tolerance	Up to 45% of capital*	Total double-leverage tolerance	Up to 35% of capital*
Debt-funded double leverage	Up to 20% of capital*	Debt-funded double leverage	0%
'High equity content" hybrid tolerance (three-year mandatorily convertible)	Up to 25% of capital*	'High equity content" hybrid tolerance (three-year mandatorily convertible)	Up to 35% of capital*
Sublimit "intermediate equity content" hybrid tolerance	Up to 15% of capital*	Sublimit "intermediate equity content" hybrid tolerance	Up to 25% of capital*
'Minimal equity content" hybrid tolerance	0% credit	'Minimal equity content" hybrid tolerance	0% credit
Hybrid Ratios			
U.S.	Standard & Poor's qualifying hybrid/[U.S. GAAP (consolidated) capital + total hybrid + total senior debt]	Europe	Standard & Poor's qualifying hybrid/[group consolidated TAC (excluding hybrid) + regulatory qualifying hybrid capital]

Table 4a

Maximum Tolerances For Double Leverage And/Or Hybrid Equity Usage (cont.)

Double Leverage			
U.S.	[Standard & Poor's qualifying hybrid + total senior debt + nonqualifying hybrid] / [U.S. GAAP (consolidated) capital + total hybrid + total senior debt]	Europe	Standard & Poor's qualifying hybrid / [group consolidated TAC (excluding hybrid) + regulatory qualifying hybrid capital]

*The definition of "capital" in regard to the maximum tolerance varies by region. In the U.S. and Bermuda, capital is defined as [U.S. GAAP consolidated equity + total hybrids + debt] with no adjustments to the reported numbers. In Europe and Canada, capital is defined as [total adjusted capital (TAC) + regulatory qualifying hybrids]. Note that TAC is a measure of adjusted equity capital and excludes debt. In Europe and Canada, the hybrid tolerance is higher (e.g. 35% versus 25% for high equity content) to normalize for the smaller denominator, which excludes holding-company debt.

Table 4b

Components Of TAC

Reported shareholders equity/policyholder surplus	
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
= ECA (economic capital available)	
Minus	Remaining goodwill after Standard & Poor's impairment
Minus	Investment in unconsolidated subsidiaries, associates, and other affiliates
Minus	Investments in own shares/treasury shares
Minus	50% deducted of off-balance-sheet value of in-force (post tax)
Minus	50% deducted of life deferred acquisition costs (post tax)
Minus	100% deducted of property/casualty deferred acquisition costs
Minus	50% deducted of property/casualty loss reserve surpluses
Minus	33% deducted of property/casualty loss reserve discount
Plus	Policyholder capital available to absorb losses
Plus/Minus	Analyst adjustments
= TAC before hybrid capital adjustments	
Plus	Hybrid capital (subject to tolerance limits)
Minus	Excess over hybrid tolerance
= Total Adjusted Capital	

*Where not already included in shareholders' equity. **Subject to fair value exception. ***Where tax effect not disclosed, use effective tax rate.

In the insurance sector, we continue to review a variety of prefunded contingent capital arrangements and, assuming acceptable security features, have viewed these as eligible hybrid equity up to 5% of the capital structure for investment-grade issuers. This 5% is a subset of the traditional 15% capital bucket. For example, a trust issues perpetual or long-dated pass-through securities, with the proceeds ultimately used to purchase eligible assets that reside in a Regulation 144 Trust. For these securities, the insurer has a put option giving it the right to put the insurer's preference shares having a liquidation value equivalent to the assets owned by the trust to a special-purpose entity. We would expect a trigger to be included in the securities, requiring mandatory exercise of the put if the insurer's credit strength falls below investment grade for these securities to be viewed as equity currently.

We would accept the instrument, when drawn, as equity subject to the guidelines of any hybrid security. As with other hybrid instruments viewed as equity, they must have an appropriate long-term maturity, cannot be funded with an auction-preferred mechanism, and cannot have any feature that would cause management to make them a short-term security.

Bond insurers

Our approach to the so-called monoline bond insurers differs somewhat from our approach to multiline insurance companies.

What is the equity treatment for hybrid securities issued by a bond insurance holding company, and is there a limit on the amount of hybrid securities that can be part of its capital structure?

In the case of bond insurers, securities with "high" or "intermediate" equity content receive 100% equity treatment subject to limitations, while "minimal" equity content issues receive zero equity treatment and are treated as debt.

There are two ratios in our bond insurance rating criteria that limit the amount of hybrid securities that can be part of an insurers' capital structure:

- Holding company hybrid security tolerance ratio: Hybrid securities are limited to a maximum of 15% of the holding company capital structure. For this ratio, hybrid securities exclude contingent capital facilities. The formulaic expression of the hybrid security tolerance ratio for a bond insurance holding company is: $\text{hybrid securities} / (\text{capital} + \text{hybrid securities})$; in this ratio, capital is defined as shareholder equity plus long-term debt.
- Holding company total hybrid tolerance security ratio: Hybrid securities plus contingent capital facilities cannot exceed 20% of a holding company's capital structure. Contingent capital facilities are included in this calculation even though they may be "issued" by a subsidiary. The formulaic expression of the total hybrid security tolerance ratio for a bond insurance holding company is: $(\text{hybrid securities} + \text{contingent capital}) / (\text{capital} + \text{hybrid securities} + \text{contingent capital})$.

If a bond insurance holding company exceeds its tolerance ratios, how would the amount that exceeds the tolerance ratios be treated?

Analytical treatment will differ in situations where a holding company exceeds tolerance ratios:

- If the level of consolidated hybrid securities exceeds the tolerance ratios due solely to contingent capital facilities, the overage of the contingent capital facility would be treated as neither debt (for holding company capitalization analysis) nor equity (for operating company capital modeling exercise).
- If the level of consolidated hybrid securities exceeds the hybrid equity tolerance ratio but not the total hybrid equity ratio, the overage of the hybrid equity tolerance ratio would be treated as debt (for holding company

capitalization analysis) and the operating insurance company would receive full credit for any contingent capital facility, subject to limitations imposed on the insurance operating company. For example, if a holding company had \$3.2 billion of capital, the hybrid security tolerance limit would be \$565 million and the total hybrid security tolerance limit would be \$800 million. If there were \$650 million of "high" or "intermediate" equity content hybrid securities outstanding, only \$565 million would receive appropriate equity treatment and the remaining \$85 million would be viewed as debt. The presence of a \$200 million contingent capital facility would not exceed the total hybrid security tolerance limit.

- If the level of consolidated hybrid securities exceeds the limit due to the combination of contingent capital facilities and other hybrid securities, the amount of hybrid security tolerance consumed by the contingent capital facility would first be evaluated. The remaining hybrid security tolerance cushion would be measured against any remaining hybrid securities to determine the amount of equity treatment for the hybrid securities. For example, if a holding company had \$2.8 billion of capital, the total hybrid security tolerance limit would be \$700 million. The presence of a \$600 million contingent capital facility would leave a cushion of \$100 million. If there were \$400 million of "high" or "intermediate" equity content hybrid securities outstanding, only \$100 million would receive appropriate equity treatment, and the remaining \$300 million would be viewed as debt.

What effect does the use of debt and hybrid securities issued by a holding company have on the funding of an operating bond insurance company's capital?

Bond insurance holding companies typically issue debt or equity securities to fund the capital needs of their bond insurance subsidiaries. Once the proceeds from these securities are downstreamed to the operating insurance company, they are viewed as equity for capital adequacy purposes. However, we have criteria that limit the amount of financial leverage a holding company can employ. In determining a holding company's financial leverage, we consider the amount of long-term debt (including hybrid securities over the tolerance ratio) and equity (including hybrid securities under the tolerance ratio). The capitalization ratio is defined as: long-term debt/(long-term debt + equity). For bond insurance holding companies, a capitalization ratio of 20% or less is thought to be appropriate.

What effect does the establishment of a contingent capital facility have on the various insurance operating company capitalization ratios?

When looking at a bond insurance operating company's capital structure, the overall tolerance for contingent capital is 20% of total adjusted capital across all rating categories. Total adjusted capital is defined as statutory surplus plus contingent capital. The formulaic expression of the contingent capital tolerance ratio for an operating insurance company is: contingent capital/(statutory capital + contingent capital).

If a bond insurer had statutory capital of \$3.6 billion, contingent capital would be limited to \$900 million. Even if a contingent capital facility totaled \$1.0 billion, there would only be recognition of equity content for the \$900 million in capital adequacy testing.

Any contingent capital in excess of 20% of total adjusted capital will not be considered in capital adequacy modeling. In addition, these types of capital markets instruments are a component of the reliance-on-soft-capital ratio, which should not be greater than 33%. Fees paid on the entire amount of the contingent capital facility are included as interest expense in the evaluation of the holding company's GAAP interest coverage ratio. The GAAP interest coverage is defined as: (GAAP pretax operating income + interest expense)/interest expense.

In terms of the equity treatment a bond insurer receives in Standard & Poor's capital adequacy model for contingent

capital structures, does it matter what type of security would be issued once the bond insurer exercises its put?

First and foremost, the security issued by the bond insurer once it exercises its put must be viewed as equity by the insurance regulator for us to consider recognizing any equity content. Any security viewed as debt does not add to statutory capital, and therefore will receive no recognition of equity content in the capital adequacy model. To date, preferred stock and surplus notes have been the only put securities for which the bond insurers have received any recognition of equity content in the capital model, as regulators view these securities as equity. A contingent capital structure in which the insurer has the option to issue either surplus notes or senior notes once it exercises its put option will receive no recognition of equity content in the capital adequacy model. However, choosing to issue surplus notes would add to statutory capital, while opting to issue senior notes creates a liability and does not add to statutory capital.

Issue Features

In this section we focus on some selected instrument features that tend to play an important role in our determination of equity content. It bears repeating, though, that while detailed assessment of a specific hybrid capital security is obligatory to classify the security by its relative equity value, we ultimately take a holistic approach. Also, it is rare that the detailed features of a hybrid instrument have a material impact on an issuer's overall creditworthiness.

Issue Features: Optional Deferral

We believe issuers' option to defer dividend or interest payments under the terms of most hybrid capital instruments affords significant equity benefit. Such a feature provides issuers with the ability to conserve cash at a time of financial stress, without triggering a legal default.

The longer a company can defer payments, the better. An open-ended ability to defer until financial health is restored is best. As a practical matter, we believe the ability to defer dividend payments for up to five years is most critical in helping to prevent a general default. If the company cannot restore financial health within that period, it probably never will. The ability to defer payments for shorter periods may be valuable, but equity content diminishes quickly as constraints on the company's discretion increase. We give no more than "minimal" equity content for instruments where the maximum deferral period is less than five years.

