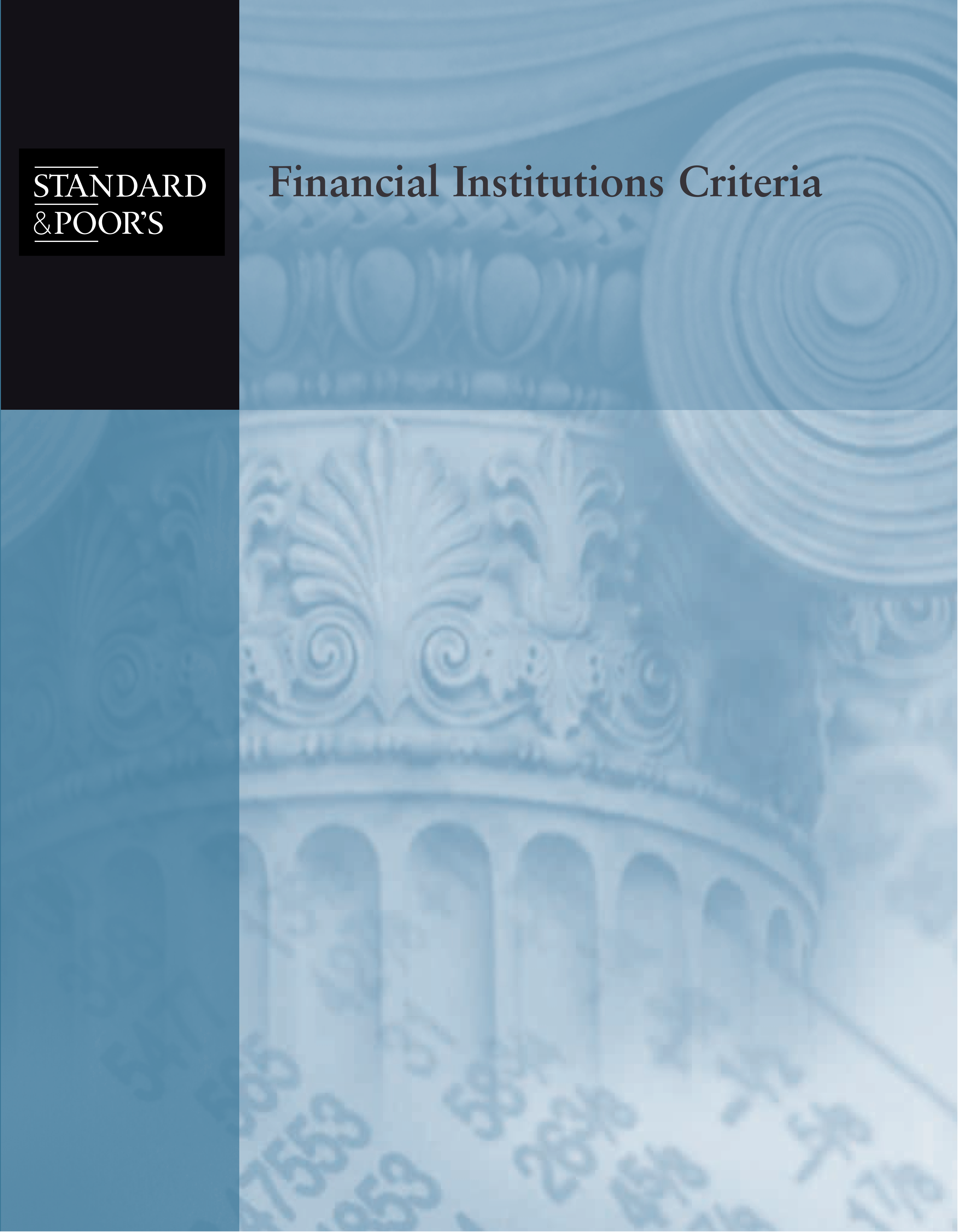

Financial Institutions Criteria

Dear Readers,

The Financial Institutions Criteria book presents Standard & Poor's analysts' latest thinking on the financial institutions rating process. As the articles contained within illustrate, this methodology is dynamic, reflecting the changing nature of the global financial services industry—especially those sectors that are regulated.

The elaboration of the ratings process presented in Financial Institutions Criteria is the result of the collaborative effort of Standard & Poor's analysts throughout the Financial Institutions Ratings Group's global network, as well as several other departments of Standard & Poor's. Although credit ratings are based on both quantitative and qualitative measures, every effort is made to assure consistency of judgments across regions and industries. In this effort, the clear definition of criteria plays an important role.