Issue Features: Mandatory Deferral

Certain securities have mandatory triggers that force deferral of distributions, conserving cash for a company that is experiencing reverses in its business or funding capabilities. With the use of mandatory triggers, concerns about management's reluctance to exercise the right to defer are avoided. When triggers are set at a level we would equate with the company possibly exercising its right to optionally defer payments, instruments typically warrant "intermediate" equity content, providing they are adequately equity-like in other respects.

When triggers are set at a level close to the company's current rating level (i.e., within two or three rating notches of the current rating), these securities can support the current level of credit quality, and thereby potentially qualify for our "high" equity content designation, providing they are adequately equity-like in other respects. Obviously,

though, investors are taking substantial risk--well beyond the issuer default risk--and this risk is reflected in relatively low ratings on the securities themselves (see section "Rating The Issue: Deferral").

On the other hand, we have been concerned that these benefits could be offset by exposing the company to negative market responses. Such "high" equity content instruments may not work as intended--especially if investor reaction to payment deferral is very negative. That concern has become more pronounced in light of recent mortgage-related capital market turbulence, which has underscored the extent to which "headline" factors can dramatically affect financial institutions' (including insurance companies') funding flexibility, whatever the state of credit fundamentals otherwise.

We believe that for companies that are confidence sensitive--such as financial institutions (including insurance companies) --deferrals driven by mandatory triggers could result in more harm than the benefit realized by reduction in debt service obligations. Accordingly, we do not consider hybrids with tight mandatory triggers as eligible for "high" equity content for confidence-sensitive issuers.

More broadly, even for issuers in less confidence-sensitive sectors, if the triggers halt payment while the company is still far from being incapable of making the payments, the benefits of reduced debt service would generally be small relative to the potential headline risk and investor reaction, such as where the trigger threshold is at a level where the company is investment grade. The company could pay a price in terms of its financial flexibility. (Alternatively, the company could be motivated to avoid the deferral by retiring the issue.) We recognize these risks associated with mandatory deferrals in qualitative aspects of our analysis, no matter how the security is treated for ratio calculation purposes.

Specific features of the security could mitigate or heighten the risk--and recent proposals for securities structured to achieve high equity content have included features that are pertinent.

In this regard, the trigger must not be opaque or overly complex. It can be defined by a downgrade or breach of various financial benchmarks that serve as a proxy for credit quality. Any metrics used in defining the triggers need to be straightforward and highly transparent. But they also must be customized for the specific context of the issuer. Complexity may be hard to avoid, especially given the interplay of business risk with financial indicators of credit quality. (This can be especially challenging in sectors such as regulated utilities, where the business risk profile plays an outsized role.)

Some structures shift deferral risk from the investors by introducing a financial counterparty to stand in for the company at the point of deferral. By effectively dealing with the direct risk to investors, market reaction might arguably be muted. Still, the need for third-party intervention could produce similar negative responses. Moreover, the relationship of such a counterparty vis-à-vis the issuer could give it special clout to avoid or undo the cash savings of any deferral.

Issue Features: Maturities/Scheduled Maturities

We apply a common standard regarding remaining time to maturity to all investment-grade financial institutions (including insurance companies) and corporates, in all regions. Under this standard, we require a hybrid capital issue to have a remaining term of at least 20 years to receive our "intermediate" or "high" equity content designation--unless the issue mandatorily converts into another type of equity-like issue in a shorter time frame.

Other things being equal, we view undated (i.e., perpetual) and very long-dated securities as superior instruments from the perspective of equity content. But, as a practical matter, we believe an issue having a remaining life of 20 years or more is sufficiently permanent to warrant our "intermediate" equity content classification when other issue features are consistent with this designation. In the case of financial institutions, we do not use the remaining term of the issue—beyond 20 years—to differentiate between "intermediate-strong" and "intermediate-adequate" issues. (These subcategories are not used with insurance companies.) Rather, such differentiation would reflect other issue features, such as the flexibility of payments.

"Intermediate" or "high" issues with initial maturities of greater than 20 years that subsequently fall to less than 20 years of remaining maturity are reduced to "minimal" equity content at that point, and as such do not receive any formal equity treatment in our calculation of financial ratios. There is no amortization period. Nevertheless, as a qualitative matter, we are still sensitive to the benefits afforded by such issues—for example, the deferability of ongoing payments—even where the "intermediate" or "high" equity content determination is not warranted because the condition of a long remaining term is no longer met.

For speculative-grade issuers, where debt maturities are typically far shorter than with investment-grade credits—and where, more broadly, the scope of our analysis necessarily extends fewer years—we do not apply the same standard. Here hybrid capital issues with maturities shorter than 20 years can still achieve the "intermediate" or "high" equity content designation, assuming other features make this appropriate. Generally, 15 years of remaining life suffices for issuers rated in the 'BB' category, and 10 years for issuers in the 'B' category.

Some issues have so-called "scheduled maturities," where the issuer is required to undertake all "commercially reasonable efforts" to refinance the issue. If the issuer is unsuccessful at refinancing the issue, it must repeat the attempt periodically. We treat scheduled maturities as effective maturities, even where accompanied by legally binding replacement provisions. The latter do not mitigate scheduled maturities, which still expose the issuer to a sharp increase in financing costs if its credit spreads have widened. (We lower the issue rating to 'C' when it is not redeemed at the scheduled maturity as a result of the issuer's financial distress.)

(Note: We announced the current standards for minimum remaining terms and scheduled maturities on Feb. 20, 2007. Previously, we had different remaining-term standards in different sectors, and did not view scheduled maturities as effective maturities where there was a legally binding replacement provision in place. We stated that our new approach would not be applied to then-outstanding issues or to any then-pending issue where we had already reviewed the terms. Such preexisting issues of banks will continue to receive unchanged recognition of equity content until five years are remaining until maturity, and the equity content will then be amortized down at 20% per year. Such preexisting issues of insurance companies will continue to receive unchanged recognition of equity content until 10 years are remaining, and equity content will then be amortized down at 20% per year. We attribute no equity content when there are five years or less to maturity. Permanence of the instrument remains an essential and enduring criterion for equity content.)

Issue Features: Call Provisions

The ability to call can give reason for pause, since it puts into question whether the issue will remain outstanding beyond the initial call date. However, where an issue contains a call provision, the issuer has the option to redeem the issue, but no obligation to do so. Importantly, there hasn't been any significant market stigma associated with an issuer not calling an issue when there is no step-up. From a credit perspective, it might even be advantageous for the

company to retain the flexibility to exercise a call provision—to take advantage of issuing a similar equity-content hybrid at lower cost if the opportunity presents itself. Thus, typically we have not placed much emphasis on the inclusion of a call provision, especially if the instrument is truly low-cost—such as with tax-deductible instruments—and, therefore, shouldn't make the company feel pressed to refinance. However, we consider a hybrid with a longer period to the call date to be more equity-like than one with a shorter period to the call, all else being equal. This reflects the longer period that the former will remain in the capital structure on an obligatory basis.

As long as we believe the issuer intends either to keep the issue outstanding or refinance it with the proceeds of another issue warranting comparable equity content, we do not view the call date as an effective maturity. Still, in the case of unregulated issuers, we are highly skeptical of issuers' intentions in cases where the initial call date is less than five years after issuance: We generally do not give more than "minimal" equity consideration for issues in such cases. When a discrete call date is followed by more than five years during which the issue may not be called, an RCC can mitigate the unregulated issuer's incentive to call. If an issuer is regulated and we believe the regulator will ensure that any refinancing would not be credit-harming, we generally do not penalize issues that may be called earlier than the fifth anniversary or with discrete call dates.

Issue Features: Step-Ups, Resets, Remarketing

We view call provisions that are coupled with step-ups in the dividend/interest rate—or with other mechanisms that can likewise increase the cost to the issuer—very differently from simple calls. Where call provisions are combined with material step-ups, they are specifically designed to motivate calling of the issue to avoid the step-up. The idea, obviously, is to convince the market to price the issue as if the term were no longer than the period to the initial call—rather than until the final maturity. Because of investor expectations, the issuer could face reputational risks if it were ultimately to choose not to call the issue (which investors, for their part, have referred to as "extension risk"). This could pressure the issuer to call, even when it were not economically or otherwise optimal for it to do so. Clearly, this is incongruent with the notion of permanence that underlies equity content.

Currently, we view a step-up in the dividend/interest rate of 25 bps or less as not material, and thus not requiring any particular offsetting feature to preserve equity content.

In typical interest rate environments, we view step-ups in the range of 26 bps-100 bps in the case of issues of investment-grade issuers as material, but still moderate. At present, 100 bps is the de facto regulatory limit for banks, in most cases, as well as the norm for investment-grade issuers in most markets. (Under our criteria, we allow up to 200 bps for noninvestment-grade issuers, given that the initial financing cost is relatively higher.) Here, notwithstanding the disincentives, we view it as at least possible that the issuer would choose not to refinance if circumstances were unfavorable: in that event, the resulting higher rate would not be onerous. Still, to preserve the notion of permanence and thus qualify for "intermediate" or "high" equity content, we generally require issues of unregulated issuers with moderate step-ups to have legally binding RCCs. The RCC can restore sufficient assurance of permanence by stipulating that any refinancing be with proceeds of a similarly equity-like issue.

In some cases, bank and insurance regulators accept step-ups set at 50% of the initial credit spread of the issue, as defined. Where regulators have explicitly approved such an approach, we would generally view the step-up as moderate. Although if the step-up appears to us to be onerous (e.g., seemingly reflective of a temporary spike in market pricing), we could still conclude it is not consistent with equity content. Outside of regulated sectors, we would be open to flexible approaches to determining the step-up, but would need to be convinced that the results

would not be punitive for the issuer.

Some instruments provide for a step-up in the coupon if the company issues similar capital within a specified time period with a higher coupon. This type of "make-whole" reset burdens the issuer with higher payments when it is likely to be under stress and increases the aversion to issue more capital when it might otherwise be prudent.

We are less concerned about explicit replacement provisions for callable issues of regulated entities, which include banks and bank holding companies in most countries, European insurance groups, North American insurance operating companies, and U.S. broker dealers. In this context, we treat such issuers as U.S. insurance holding companies, regulated utilities, asset managers, securities exchanges and clearinghouses, and unregulated finance companies as effectively unregulated. (Note that while unregulated finance companies require an RCC to offset a moderate step-up, the application of equity content treatment generally follows the methodology applied to regulated financial institutions. See section "Applying Hybrid Capital Equity Credit Assessment In Credit Analysis: Nonbank Financial Institutions.")

In regulated sectors, issues with moderate step-ups but lacking legally binding RCCs qualify for "intermediate" equity content (but not "high" equity content), provided that the issues meet the standards for "intermediate" equity content in other respects. The spirit of financial institution regulation is to maintain a sound level of capital. Consequently, the oversight powers of the regulators generally include the authority to prevent a call and/or force the issuance of other equally strong capital as a replacement. This, combined with our understanding of the incentives that generally drive financial institutions' (including insurance companies') financial policies, ensures permanence. (Although regulators may in some cases focus only on whether minimum solvency requirements are met, the regulatory authority remains more important analytically, and the presence of a replacement provision would only provide incremental comfort). Under our criteria, when an RCC is not required, we do not look at the RCC expiration date or the other terms as defining the effective maturity or as otherwise being detrimental to equity content. Although we generally look to the regulator to ensure replacement where appropriate, where regulators allow short-dated calls combined with step-ups (we define short-dated as less than 10 years), we would require a legally binding RCC to cure the overwhelming lack of permanence even if the national regulator classifies the issue in question as regulatory capital. On the flipside, where the regulator objects to a step-up or other feature, such as a step-up before year 30 for U.S. bank holding companies, we generally follow that more stringent regulatory approach.

For regulated and unregulated issuers alike, where issues have step-ups of more than 100 bps (or 200 bps in the case of speculative-grade issuers), we view the call/step-up date as the effective maturity of the issue. Also, we do not generally classify securities with call and step-ups of less than five years from the date of issuance as "intermediate" or "high" equity content even if the securities have an RCC. We believe such a short noncall period puts in question the issuer's intentions.

Other repricing mechanisms

We increasingly are skeptical about features that seemingly try to obscure their purpose of provoking the issuer to call the issue. Thus, many long-dated equity hybrids have a fixed rate for the first 10 years, then convert to a variable rate. That variable rate may incorporate a penalty feature, other than a step-up, that is designed to motivate the issuer to call the issue: We then likewise question the permanence of the issue.

One example of such a penalty involves the payment of the highest of various rates that could fluctuate relative to each other. We have accepted as consistent with equity content some approaches that employ two or three rates tied

to points on the yield curve, the highest of which determines the instrument's yield for each dividend period. Because the yield curve is normally upward-sloping, we presume the rates will not fluctuate--rather, that the long-term benchmark will pertain.

However, using a long-term benchmark for a security that resets at short intervals would itself be a penalty if not appropriately adjusted. Any long-term benchmark rate must be modified to make it economically comparable with a more appropriate short-term benchmark rate, to eliminate the penalty aspect. For example, the applicable rate could be a percentage of the long-term benchmark rate or "x" bps below the benchmark rate.

We presume that use of a long-term benchmark, on its own or in combinations, is an inherent penalty rate--unless there is an adequate pricing modification that equates it with the short-term benchmark rates ordinarily used for variable-rate debt. We will evaluate securities that incorporate such pricing modifications to a long-term benchmark rate individually. Our acceptance of the specific modified rate will require a rigorous statistical analysis of whether the modification is adequate. Such analyses should be provided by the structuring bank.

RCCs can remedy a penalty-rate situation, to a point. We are sensitive to the size of the penalty involved, as noted above. If the penalty is greater than moderate (typically, if it exceeds 100 bps in investment grade), we do not recognize equity content even where an RCC is in place. Because of the difficulty in calculating the penalty associated with use of long-term benchmarks, given the constantly fluctuating variables involved, we cannot presume the penalty is 100 bps or less. Therefore, RCCs are insufficient to remedy this feature, without the aforementioned modifications and accompanying statistical analysis.

Other repricing mechanisms that we view as greater than a moderate penalty, and thus inconsistent with equity content, even with the presence of an RCC and/or regulatory oversight, include the following:

- Where there is a reset based on the then-relevant credit spread of the issuer--rather than on the issuer's initial credit spread--such that any deterioration in perceived credit quality would be reflected in a higher cost to the issuer;
- A reset to a floating rate from a fixed rate, but with a preestablished floor, is generally deemed inconsistent with equity content because calling and refinancing the issue may be less expensive than leaving the issue outstanding. However, an exception is sometimes made for instruments that are treated as Tier 1 capital of a regulated financial institution, if we are convinced that the reset mechanism does not represent more than a moderate penalty;
- Discrete calls that are followed by extended periods when the issue is not callable. For unregulated issuers, where that period is longer than five years, an RCC is required. The lengthy period during which the issuer must live with the current terms creates an incentive to redeem on the call date. This mechanism is especially onerous when combined with a coupon step-up because the issue is then subject to the penalty rate for an extended period; and
- Incentives to call that are qualitative, fluctuate, or are otherwise difficult to value will be assessed case by case. Our policy is to view almost every incentive or penalty, when combined with a 100-bps coupon step-up, as problematic, since the coupon step-up is already at the ceiling of the acceptable range for a moderate penalty. Examples could include a loss of favorable accounting treatment, higher cash flows, higher after-tax cost, or loss of peripheral tax benefits.

We do not, however, view the reduction of equity content to "minimal" as increasing the incentive to call, given the qualitative benefits we continue to attribute to issues with minimal equity content, and the paradoxical circularity of

that logic.

Under the terms of some initially convertible issues, at some point the issue becomes nonconvertible and the rate increases—supposedly to the rate that would have been in place if the issue initially had not been convertible. We must assess each such case to determine if the increase is indeed consistent with the loss of the option value, and whether the increase in interest expense should be viewed in the same light as a step-up.

Issue Features: Replacement Capital Covenants

An RCC is a legally enforceable commitment by the issuer to replace a hybrid capital issue upon its call, redemption, or repurchase with an instrument having specified characteristics. To be effective in helping to preserve credit quality, the RCC must commit the issuer to replace a hybrid security, if it is called, redeemed, or repurchased, with an instrument having similar equity-like characteristics in terms of payment flexibility, degree of subordination, and permanence. In July 2005, First Tennessee Bank N.A. first demonstrated the feasibility of providing a legally binding replacement clause when it made a "declaration of covenant" in connection with its preferred stock issuance. The covenant favors holders of the bank's covered debt. Where appropriately structured, an RCC can alleviate our concerns regarding the permanence of an issue having a call provision that is coupled with a moderate step-up: This is the only situation where we have any specific requirement for an RCC under our hybrid capital framework.

With respect to limitations on refinancing, covenants contained in the issue itself have dubious efficacy. After all, investors in the hybrid issue are likely to be indifferent to what the credit quality of the issuer is once their issue has been retired. The RCC addresses this by being structured for the benefit of holders of certain designated "covered" long-term debt of the issuer, giving these debt holders the right to pursue remedies against the issuer if terms of the covenant are not satisfied. Thus, in the legal sense, the replacement covenant is a separate agreement, not part of the hybrid issue indenture.

Beneficiaries of the covenant should be comprised of debtholders with significant amounts outstanding (excluding, of course, any amounts held by the company or its affiliates). If the RCC runs to a specific covered debt issue, the RCC should provide for transfer to another issue upon maturity or repayment of the original covered debt issue. Covered debt is preferably unsecured (senior or subordinated), since unsecured debt holders would ordinarily have the greatest incentive to enforce the covenant. However, even secured debt holders can be expected to act to enforce the RCC on their own behalf—and we would rely on that in the absence of appropriate unsecured issues to serve as the covered debt.

In addition, the replacement issue should equal at least the amount redeemed. There is one exception: As a practical matter, we take a mix of 50% common equity and 50% debt to be an acceptable alternative to refinancing with 100% hybrid capital, for issues receiving "intermediate" equity content. (Common stock here refers to equity issuance with cash proceeds that can be used to partially refinance the hybrid, not retained earnings or equity issued as payment for acquired assets.) This is based on the rough generalization that the positive impact of common on the company's credit profile is double that of intermediate instruments. We do not generally consider less than full replacement by another hybrid capital issue to be adequate.

Replacement instruments need to warrant at least the original equity content designation ("intermediate" or "high"), in terms of payment flexibility and subordination. It suffices, though, for the term to extend only through the issue's initial effective maturity. In this regard, we recognize the full measure of equity content only so long as an

issue has at least a 20-year remaining life. So, in this respect, a 20-year replacement issue would not achieve recognition of equity content received upon the original issuance. While issuing a new security that has limited equity content from day one may not be intuitive at first glance, the effect is identical to all cases where the original is not called. And, the alternative—that no such replacement was to occur—would imply that no equity content should be granted in the first place. To illustrate: A 30-year security gets equity treatment for only 10 years. (The reasons for this are the company will enjoy a substantial period during which it can defer payments, and the payment of principal is still far enough in the future that it hardly factors into the current rating.) In effect, all nonperpetual hybrids that remain outstanding until maturity will exist for 20 years during which they no longer receive recognition of equity content (the 20 years prior to maturity). If a 30-year security were replaced in year 10 with a new 20-year instrument, that would replicate the initial instrument and be consistent with recognition of equity content for the initial 10 years, and no equity content thereafter.

Finally, the new replacement capital should be raised well in advance of the planned call to avoid incentives to redeem early and bypass the refinancing requirements.

Although RCCs can alleviate concerns regarding the permanence of the issue, they can give rise to new concerns if they are overly rigid and detailed—given the potential for unintended, unforeseeable consequences. For our criteria, issuers can incorporate flexibility in the choice of replacement securities. It is satisfactory for the covenant to commit in general terms that the issue be replaced with a security having similar equity-like characteristics. Moreover, we view as acceptable "carve-outs" that would excuse the issuer from the replacement obligation under certain circumstances, as follows:

- There is no material debt outstanding to serve as covered debt.
- Change of control. The issuer's undergoing a potentially radical transformation of this type is a form of "event risk" that we typically don't factor into either our issuer credit ratings or issue ratings.
- Tax law changes. Without tax deductibility, the cost/benefit of certain equity hybrids changes significantly, and the issuers should be able to call them (or not replace them with hybrids when they have the right to call for other reasons). While this possibility raises a cloud over the permanence of the hybrid, the risk can be assessed through understanding the potential for tax-law changes. Indeed, we would not initially recognize equity content in hybrid issues that faced significant tax risk, given both the potential cost penalty and/or the incentive for the issuer to somehow get out of the security.
- Market disruption. See below.
- Credit quality improvement subsequent to the time of issuance that obviates the need for the hybrid to support rating. The potential measures of credit quality improvement are varied. Any rating upgrade above the rating level at the time of issuance would provide prima facie evidence that the security is no longer needed. Alternatively, we would be willing to consider approaches that relied on indicative financial ratios instead of ratings. Another acceptable indication, albeit indirect, would be the consent to terminate the covenant by holders of the majority amount of covered debt outstanding—excluding amounts held by the issuer or its affiliates.
- Rating-agency criteria change leading to a reduction in the equity content for the security originally issued. Some covenants call for replacement with whatever security would qualify at that time. But since it is impossible to predict in advance what, if anything, would qualify, it is unreasonable to expect replacement on such an open-ended basis. (This carve-out would have to exclude criteria refinements of an incremental or technical nature, since such changes would not justify the issuer's jettison of the hybrid.)