The ratings process, especially for the regulated sectors of the financial services industry, has become more complex. The proliferation of financial instruments—such as the spectrum of preferred and subordinated debt issuances by financial companies, the introduction of counterparty ratings, public information ratings, and ratings that incorporate recovery value analysis—has made the ratings process more challenging. By elaborating on the analytical factors that go into producing Standard & Poor's credit ratings for financial institutions, we hope to facilitate more informed use of ratings by issuers and investors alike.

For the most complete and up-to-date ratings criteria, please visit our website, www.ficriteria.standardandpoors.com.

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Introduction

Standard & Poor's Role in the Financial Markets

Standard & Poor's traces its history back to 1860. Today, it is a leading credit rating organization and major publisher of financial information and research services on U.S. and foreign corporate and municipal debt obligations. Standard & Poor's was an independent, publicly owned corporation until 1966, when all of its common stock was acquired by The McGraw-Hill Companies Inc., a major publishing company. In matters of credit analysis and ratings, Standard & Poor's operates entirely independently of McGraw-Hill. A separate group within Standard & Poor's provides investment, financial and trading information, data, and analyses—primarily on equity securities; this group operates separately from the credit market focused group, which provides credit analysis and ratings.

Standard & Poor's rates trillions of dollars in bonds and other financial obligations of obligors in approximately 100 countries. It rates and monitors developments pertaining to these issues and issuers from its office network in major financial centers around the world.

Despite the changing environment, Standard & Poor's core values remain the same—to provide high-quality, objective, value-added analytical information to the world's financial markets.

What Is Standard & Poor's?

Standard & Poor's is an organization of professionals that provides analytical services and operates under the basic principles of:

- Independence
- Objectivity
- Credibility
- Disclosure

It operates with no government mandate and is independent of any investment banking firm, bank, or similar organization.

Standard & Poor's recognition as a rating agency ultimately depends on investors' willingness to accept its judgment. It is important that all users of its ratings understand how it arrives at the ratings, and regularly publishes ratings definitions and detailed reports on ratings criteria and methodology.

Credit Ratings

Standard & Poor's began rating the debt of corporate and government issuers more than 75 years ago. Since then, credit rating criteria and methodology have grown in sophistication and have kept pace with the introduction of new financial products. For example, Standard & Poor's was the first major rating agency to assess the credit quality of, and assign credit ratings to, the claims-paying ability of insurance companies (1971), financial guarantees (1971), mortgage-backed bonds (1975), mutual funds (1983), and asset-backed securities (1985).

A credit rating is Standard & Poor's opinion of the general creditworthiness of an obligor, or the creditworthiness of an obligor with respect to a particular debt security or other financial obligation, based on relevant risk factors. A rating does not constitute a recommendation to purchase, sell, or hold a particular security. In addition, a rating does not comment on the suitability of an investment for a particular investor.

Standard & Poor's credit ratings and symbols originally applied to debt securities. As described below, Standard & Poor's has developed credit ratings that may apply to an issuer's general creditworthiness or to a specific financial obligation. Standard & Poor's has historically maintained separate and well-established rating scales for preferred stock and short-term instruments. Over the years, these credit ratings have achieved wide investor acceptance as easily usable tools for differentiating credit quality, because a Standard & Poor's credit rating is judged by the market to be reliable and credible.

Long-term credit ratings are divided into several categories ranging from 'AAA', reflecting the strongest credit quality, to 'D', reflecting the lowest. Long-term ratings from 'AA'

to 'CCC' may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.

A short-term credit rating is an assessment of the credit quality of an issuer with respect to an instrument considered short term in the relevant market. Short-term ratings range from 'A-1' for the highest-quality obligations to 'D' for the lowest. The 'A-1' rating may also be modified by a plus sign to distinguish the strongest credits in that category.

Issue-Specific Credit Ratings

A Standard & Poor's issue credit rating is a current opinion of the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program. This opinion may reflect the creditworthiness of guarantors, insurers or other forms of credit enhancement on the obligation and takes into account statutory and regulatory preferences.

On a global basis, Standard & Poor's issue credit rating criteria have long identified the added country risk factors that give external debt a higher default probability than domestic obligations. In 1992, Standard & Poor's revised its criteria to define external versus domestic obligations by currency instead of by market of issuance. This led to the adoption of the local currency/foreign currency nomenclatures for issue credit ratings. As rating coverage expands to a growing range of emerging market countries, the analysis of political, economic, and monetary risk factors becomes even more important.

In 1994, Standard & Poor's initiated a symbol to be added to an issue credit rating when the instrument could have significant noncredit risk. The 'r' symbol is added to such instruments as mortgage interest-only strips, inverse floaters, and instruments that pay principal at maturity based on a nonfixed source, such as a currency or stock index. The symbol is intended to alert investors to noncredit risks and emphasizes that an issue credit rating only addresses the credit quality of the obligation.