While we accept the aforementioned termination events in the RCC, if one of the termination events were to occur,

such that the provisions of the RCC were no longer binding, we would then cease to view the issue as warranting recognition of equity content, given the then lack of permanence. Where the provision is structured to allow the issuer to reelect the obligations of the RCC, and if it were to opt to do so, recognition of equity content could continue to be appropriate.

In countries where RCCs have no legal basis or are otherwise not practicable, such as under Japan's current legal framework, we would consider accepting a statement of intent in its place, providing such statement of intent was straightforward, visibly communicated to the market, was broadly consistent with the issuer's financial policy, and if the step-up was moderate and at least 10 years from the time of issuance. In Japan, the law requires that, for an agreement made for the benefit of a third party to be enforceable, the beneficiary must "express intent to enjoy such right." We believe requiring issuers to solicit such consent from bondholders would be cumbersome. Moreover, such consent would likely become ineffective once the bonds are traded or transferred to a new investor. Similarly we would consider accepting a nonbinding statement for any issuer with no eligible covered debt.

Issue Features: Market Disruption Events (MDEs)

The MDE concept initially arose in the context of mandatory alternative-payment mechanisms (APMs/ACSMs; see below). The MDE addressed the risk that a company faced legal obligations to pay with proceeds of common equity issuance, but was unable to execute its obligations due to market disruption. Scenarios such as the closure of financial markets after Sept. 11, 2001, were the focus of this concern. The MDE allowed the company to defer its obligations until the disruption passed.

In the context of RCCs, MDEs also provide flexibility in the event of such "force majeure" scenarios. If an issuer has redeemed an outstanding hybrid issue (or legally committed itself to redeem) in a way that requires replacement, it must be allowed to defer that replacement as long as there is no practicable possibility of doing so. It should go without saying that it is unacceptable for such provisions to effectively create an opportunity for an issuer, upon an MDE, to redeem the hybrid and completely negate the replacement obligation.

The definition of such disruption needs to be very clear and objective, and limited to scenarios that are remote. Poor economic conditions, depressed financial markets, distressed pricing for the company's securities, and so on do not fit the definition of an acceptable MDE as we conceive it.

Most issues with RCCs provide for the replacement securities to be issued before the call and before serving redemption notice to bondholders. The proceeds of the new securities are meant to be used to fund the call. Accordingly, in such cases, the MDE provisions are irrelevant.

Issue Features: Dividend Stoppers, Look-Backs, And Pushers

Many types of hybrid capital instruments include so-called dividend stoppers, whereby if there is an optional or mandatory deferral of dividends/interest on the hybrid issue, the company is prohibited from making payments on any *pari passu* or more junior issues—including making dividend payments on common stock—until the arrearage, if any, has been cured. We generally view such a stipulation as a neutral factor from a credit perspective. On the one hand, eliminating both the common dividend and the hybrid payment maximizes the overall cash conserved. On the other hand, the link between the two may increase the reluctance of the issuer to forgo paying on the hybrid. Indeed, in cases where shareholder expectations or tax considerations (for REITs) increase the reluctance to suspend

common dividends, omitting the dividend stopper could significantly increase the issuer's willingness to defer payments on the hybrid issue. This could enable a REIT's hybrid instrument to merit intermediate equity content, assuming other terms meet Standard & Poor's criteria. In general, the presence or absence of a common dividend stopper is not essential to our recognition of equity content.

Some instruments incorporate so-called look-backs, which we view as detrimental from a credit perspective. In these instruments, the right to optionally defer applies only after a period of no share repurchases or payment of common dividends. The main point of deferrable payment securities is to accommodate a company that has a crisis and needs to save cash. Look-backs constrain this flexibility, as a practical matter, if the company had recently paid a dividend or repurchased any stock.

The details of the look-back provision dictate the extent of the potential problem. For example, does even the repurchase of a trivial amount of stock in conjunction with an employee option plan violate the look-back? Is the look-back period a quarter? Six months? One year? How do the frequency and juxtaposition of common and preferred dividend payment dates affect the possible delay?

The existence of a look-back that could impose a delay of one or more years would disqualify a security for our "intermediate" equity content category. (In the case of hybrid issuers that are speculative grade, even a potential delay of six months would rule out "intermediate" equity treatment.) Importantly, even where a look-back period is shorter and does not in itself disqualify the security, the potential for delay is still problematic--and, in combination with other features of the security, can affect its equity content categorization.

With respect to mandatory-deferral instruments, look-backs (sometimes termed "pushers") undermine the nondiscretionary aspect of the deferral. The company can choose to short-circuit the deferral by paying a paltry common dividend, for example. Such issues would, therefore, never qualify for our "high" equity content category.

Issue Features: Alternative Payment Mechanisms/Alternative Coupon-Settlement Mechanisms (APM/ACSM)

Optional deferral

Certain hybrid capital instruments combine optional deferral with a requirement that the company, at some point following the initial deferral, issue common stock, more of the same hybrid issue, or some other hybrid security, and utilize the proceeds to make up the arrearage and resume payments. Such mechanisms are variously referred to as APMs or ACSMs. We believe such a requirement significantly undermines the value of the optional deferral provision. The prospect of having to sell even a small amount of additional securities at a point when their pricing would likely be depressed could well serve as a disincentive for the company to defer in the first place.

Therefore, when such a requirement becomes effective within five years of the initial deferral, we would generally view such an instrument as warranting "minimal" equity content under our framework. (The base five-year requirement has long been our standard for an interval when the company can reasonably be expected to effect a turnaround, if it is to do so. We would not be as concerned about a requirement to issue shares that only becomes effective beyond five years: Such a requirement is unlikely to be a significant consideration for management when first weighing the possibility of deferring.)

Nevertheless, we would make an exception--and view the issue as compatible with "intermediate" treatment,

depending on our holistic view of the instrument--if doubts about the company's willingness to defer were addressed by appropriately structured mandatory deferral triggers, thereby removing discretion from management (see below).

We would also make an exception where all three of the following conditions were met:

- Prior to five years, there is no requirement to issue additional securities unless hybrid payments are resumed. In this way, management retains some control of the timing of the capital raising.
- Before five years of deferral have elapsed, the additional common shares that are required to be issued to meet the dividend or interest requirement are limited to a relatively modest amount: for corporate and other unregulated issuers, no more than an aggregate of 2% of the total number of shares outstanding during the period the deferral continues. This mitigates concerns about dilution avoidance as a motive weighing on management. (Note: out-of-the money warrants to purchase common shares could be used as an alternative to directly issuing shares. This may be marginally more acceptable to management because the share price would have to appreciate before the warrants were exercised. Nevertheless, the same tight limit on the number of shares covered by the warrants would still be appropriate. In the case of certain regulated financial institutions, we have accepted what is sometimes a looser standard--warrants capped at 2% of market value, rather than 2% of shares outstanding.)
- The company has the option of issuing more of the hybrid or of another hybrid, and if it does so, the company is required to issue no more than 25% of the initial principal amount. This provides further assurance about dilution concerns, since the company will have an alternative that could well be seen as more attractive than common stock issuance. Moreover, there will be protection against the company's being burdened by a substantial amount of new obligations with uneconomic terms.

Direct allocation of additional hybrid securities, commonly referred to as "PIK payment," to the initial hybrid investors (requiring no new market issuance) would be even less problematic, at least when the basis of valuation is the nominal value as opposed to the market value.

Mandatory deferral

In certain instruments, an APM/ACSM-type mechanism is coupled with a mandatory deferral provision. For example, some issues define mandatory deferral triggers in terms of financial tests, such as the following:

- Cumulative consolidated net income for the two half-year periods ending six months prior to the coupon date must be less than zero; and
- Adjusted consolidated shareholders' funds must decline by 10% or more during the four half-year periods ending six months prior to the coupon date; and
- Six months after the prior two triggers have been activated, total adjusted capital (including mandatory convertibles and/or hybrid securities) must have declined by more than 10% during the preceding five half-year periods.

However, with the breach of these conditions, the issuer has the option to issue common stock or other specified securities before the payment date--in sufficient amount to fund the payment owed, or, in other cases, in sufficient amount to offset the decline in capital--and thereby avoid the payment deferral. We believe such an optional capital-raising feature undermines some of the equity benefit of the mandatory deferral provision. We see a risk that in cases short of financial distress, companies might succumb to investor pressure to utilize the capital-raising option--even if, from a credit perspective, the company's capital markets access would best be utilized for other purposes, or conserved. Lest there be any doubt, some companies have actually made explicit "best endeavors undertakings," in which they state in the issue offering materials that they would always undertake to raise fresh

capital as needed to avoid a deferral. In other instruments, there is not an option, but rather a contractual requirement to undertake the sale of common stock or other equity-like issues immediately upon the breach of defined financial tests.

We have accepted such provisions as consistent with "intermediate" equity content, but not with "high" equity content. To warrant the "high" equity content designation, no forced or "best efforts"—based (or even optional) settlement of mandatorily deferred amounts must be allowed to take place until the earlier of five years from the initially scheduled payment date or the point at which the breach is cured. For both "intermediate" equity content issues, there must be a prohibition against repurchasing the settlement currency (other than payment-in-kind at face value) extending at least 12 months from the cure date. Otherwise, through share repurchases, the issuer could well thwart the cash conservation on which our determination of equity content relies. (See section "Equity Content Categories.")

Issue Features: Conversion Into Common Stock And Share Settlement

We do not recognize equity content, per se, for a provision whereby an issue can convert into common stock at some premium, at the option of the investor. While, historically, many such issues have ultimately converted, we view this feature as a positive contingency. That is, if the company fares well and this is reflected in significant share price appreciation, then conversion would likely occur. (In theory, if the share price had appreciated well above the conversion price, there was only a short time remaining before the issuer could call the issue and thereby force conversion, and we were confident the issuer intended to do just that, we could then view the situation as warranting recognition of some amount of equity content. However, we have been reluctant to formalize this approach, given the rapidity with which share price volatility can erase even seemingly unassailable stock price gains.) On the other hand, if the issuer is struggling, this is highly likely to be reflected in a depressed share price, making the conversion uneconomic for investors. Of course, investors value the conversion option, and this should translate into lower interest cost for the issuer—something beneficial for the issuer, regardless of whether the issue ultimately converts. And if the conversion feature is combined with other features that qualify the instrument for "intermediate" or "high" equity content, the conversion feature certainly does not detract from equity content, in our view.

Likewise, we don't recognize equity content for a provision whereby the company has the option to repay an issue upon redemption or maturity by issuing common shares to the holders at the then-share price, instead of using cash. Although such a provision may save the company an underwriting fee, our assumption is that it could always choose to finance the maturity with a separate common stock offering, if inclined to issue common stock. Of course, if the local equity market were relatively underdeveloped or dormant, then such a provision would perhaps deserve more recognition.

Although leaving it up to the company to determine how to settle a convertible instrument does not necessarily detract from credit quality, if investors' exercise of an optional conversion provision means the issuer is required to repay the principal amount in cash—with only the appreciation settled in shares—we view that as the equivalent of a put. The instrument is more debt-like than equity-like. Share appreciation ordinarily being correlated with good performance by the company does not mean that maintaining capital adequacy is irrelevant to the company's credit profile.

As discussed above, we view mandatory conversion into common stock in a very different light. If the issuer's share

price at the outset is used as a floor to limit the extent of shareholder dilution, if the ultimate conversion is no more than three years from the time of issuance in the case of investment-grade issuers (two years for issuers with issuer credit ratings in the 'BB' category; one year for issuers with issuer credit ratings in the 'B' category), and if various other conditions are met, an issue with such a feature can achieve "high" equity content. Otherwise, such issues are generally viewed as debt-like, given the concern that the shares issued would be repurchased.

Some instruments provide for a change in the conversion or exchange ratio if the company issues common shares within a specified time period at a lower price. (In lieu of changing the conversion ratio, some issues call for a cash payment to the hybrid holders.) This type of "make-whole" feature increases the aversion to issue more capital when it might otherwise be prudent and may burden the issuer with more dilution.

We do not consider an issue that converts or exchanges into common stock of a company other than the issuer as having equity content. Rather, we treat such an issue as an asset monetization, in that the issuer exchanges one asset (its equity stake in the third party) for another--the proceeds of the issue--albeit with a significant time delay between the latter and the former. The overall impact of the transaction can be positive, neutral, or negative, depending on such factors as the value realized for the equity stake relative to our expectations, our perception of the risks related to the equity stake, the cost of the financing (taking account of tax considerations), and the use of proceeds.

Rating The Issue

In the corporate and financial institutions sectors, we assign two types of credit ratings--one to issuers and the other to individual issues. The first type is called variously an issuer credit rating (ICR), counterparty credit rating, or corporate credit rating. It is our current opinion of an issuer's ability and willingness to meet its financial commitments on a timely basis. In contrast, while issue ratings address timeliness, they also address the potential for recovery of principal in the event of a bankruptcy or liquidation of the issuer--that is, the ranking of the issue.

Most types of hybrid capital instruments afford equity benefit to issuers by having ongoing payment requirements that are more flexible than interest payments associated with conventional debt, and by being contractually subordinated to such debt. Obviously, these characteristics make the instruments riskier for investors than debt. In assigning issue ratings to hybrid capital issues, we seek to assess the incremental risks associated with the issue in terms of payment timeliness and principal recovery compared to the ICR and to nondeferrable debt. We reflect these risks in the ratings of hybrid capital issues by assigning them ratings that are "notched down" from the ICR. Owing to the unpredictable nature of some of the risks to which hybrid capital issue ratings are subject, the ratings are potentially more volatile than the ratings on conventional debt issues.

We utilize a common framework across our corporate and financial institutions practices and across regions. However, the rating dynamics can work differently. For example, in the banking sector, most instances of companies deferring payments on trust preferred have reflected the intervention of regulators. In theory, given banks' high funding needs and the importance of maintaining confidence in the specific bank and the entire financial sector, the regulatory order to defer may occur when the company's credit quality is still stronger than the point where most corporates would consider such an action. So, in certain circumstances, where a bank is experiencing deteriorating credit quality, we may decide to widen the gap between the ICR and hybrid capital issue rating at an earlier point than for a corporate on a similar trajectory.

We also utilize this framework across the rating spectrum. In the case of highly rated issuers, the prospect of financial distress is, by definition, extremely distant. Still, issue ratings reflect our relative assessment of how different instruments in the issuer's capital structure might fare, should the downside case materialize. Some highly rated issuers have argued that in their particular cases, the risk of deferral is so remote that it should not be reflected in a lower issue rating than for subordinated debt. If we accepted this argument, we would not notch down for deferral risk, but we would also see little basis for recognizing equity content in the issue.

Rating The Issue: Subordination

Subordination adversely affects the ultimate recovery prospects of subordinated obligation holders in a bankruptcy, since claims of priority creditors must be satisfied first. For issuers with investment-grade ICRs, we assign a rating one notch below the ICR for issues that are subordinated (but not deferrable). We typically rate subordinated instruments with deferrable coupons two notches below the ICR when it is investment grade (see details in next section). We do not distinguish in the notching between gradations of subordination: Junior subordinated issues and senior subordinated issues are rated the same. Experience has shown that, in bankruptcy, ultimate recoveries for different classes of subordinated instruments tend to be similar--and poor. (Likewise, other things being equal, we don't distinguish between hybrid capital issues that are cumulative and those that are noncumulative, since there is little reason to suppose recovery prospects of the two are materially different.)

Historically, in the case of issuers with speculative-grade ICRs, we automatically rated the issue two notches below the ICR just to reflect subordination (apart from the incremental notching for deferral risk). Under the updated Issue Rating and Recovery Analytics framework published on May 30, 2007 ("Recovery Analytics Update: Enhanced Recovery Scale And Issue Ratings Framework"), hybrid capital issues of speculative-grade issuers (except banks) can be notched down based on issuer-specific and instrument-specific recovery prospects in countries where we have adopted this issue rating approach and extended it for hybrid capital instruments. (Elsewhere, the two-notch differential for subordination remains automatic.) However, as a practical matter, this makes little difference to our rating conclusions: We expect the vast majority of nondeferrable subordinated instruments of speculative-grade issuers to receive a recovery rating of '6' on the revised scale (0%-10% recovery of principal post default), which would imply the same two-notch differential from the ICR that these instruments would otherwise be assigned just for subordination.

When a holding company issues the hybrid capital instrument, as is common for U.S. financial institutions, the notching is relative to our ICR on the holding company, which is typically lower than the ICR on the main operating unit.

Rating The Issue: Deferral

Payment risk can be heightened in the case of hybrid capital issues due to:

- The right of optional deferral, where management has the option under the terms of the instrument to suspend or cancel distributions without triggering a default (see section "Issue Features: Optional Deferral");
- Mandatory deferral, where, with the breaching of one or more predetermined triggers, the issuer is required to suspend payments (see section "Issue Features: Mandatory Deferral"); and
- Regulators' ability, in certain cases, to order companies to defer or cancel payments.

Our objective is to fully reflect payment deferral risk in hybrid capital issue ratings, whatever the potential driver of the deferral. As deferral becomes an increasingly likely prospect, the gap between the ICR and the hybrid capital instrument would widen to reflect the heightened risk of deferral.

Optional deferral

We assume that issuers will be loath to exercise their right of optional deferral, given the negative reaction this evokes among investors and hence the ramifications it can have for the issuer's future access to capital markets. Deferral risk is heightened when the issuer faces increased prospects of financial distress, such that management's reluctance to defer may ultimately be overcome in favor of the need to conserve cash. As referred to above, the "pressure points" may differ for different types of issuers, meaning the consideration of deferral may come at earlier or later stages in the course of credit deterioration. One danger sign is when a company curtails or eliminates its dividend on common stock: This is sometimes a precursor to a deferral on equity hybrids. (Most equity hybrids have a "dividend stopper" that prevents the company from making any distributions to its common stockholders while it is deferring distributions on the hybrid; see section "Issue Features: Dividend Stoppers, Lookbacks, And Pushers.")

If a corporate has an unusually large proportion of equity hybrids in its capitalization, it may have an added incentive to defer, due to the significance of the cash flow savings that would result and perhaps pressure from senior lenders. However, in the case of large, regulated financial institutions, we believe this could cut both ways: the greater the amount of outstanding hybrids, the greater the potential for a systemic disruption or a backlash in the capital markets. This could give the issuer more of an incentive to continue payments under all circumstances.

Mandatory deferral

Triggers for mandatory deferral vary. Some consist of earnings-, cash flow-, or capitalization-based financial ratio tests; others refer to the issuer's incurrence of a loss during a defined period or the failure to meet specified minimum regulatory capital requirements. Still others tie the payment of the distribution on the equity hybrid directly to the company's payment of the common stock dividend.

Obviously, the payment deferral risk for the hybrid capital issue investor is higher when it would take only a minor and temporary shortfall in profitability to cause the deferral, for example. On the other hand, if it would take circumstances so dire for the trigger to be breached that the issuer would likely be on the brink of bankruptcy, then the payment risks for the hybrid capital issue investor would not be materially different than they would be for debt holders.

Triggers for mandatory deferral may be included in the terms of the hybrid capital issue. Alternatively, they may be included in the terms of other financing agreements or indentures of the issuer—for example, in the form of a financial covenant under a committed credit facility prohibiting the payment of dividends on all common and preferred stock if certain tests are breached. In our surveillance of hybrid capital issue ratings, we are alert to any changes in the issuer's financing agreements or indentures that could bear on its ability to make payments on a hybrid issue.

Regulatory deferral

In some regulated financial services sectors, regulators have the authority to direct companies to defer payments on equity hybrids based on the regulators' own assessment of what is prudent. In certain cases, banks have been ordered to defer even when they met all regulatory capital requirements (for example, Riggs National Corp., a bank holding company that was required to defer payments on trust-preferred securities in December 2004). Assessing the risk of deferral in the case of a regulated company requires careful consideration of sector- and country-specific

factors, including precedents of deferral ordered by the regulatory body in question. Especially important is the identification of financial measures to which the regulator is particularly sensitive.