Issuer Credit Ratings

In response to a need for rating evaluations on an issuer when there is no public debt outstanding, Standard & Poor's provides an issuer (also called counterparty) credit rating—an opinion of the obligor's overall capacity to meet its financial obligations. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. The opinion is not specific to any particular financial obligation, as it does not take into account the specific nature or provisions of any particular obligation. Issuer credit ratings do not take into account statutory or regulatory preferences nor do they take into account the creditworthiness of guarantors, insurers, or other forms of credit enhancement on an obligation. Counterparty ratings, corporate credit ratings, and sovereign credit ratings are all forms of issuer credit ratings.

Since a corporate credit rating provides an overall assessment of the creditworthiness of a company, it is used for a variety of financial and commercial purposes, such as to negotiate long-term leases or minimize the need for a letter of credit for vendors.

Rating Process

Standard & Poor's provides a rating only when there is adequate information available to form a credible opinion and only after applicable quantitative, qualitative, and legal analyses are performed. The analytical framework is divided into several categories to ensure salient qualitative and quantitative issues are considered. For example, with industrial companies, the qualitative categories are oriented to business analysis, such as the firm's competitiveness within its industry and the caliber of management; the quantitative relate to financial analysis.

The rating process is not limited to an examination of various financial measures. Proper assessment of credit quality for an industrial company includes a thorough review of business fundamentals, including industry prospects for growth and vulnerability to technological change, labor unrest, or regulatory actions. In the public finance sector, this involves an evaluation of the basic underlying economic strength of the public entity, as well as the effectiveness of the governing process to address problems. In financial institutions, the reputation of the bank or company may have an impact on the future financial performance and the ability of the institution to repay its obligations.

Standard & Poor's assembles a team of analysts with appropriate expertise to review information pertinent to the rating. A lead analyst is responsible for the conduct of the rating process. Several of the team members meet with management of the organization to review, in detail, key factors that have an impact on the rating, including operating and financial plans and management policies. The meet-

ing also helps analysts develop the qualitative assessment so important in the rating decision.

(An exception to these procedures is made in the case of public information, or 'pi' ratings. A 'pi' credit rating is a local currency credit rating identified by the 'pi' subscript and based on an analysis of the obligor's published financial information, as well as additional information in the public domain. These ratings are reviewed annually based on a new year's financial statements, but may be reviewed on an interim basis if a major event that may affect an issuer's credit quality occurs. At present, 'pi' ratings are only provided on Standard & Poor's global scale.)

Following this review and discussion, a rating committee meeting is convened. At the meeting, the committee discusses the lead analyst's recommendation and the pertinent facts supporting the rating. Finally, the committee votes on the recommendation.

The issuer is subsequently notified of the rating and the major considerations supporting it. An issuer can appeal a rating prior to its publication, if new or meaningful additional information is to be presented by the issuer. Obviously, there is no guarantee that any new information will alter the rating committee's decision.

Once a final rating is assigned, it is disseminated to the public through the news media, except for ratings where the company has publication rights, such as traditional private placements. (Most 144A transactions are viewed as public deals.) In addition, if the rating is released to the media, the rating and rationale are published in RatingsDirect and other Standard & Poor's products.

Surveillance and Review

All public ratings are monitored on an ongoing basis, including review of new financial or economic developments. It is typical to schedule annual review meetings with management, even in the absence of the issuance of new obligations. Surveillance also enables analysts to stay abreast of current developments, discuss potential problem areas, and be apprised of any changes in the issuer's plans.

As a result of the surveillance process, it is sometimes necessary to change a rating. When this occurs, the lead analyst undertakes a review, which may lead to a CreditWatch listing. This is followed by a comprehensive analysis, including, if applicable, a meeting with management, and a presentation to the rating committee. The rating committee evaluates the circumstances, arrives at a rating decision, notifies the issuer, and entertains an appeal, if one is made. After this process, the rating change or affirmation is announced.

Issuers' Use of Ratings

It is common for companies to structure financing transactions to reflect rating criteria so they qualify for higher ratings. However, the actual structuring of a given issue is the function and responsibility of an issuer and its advisors. Standard & Poor's will react to a proposed financing, publish and interpret its criteria for a type of issue, and outline the rating implications for an issuer, underwriter, bond counsel, or financial advisor, but it does not function as an investment banker or financial advisor. Adoption of such a role ultimately would impair the objectivity and credibility that are vital to continued performance as an independent rating agency.