The authority and intent of financial regulators to order deferral of payments in certain circumstances--whether or not clearly defined--means that most hybrid capital securities of regulated financial institutions can be viewed as having de facto mandatory deferral. Regulated financial institutions structure hybrids according to rules established by national regulators for regulatory capital measures. This includes the definitions of the capital ratios or performance measures that would trigger payment deferral if breached. The triggers for deferral--typically the regulatory minimum capital ratio for banks and insurers--are usually made explicit in the covenants of the hybrid security. Less often, the trigger is not explicit in the document but is understood by both issuer and regulator.

Rating The Issue: Factoring Payment Risk Into Issue Ratings

In reflecting payment/deferral risk in hybrid capital issue ratings, we evaluate the different sources of deferral risk that are present and seek to assess their combined significance. Where deferral is possible but we believe the prospect of a deferral is relatively remote for the foreseeable future, we take one notch from the ICR in setting the issue rating, whether the ICR is investment grade or speculative grade (subordination will increase the notching, as explained in the prior section). A one-notch differential is the typical treatment for issues that have optional deferral alone. For example, the subordinated and optionally deferrable issue of an issuer rated 'BBB+' would generally be rated 'BBB-'--one notch for subordination and one notch for payment deferral risk. If the issue were senior and deferrable (a rare but not unheard of combination), the issue would be rated 'BBB'. We take the same approach even at the highest rating levels. (Note that a subordinated and deferrable issue of a 'AAA' rated issuer is typically rated 'AA'. Because there is no 'AAA-' rating in our rating scale, 'AA' is two notches below 'AAA'.)

When we have heightened concerns that the issuer may defer--whether due to the exercise of its right to defer optionally, the breaching of a mandatory deferral trigger, or the exercise of a regulator's prerogatives--we increase the gap between the ICR and the issue rating. We do not impose any arbitrary limit on the size of the gap. So, in an extreme example, if the ICR of an issuer were investment grade, but we believed that there was a substantial risk that the payment on the issuer's trust-preferred securities could be deferred within a few quarters, the issue would have a low speculative-grade rating. On the other hand, if the issuer faced the immediate prospect of financial distress, yet we believed management remained determined--for whatever reason--not to exercise the right to optionally defer, we could, at least in theory, narrow the notching for deferral risk.

Combinations of different forms of deferral may or may not increase deferral risk. For example, if an issue has mandatory and optional deferability, and the mandatory triggers are defined so that they could be breached without there necessarily having been fundamental erosion in the issuer's credit quality, then the risks to investors would be greater than if there were optional deferability alone. The same would be true if the triggers were more reflective of fundamental credit quality, but could be breached before the point where the issuer would contemplate optional deferral. In either of these cases, a lower issue rating would be warranted than if there were optional deferability alone. In these circumstances we generally add to the gap between the issue rating and the issuer credit rating. On the other hand, if the mandatory trigger were sufficiently remote that we believed it would be unlikely to be breached before the company would otherwise have optionally deferred, then we would not take away additional notches for the mandatory deferability compared to what would be appropriate for the optional deferability alone.

For example, MetLife Inc. issued \$2.1 billion of noncumulative perpetual preferred in 2005 that was rated 'BBB',

three notches below the ICR. The issue has both optional and mandatory deferral. The mandatory deferral is breached by the triggering of either of the following:

- Consolidated net income during any consecutive four quarters is zero or less AND shareholders' equity declines 10% or more during the most recent eight quarters AND MetLife cannot reduce the decline in shareholders' equity within the subsequent two quarters to less than the 10% threshold through equity issuance; or
- The risk-based capital ratio of Metlife's largest U.S. life insurance subsidiaries falls below 175% of the company action level.

Analytically, it was deemed reasonably possible, while not expected, that MetLife could have an atypical earnings event or a decline in its GAAP equity that would cause the first trigger to be breached, even while the company remained financially strong. More importantly, the second trigger relates only to measures of solvency for a portion of Metlife's U.S. life insurance operations, while the ICR reflects the diversity afforded by the company's U.S. property and casualty operations and its growing presence outside the U.S.

We have rated a number of mandatory deferrable issues where, as in the first trigger in the MetLife transaction, triggers are defined to give the issuer the chance to make up for a decline in shareholders' equity by issuing new equity. Some issuers of these instruments have argued that this completely mitigates mandatory deferral risk, since it would always be their company's intention to take whatever actions were necessary to forestall the breach of the trigger, barring cases where they would want to exercise the right to optionally defer. Some issuers have even put such assertions in the form of "best endeavors" undertakings included in offering documents or other filings. We must be skeptical about such assertions, just given the remoteness of the prospect of deferral, and the adverse changes the issuers might have undergone by the time that point was reached. However, if we were convinced that the company, apart from situations where it would optionally defer, would always avail itself of whatever capital markets access it had to avoid a breach of the mandatory trigger, then we would not notch down incrementally for the mandatory deferral risk; rather, we would only notch once, for the risk of optional deferral. However, there would then be little basis for ascribing any extra value in terms of equity content (beyond that warranted due to the optional deferral feature alone) to the mandatory deferral feature.

If a mandatory deferral trigger is defined in such a manner that we believed the trigger would always be breached before the company would otherwise consider deferring optionally, and if the company is legally required to issue common shares immediately upon the breach of the trigger, then we could conclude that deferral risk had been effectively eliminated, and not notch down for deferral risk.

In the case of regulated financial institutions, explicit mandatory deferral triggers do not add to deferral risk stemming from regulation if--as is generally the case--the triggers just replicate the capital standards that a regulator applies in determining whether to order a deferral. Also, in the case of banks, we consider it particularly unlikely that a company would exercise unilaterally its right to defer optionally. Moreover, we would generally presume that bank regulators would act preemptively to force banks to raise capital (or divest some activities) to prevent regulatory capital guidelines from being breached. Thus, in most instances we take away only one notch for deferral risk in rating hybrid capital issues of investment-grade banks, even where there is a combination of optional deferral and regulatory deferral risk.

For example, certain Spanish and Australian banks' hybrid capital issues contain relatively narrow earnings tests, which link the payment of a coupon to the existence of profits in the previous fiscal year. However, we do not

believe that the local regulators will apply these tests mechanistically. Rather, we expect there to be situations where the issuer reports a loss, but where the regulator still allows the issuer to pay a coupon. (The terms and conditions allow this flexibility.) We believe that the likelihood of regulatory intervention will depend on the circumstances that have given rise to the reported loss and that the probability of regulatory intervention on these hybrids is not materially affected by the existence of the tests. Yet, as indicated above, we would notch to a greater extent in cases we view as exceptional. Examples would be where we perceive that the likelihood of a reported loss has increased materially, or if we come to believe that the regulatory approach to the narrow earnings test would be more mechanistic.

Rating The Issue: Default And Distress

On July 23, 2008, we expanded the definition of our 'C' long-term issue credit rating to include issues on which cash coupon payments have been deferred, eliminated, or in some cases, paid in-kind, as permitted under the terms of the issue. The definition expansion only affects the rating that we assign to a hybrid capital issue when the cash coupon on the instrument is no longer being paid, but the issuer is not bankrupt or insolvent and our credit rating [ICR] on the company is not 'D', 'SD', or 'R'. We will generally continue to assign a 'D' rating to issues that are in payment default, to issues that have been subject to a distressed exchange, or when the issuer has filed for bankruptcy or taken similar action.

Some issues with mandatory deferability have clauses that require the issuer to undertake the sale of common or preferred stock and utilize the proceeds to make the distribution. If the payment can be made on a timely basis, we would not view this as a default. In such circumstances, we believe a grace period of up to 30 calendar days is appropriate—equivalent to the grace period commonly found in conventional debt issues. However, there is the risk that the company would be unable to complete the required share issuance, depending on the company's circumstances and conditions in the capital markets. So far, we have not notched down a second notch for mandatory deferability in cases where "best efforts" share issuance (or issuance of other securities) would then be immediately required. However, we could reassess this approach as we gain more insight into the practicability of this requirement. In any event, we will notch down when we believe that under the most likely scenario where a deferral could occur, the issuer's financial strength and share price would have declined so precipitously that the issuer's ability to complete even a modest-size common stock issuance (or issuance of other securities) could be dubious.

In theory, if we were convinced that the deferral of payments was highly unlikely to occur absent a default by the company on all of its obligations and/or a bankruptcy filing, then we would not notch at all for deferral risk, only for subordination.

Rating The Issue : Government Support

The policy for rating the hybrid equity securities of government-supported entities deserves particular mention. When Standard & Poor's expects the government to support a government-supported entity's debt obligations but has less confidence that the support would be extended to the government-supported entity's equity hybrids, then the base for the notching of the equity hybrid issue rating is not just the ICR (which factors in the imputed government support). The issuer's stand-alone profile (absent government support factors, including extraordinary intervention and rescue) is also a relevant rating factor in these situations.

This indeed was the case in Japan in the late 1990s and early in the current decade, when Japan's government provided massive support to the private banking sector to maintain confidence and prevent the failures of many institutions. The government support did not extend to all hybrid capital securities of Japanese banking groups during that period, however, and some of the bank hybrids, notably the operating company (opco) preferred securities, deferred payments. Two prominent cases of deferral were those of Resona Bank and UFJ Bank (through opco Tokai Preferred Capital Co.). During this period, we widened the notching of hybrid equity securities, including opco preferred securities, up to six notches below the ICR of the issuing groups. In the cases cited, the banks avoided liquidity problems after the payment deferrals: UFJ was merged with higher-rated Mitsubishi Tokyo Financial Group, and Resona Bank was under the direct control of the government.

A more recent example is the U.K. bank Northern Rock PLC, which has received significant liquidity support from the U.K. government since September 2007 and was nationalized in February 2008. The liquidity support includes a government guarantee arrangement that covers Northern Rock's deposits and senior unsecured wholesale funding, but explicitly excludes its subordinated capital issues. Northern Rock's preference shares (a Tier 1 capital instrument) were included within the nationalization, and ownership of them has consequently transferred to the government, with compensation to be determined by an independent valuer. These preference shares are now rated 'D' to reflect the impact on the prenationalization investors, who have not, to date, received any compensation for the change in ownership. Northern Rock's two other Tier 1 issues remain with their existing owners and are up-to-date with coupon payments.

Our approach would be similar in the case of an entity whose ICR benefited from support of a strong parent, but where we doubted whether parental support would be extended to the subsidiary's hybrid capital.

Rating The Issue: The Rating Approach To PIK Debt

PIK debt can pay interest in cash or in-kind in certain circumstances. These obligations are typically issued by speculative-grade corporates. PIK means that the investor, in lieu of cash, receives more of the same note, or that the note's principal is increased. There are several forms of PIK debt. In their simplest form, PIK notes pay interest in kind from the outset and for the life of the instrument. These are similar to zero-coupon bonds. Although such issues can help highly leveraged companies conserve cash, the generally steep interest rate and rapid accretion give the issuer a strong incentive to refinance the issue. Our ratings for such issues are not notched down to reflect default risk to a greater extent than for ordinary debt issues of the company—only to reflect subordination (if applicable).

Some PIK debt initially requires cash interest payments, but gives the issuer the option of paying in-kind later. Such an issue is analogous to deferrable payment equity hybrid securities. Although the PIK option is contractually permitted, the expectation is that the company will pay cash unless it faces severe financial distress. Accordingly, we reflect that risk with additional notching (for deferral risk) at the time of issuance.

Toggle notes are somewhat different from the two types described above, in that they are designed to facilitate switching back and forth between cash payment and PIK distributions, according to the preferences of the issuer. (In some cases mixed cash/PIK payments are also permitted.) When the PIK option is utilized, there is a bump-up in the interest rate, intended to make the investor relatively indifferent. With appropriate disclosure at the time of issuance, the investor knows to expect a toggling cash/PIK payment pattern. The fact that the issuer is noninvestment grade also helps to support this expectation. Where we are satisfied that disclosures are sufficient to give investors the expectation of receiving PIK at various stages of the security's life, and where the issuer is noninvestment grade at

the time of issuance, we will not treat utilization of the PIK option as warranting the 'C' rating. In other words, we do not treat it as a payment deferral and we do not notch down for this PIK feature. For other forms of PIK debt, we believe that a shift from paying cash to paying in-kind indicates severe financial distress and warrants a 'C' rating. Previously, we assigned a 'D' to the issue in these situations.

Toggle notes may be senior, and even secured. We take account of this in assessing recovery prospects. In analyzing recovery prospects, however, we expect the PIK option would likely be utilized prior to a bankruptcy, and that this would thus translate into higher debt at time of default—and so must be added when calculating recoveries.

All types of PIK notes provide a measure of flexibility that is a positive consideration with respect to issuer liquidity. We do not formally recognize equity content in toggle notes, though, given the incentive to pay in cash, and the relatively short maturities and senior ranking of the instruments—at least as seen in the issues done to date.

Rating The Issue: Equity Unit Ratings

Companies continue to issue mandatorily convertible debt, structured as a unit that bundles two pieces:

- A corporate debt (or preferred stock) security; and
- A forward contract that requires the investor to purchase—and the company to sell—the company's common shares at a predetermined price (or formula).

Standard & Poor's may be asked to rate the underlying debt (or preferred) piece—or the unit. Such debt and/or a unit incorporates substantial equity risk.

The investor winds up with common stock—if not via conversion, strictly speaking—by fulfilling the contract obligation. Sometimes the debt is remarketed, but the company gets the new money, while unit holders still receive the stock to satisfy the terms of the equity contract.

The ratings we assign do not opine on the totality of the equity risk, but neither do we ignore the equity nature of these instruments, as explained below.

Under the current policy, the rating of the debt and/or unit is normally two notches below our corporate rating on investment-grade companies, or three notches in the case of speculative-grade companies. This level equates to the ordinary rating of a company's preferred stock, which is also an equity security of the company (although the risks incorporated in preferred ratings are, of course, somewhat different). Given the market risk that the investor takes, the assigned rating could arguably be lower; however, sizing the risk of share price changes is beyond the scope of rating analysis.

Thus, the rating on the unit applies to the company's obligation to service the debt component, as well as its obligation to issue common shares under the forward contract. The rating does not pertain to the safety of principal or the units' value. The units' ultimate value is a function of the market value of the company's common shares, and is not addressed by our rating.

Note that we apply a different approach where the purchase contract relates to shares of another company that are owned by the issuer, rather than the issuer's own common shares. In line with our market-linked bond policies, the rating on such exchangeable debt or preferred will be that of the issuer—even if the issuer is disposing of shares of a company with a very different credit profile. And, if the obligation is senior, it will carry the same senior debt rating

as the issuer.

How Have Hybrid Capital Issues Performed?

Apart from the need to do so for our normal rating surveillance purposes, we monitor closely the deferral experience of rated hybrid capital issues with a view to validating our analytical perspective on hybrid capital issues. Among the characteristics of such issues, the flexibility of payments (i.e., the contractually permitted ability to defer interest or dividend payments) is generally the key to our recognition of equity content. Thus, it is important to look at the extent to which companies under stress actually avail themselves of the option to defer payments. We also seek validation of our notching policy, since, in setting the rating on hybrid issues, we notch down more than with conventional subordinated debt, under the assumption that there is incrementally greater payment risk. Under our rating definitions, if a payment is deferred or omitted, the issue rating would be lowered to 'C' (assuming the issuer is not bankrupt or insolvent).

Our findings have been mixed. Here, we consider the experience from 1995 to the present, taking account of all rated hybrid capital issues, in all regions and sectors, and including most types of conventional preferred stock, since they have deferral features similar to those in the newer forms of hybrid capital.

Corporates have accounted for the dominant share of all cases where the hybrid capital issue rating was lowered to 'C' (or the then-equivalent). We have identified 101 corporate groups that deferred or defaulted on 179 separate rated issues. The vast majority of the issuers—95—have been U.S. companies, and the majority of these issuers were speculative grade when the hybrid issue rating was first assigned. Only nine issuers deferred when their issuer credit ratings were higher than the 'B' category (this excludes Fannie Mae and Freddie Mac, which did not have ICRs). In 49 cases, the issuers never deferred in advance of a bankruptcy filing or default on conventional debt. In nine cases where issuers went bankrupt or defaulted on conventional debt, they deferred hybrid payments one year or more before this occurred. In 21 of the 101 cases, the issuers deferred but did not subsequently file for bankruptcy or default on conventional debt—at least as of yet.

We have noted 14 instances of insurance companies that deferred or defaulted on issues—all but one U.S.-based. In eight of the cases—including, most notably, Consec Inc.—the default occurred effectively concurrent with either a bankruptcy filing by the issuer or with the main operating units being placed under regulatory supervision. In five of the other six cases (Lumbermens Mutual Casualty Co., Southwestern Life Holdings Inc., Lasalle Re Holdings Ltd., Gerling Global Finance Alpha B.V., and Scottish Re Group Ltd., which is currently deferring), deferral commenced before the issuer ceased ongoing operations or filed for bankruptcy. In some of these cases, the holding companies' hybrids defaulted, whereas the operating companies did not. This shows that the hybrids provided a degree of protection to the operating companies. In another current example, Syncora Holdings Ltd., formerly Security Capital Assurance Ltd., deferred on its series A perpetual noncumulative preference shares: it remains current on its debt obligations. Many Japanese insurers maintained payments on their hybrids through periods of stress. One insurer, Asahi Mutual Life, deferred payment on its unrated "kikin" hybrids in 2003, while remaining current on its senior financial obligations.

In financial institutions (excluding insurance), we have observed 13 examples of deferral or default on rated hybrid capital issuers. Four were U.S. finance companies: Dynex Capital Corp. deferred for an extended period and never defaulted on conventional debt, FINOVA Capital Corp. and New Century Financial Corp. filed for bankruptcy, not having previously deferred, and Thornburg Mortgage, despite modifying the terms of its hybrid, continues to remain

current on its conventional debt. Fannie Mae and Freddie Mac, government-related entities that the U.S. Treasury recently took into conservatorship, accounted for two notable instances. Payments were halted on a combined 38 hybrid issues (\$36 billion). We also identified seven instances of deferral at banking groups—two Japanese (Resona Bank Ltd. and UFJ Bank Ltd.), one Thai (TMB Bank Public Co. Ltd.), three U.S. (Bay View Capital Corp., Riggs National Corp., and IndyMac Bank) and one European (Northern Rock plc). Interestingly, in only one of those seven—IndyMac—was there a default on other obligations following deferral on hybrid securities. The case of Riggs is noteworthy in that the company was not in immediate danger of violating regulatory capital standards. Rather, the company was mired in scandal, and the Federal Reserve exercised its broad authority to intervene in an institution it viewed as troubled.

Also noteworthy is Northern Rock plc. Its preference shares were included in the February 2008 nationalization of the bank, which meant that ownership mandatorily passed to the U.K. government from the investors. To date, the investors have not received any compensation. Our rating on this issue is 'D', not the 'C' rating we typically apply where interest is deferred as permitted in the terms of the agreement. This is because of the forced transfer of the preference shares to the U.K. government. We believe that any compensation to the original investors will be limited because it will be based on the estimated worth of the preference shares if Northern Rock had not been supported by the U.K. authorities. On July 4, 2008, Northern Rock announced that it will not declare or pay a dividend on the noncumulative preference shares until further notice, and the annual coupon was not paid on that date. Payments on debt have continued without interruption.

Among unrated U.S. bank holding companies, City Holding Co. deferred payments on its preferred shares in July 2001 and resumed in July 2002. Smaller unrated institutions are exhibiting an uptick in hybrid deferrals. We are aware of cases of unrated hybrids of German banks that deferred payments—e.g., certain hybrid securities of Allgemeine Hypothekbank Rheinboden AG (now named Correal), Westdeutsche Landesbank, and Sachsen LB.

In interpreting financial institutions' results during the past decade, it is important to keep in mind that senior debt performed very well during 1995-2006 (and in 2007, too, excluding unregulated U.S. finance companies). Indeed, in mature markets, no regulated banks' rated senior debt defaulted during this time.

We have pondered why companies under pressure haven't been more proactive in utilizing the deferral option under outstanding hybrid capital issues. We believe it is most likely due to some combination of the following factors:

- The decline in the company's fortunes was too rapid for deferral to be possible. Examples of this include PG&E, Enron, Parmalat, and more recently, New Century.
- Management might have been too concerned about the "headline risk" associated with deferring, particularly as it could affect its ability to maintain capital markets access.
- The company might not have had enough hybrid capital outstanding for the potential cash-flow savings resulting from a deferral to be meaningful.
- Management was unrealistic in its assessment of its financial condition.

We believe it is unwise to read too much into our historical observations, given limitations of the data and the uptick of deferrals we are seeing in the current environment. While past utilization of the deferral option is less frequent than we might have expected, companies are loath to curtail or eliminate even their common dividends for many of the same reasons cited above—and the equity-like features of common stock set the standard against which we assess hybrid capital instruments. Perhaps future experiences will be different, given the representations that have

been made about the equity benefits of the new generation of hybrids. In the sizable area of hybrid capital of regulated financial institutions, the widespread tendency for bank regulators to favor market discipline may lead to a higher incidence of payment deferral during the next decade compared to the 1995-2006 period. One conclusion we draw is that the deferral feature's value is more tangible in the regulated context and/or where there are mandatory triggers. We expect a higher incidence of coupon deferrals and suspensions on hybrid securities of regulated financial services companies in the future, as the amount of issuance grows. We will continue to track the performance of hybrid capital issues in all sectors to help us gauge the appropriateness of our conclusions regarding equity content and payment risk.

Appendix

Table 5

Essential Features Required For Equity Content				
	Intermediate-Adequate	Intermediate-Strong	High	High
Interest deferral	Optional – Five years unfettered with default no earlier than five years	Optional – Five years unfettered with default at no earlier than 10 years Or - Mandatory deferral with moderately tight triggers	Mandatory deferral with tight triggers	
Term - capital permanence	20 years or more remaining to the "effective maturity"			
Term - refinance risk	Where an incentive to redeem early exists, there must be both (1) a replacement provision or equivalent regulatory oversight, and (2) any incentive (or penalty if not redeemed) must not be excessive.			
Subordination	Subordinated			
Mandatory conversion				Mandatory conversion to common stock within three years, with the conversion price not lower than initial share price.

*Refer to table below for more detailed criteria relating to "effective maturities".

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Table 6

Provisions In Hybrid Instruments Viewed As The Equivalent Of Maturity

Hybrid equity content treatment in our ratios ends when less than 20 years remain until the "effective maturity." At that point it is treated as debt for ratio purposes, with the benefits incorporated qualitatively in our analysis. This table summarizes which maturity-like provisions are viewed as an "effective maturity."

	Call (with no step-up)	Call with moderate step up or equivalent* (For investment-grade issuers 26 bps-100 bps is viewed as moderate. "Moderate" can vary depending on local interest rates.)		Scheduled maturity (co. is required to make best efforts to redeem)	Final maturity (nonpayment upon maturity is a default)
Standard & Poor's approach	Not viewed as an effective maturity, unless the call is within five years of the issuance date.	For unregulated issuers ^{**} : This is viewed as an effective maturity unless there is a replacement capital covenant (RCC). (The expiration date of the RCC would be viewed as an effective maturity).	For regulated issuers: ^{***} This is not viewed as an effective maturity (and no RCC is needed) because the regulator ensures replacement where appropriate. For a step-up with a call before year 10 (even where the regulator accepts that), we require a legally binding replacement covenant.	Always viewed as an effective maturity	Always viewed as an effective maturity
Rationale	Issuer calls are standard in almost all long-term instruments and there is no obligation to redeem that inflicts costs (the market does not assume it will be called, so there is limited headline risk if it is not called). A call before five years is unusual and we take it to be an indication of a lack of permanence, even with a RCC.	The step-up presents an incentive to call and a penalty rate if not called, which undermines permanence. Given that the potential increase in cost is limited to a moderate step-up, the RCC is adequate to offset concerns about permanence. (In contrast, an RCC does not offset the lack of permanence in a short-dated issue.)	For regulated issuers, the regulatory oversight is viewed as adequate to ensure it will be replaced when its benefits are needed. However, where the call is before year 10, we require the even stronger RCC, as regulatory oversight doesn't ensure permanence to the extent an RCC does.	Unless there is a market disruption event, the company is obligated to redeem, which can impose onerous costs on the issuer. This is therefore viewed as an effective maturity.	The instrument must be repaid at this time or else an event of default is triggered.
How the company is likely to react under varying circumstances					
Doing well	Might or might not call, depending on its view of future interest rates	Will redeem	Will redeem	Will redeem	Will redeem
Under moderate stress	Won't retire the instrument (it's equity-like when needed)	Will redeem	Will redeem	Will redeem	Will redeem
Under heavy stress	Won't retire the instrument (it's equity-like when needed)	Won't retire the instrument (it's equity-like when needed)	Won't retire the instrument (it's equity-like when needed)	Will redeem	Will redeem

^{**}Step-up equivalents" are features that, similar to an increase in the coupon, motivate the issuer to call the issue. For example, a discrete call followed by a non-call period longer than five years would moderately motivate a call and an RCC would be required to achieve equity content, otherwise we would view that as an effective maturity. Features deemed to present a greater-than-moderate motivation to redeem cannot be remedied by an RCC. For example, a rate composed of the "higher of" a specified short-term, mid-term, and long-term interest rate after the first call (e.g. at year 10) is not curable by an RCC unless the rate is haircut to completely eliminate the penalty rate. Similarly, we would view a rate comprised of the "highest of" various uncorrelated interest rates such as Treasury (U.S.), Libor (U.K.), and the like as an effective maturity, even with an RCC. We also view a floating interest rate combined with a floor following the call date as an effective maturity even with an RCC (with an exception made in certain instances in regulated sectors).

^{**} Unregulated issuers include North American insurance holding companies, most corporates, utilities, asset managers, security exchanges and clearinghouses. We also view finance companies as unregulated in this respect. (However, for tolerance limits and treatment in ratios, finance companies follow the regulated approach. See table below.)

^{***}Regulated issuers include banks, U.S.-based securities brokers, most insurance issuers outside North America, and insurance operating companies in North America.

Table 7

Equity Unit Structures (Mismatched Mandatory Convertibles)				Treatment in year #								
Maturity of front end (security issued at outset)	Forward contract is exercised at:	Mismatch	Treated as dual financing of debt and equity	1	2	3	4	5	6	7	8	9
five years	three years	yes	yes	(\$100 debt) + (\$100 debt w/ equity content)			\$100 debt + \$100 equity		\$100 equity			
eight years	five years	yes	yes	\$100 debt		(\$100 debt) + (\$100 debt w/ equity content)		\$100 debt + \$100 equity		\$100 equity		
five years	five years	no	no	\$100 debt		\$100 debt with equity content		\$100 equity				
three years	three years	no	no	\$100 debt with equity content			\$100 equity					

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The mechanics of a typical unit structure: A unit is made up of two components: (a) a debt issue and (b) a forward contract obligating the investor to purchase common shares in three years. At year three, the debt owned by the initial investors is replaced with common stock and the debt is separately remarketed to new investors (for new proceeds). To achieve tax deductibility the structure typically separates (mismatches) the date of the debt maturity and the date of the exercise of the stock purchase/issue contract by at least two years.

The equity unit involves two sets of proceeds. It starts as \$100 in debt and in three years becomes a total issuance of \$200, made up of \$100 in debt plus \$100 in equity. In respect to capital ratios, we roll the clock forward three years and apply both the resulting debt and equity issuances to the ratios today. Where our understanding is that the second set of proceeds will be used for debt repayment, we ignore the second set of proceeds and apply "high" equity content, without the dual financing treatment, similar to our approach for the basic mandatory convertibles.

Table 8

How Equity Content Is Applied In Capital Ratio Analysis, Across Sectors				
		Corporates (Includes regulated utilities, asset managers, security exchanges and clearinghouses)***	Insurance (Excludes bond insurers that have similar, but slightly different tolerance limits)	Financial institutions (Includes securities brokers and unregulated finance companies)
		Debt/equity	Maximum allowed	Treated as 100% equity, up to allowable limits
High		Equity = 100% Debt = 0%	General guideline is 15%	Up to 25% of TAC (35% in Europe & Canada*)
Intermediate	Strong	Equity = 50% Debt = 50%	General guideline is 15%	Up to 15% of TAC in US & Bermuda (25% for European and Canadian insurers*)
	Adequate			Up to 33% of ACE (preferred with unlimited deferral)
Minimal		Equity = 0% Debt = 100%	NA	Up to 18% -or- 33%** of ACE (enhanced trust preferred i.e., more than five years deferral)
				Up to 12% of ACE (upper tier 2, trust preferred, five years deferral)
				NA

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ACE = Adjusted common equity (common equity + minority interests - unaccrued dividends - revaluation reserves - goodwill - interest only strips - tax loss carry forwards +/- pension benefits +/- other adjustments).

TAC = Total capitalization (total shareholders' equity + preferred shares + minority interest + debt - appreciation on fixed-income securities).

Note: The higher caps (maximum allowed) are cumulative of amounts in the lower caps. E.g. in applying the caps for financial institutions, we would first look at intermediate adequate instruments up to 12% (ignoring adequate instruments that were over the 12% cap), then apply enhanced trust preferred from that amount up to 18%, etc.

*In the U.S. & Bermuda where structural subordination is high, regulators allow holding company debt to fund operating company capital. So our tolerances are 25% and 15% of TAC for high and intermediate instruments, respectively. In Europe and Canada where structural subordination is low, regulators exclude holding company debt from groups' solvency, so tolerance limits are higher at 35% and 25% of TAC for high and intermediate instruments, respectively.

**The 18% basket for financial institutions only applies to North American banks and security brokers, due to regulation. For non-N.A. banks, and for all unregulated finance companies (even in N.A.) enhanced trust preferred is treated like preferred stock, i.e. up to 33%.

***In the corporate/industrial sector only, the interest payments are treated (partially) as common dividends. For "intermediate" issues, they would be treated as 50% interest and 50% common dividends (which are excluded from coverage ratios). In the financial and insurance sector all distributions are treated as interest, and only capital ratios are modified to reflect equity credit.

N.A.--Not applicable.

Table 9

Assigning Issue Ratings: Number of Notches Below the Issuer Credit Rating (ICR)				
	Investment-grade rating		Speculative-grade rating	
	Optional deferral	Mandatory deferral	Optional deferral	Mandatory deferral
Subordination	1	1	2	2
Deferral	1	Typically 2**	1	Typically 2**
Total notches	2 *	3	3	4

* The overwhelming majority of hybrid issues are investment grade with optional deferral and are rated two notches below the ICR.

**Where there is a mandatory trigger the notching for DEFERRAL would typically be 2 (or more if there is a greater-than-usual likelihood of the trigger being breached). Where there is a mandatory trigger and (a) the company credibly says it will make its best efforts to settle with common shares and (b) the risk of the trigger being breached is relatively remote, the notching for DEFERRAL would typically be 1.

Notching of mandatory convertibles and equity units: Notching of the issue rating mirrors our approach to notching of preferred stock (even if the coupons are not deferrable and the debt host is senior). Our rating on the issue does not opine on the totality of the equity risk to investors.

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