Standard & Poor's guidance also is sought on credit quality issues that might affect the rating opinion. For example, companies solicit a view on hybrid preferred stock, the sale of accounts receivable, or other innovative financing techniques before putting these into practice. Nor is it uncommon for debt issuers to undertake specific and sometimes significant actions for the sake of maintaining their ratings. For example, one large company faced a downgrade of its 'A-1' commercial paper rating owing to a growing component of short-term, floating-rate debt. To keep its rating, the company chose to restructure its debt maturity schedule in a way consistent with Standard & Poor's view of what was prudent.

Standard & Poor's formalized its ratings evaluation role under the name Rating Evaluation Service (RES). Standard & Poor's will analyze the potential credit impact of alternative strategic initiatives, establish a definitive rating outcome for each, and share these with management. This service entails an engagement letter from the company with respect to a specific plan or multiple plans.

Many companies go one step further and incorporate specific rating objectives as corporate goals. Indeed, possessing an 'A' rating, or at least an investment-grade rating, affords companies a measure of flexibility and is worthwhile as part of an overall financial strategy. Beyond that, Standard & Poor's does not encourage companies

to manage themselves with an eye toward a specific rating. The more appropriate approach is to operate for the good of the business as management sees it and to let the rating follow. Ironically, managing for a very high rating can sometimes be inconsistent with the company's ultimate best interests, if it means being overly conservative and foregoing opportunities.

Ratings Definitions

ISSUE CREDIT RATING DEFINITIONS

A Standard & Poor's issue credit rating is a current opinion of the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program (including ratings on medium term note programs and commercial paper programs). It takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation and takes into account the currency in which the obligation is denominated. The issue credit rating is not a recommendation to purchase, sell, or hold a financial obligation, inasmuch as it does not comment as to market price or suitability for a particular investor. Issue credit ratings are based on current information furnished by the obligors or obtained by Standard & Poor's from other sources it considers reliable. Standard & Poor's does not perform an audit in connection with any credit rating and may, on occasion, rely on unaudited financial information. Credit ratings may be changed, suspended, or withdrawn as a result of changes in, or unavailability of, such information, or based on other circumstances.

Issue credit ratings can be either long-term or short-term. Short-term ratings are generally assigned to those obligations considered short-term in the relevant market. In the U.S., for example, that means obligations with an original maturity of no more than 365 days—including commercial paper. Short-term ratings are also used to indicate the creditworthiness of an obligor with respect to put features on long-term obligations. The result is a dual rating, in which the short-term rating addresses the put feature, in addition to the usual long-term rating. Medium-term notes are assigned long-term ratings.

Long-Term Issue Credit Ratings

Issue credit ratings are based, in varying degrees, on the following considerations:

- Likelihood of payment—capacity and willingness of the obligor to meet its financial commitment on an obligation in accordance with the terms of the obligation;
- Nature of and provisions of the obligation;
- Protection afforded by, and relative position of, the obligation in the event of bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.

The issue rating definitions are expressed in terms of default risk. As such, they pertain to senior obligations of an entity. Junior obligations are typically rated lower than senior obligations, to reflect the lower priority in bankruptcy, as noted above. (Such differentiation applies when an entity has both senior and subordinated obligations, secured and unsecured obligations, or operating company and holding company obligations.) Accordingly, in the case of junior debt, the rating may not conform exactly with the category definition.

AAA

An obligation rated 'AAA' has the highest rating assigned by Standard & Poor's. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.

AA

An obligation rated 'AA' differs from the highest rated obligations only in small degree. The obligor's capacity to meet its financial commitment on the obligation is very strong.

A

An obligation rated 'A' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rated categories. However, the obligor's capacity to meet its financial commitment on the obligation is still strong.

BBB
An obligation rated 'BBB' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.

Obligations rated 'BB', 'B', 'CCC', 'CC', and 'C' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'C' the highest. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions.

BB
An obligation rated 'BB' is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.

B
An obligation rated 'B' is more vulnerable to nonpayment than obligations rated 'BB', but the obligor currently has the capacity to meet its financial commitment on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation.

CCC
An obligation rated 'CCC' is currently vulnerable to nonpayment, and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitment on the obligation.

CC
An obligation rated 'CC' is currently highly vulnerable to nonpayment.

C
A subordinated debt or preferred stock obligation rated 'C' is CURRENTLY HIGHLY VULNERABLE to nonpayment. The 'C' rating may be used to cover a situation where a bankruptcy petition has been filed or similar action taken, but payments on this obligation are being continued. A 'C' also will be assigned to a preferred stock issue in arrears on dividends or sinking fund payments, but that is currently paying.

D
An obligation rated 'D' is in payment default. The 'D' rating category is used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless Standard & Poor's believes that such payments will be made during such grace period. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action if payments on an obligation are jeopardized.

Plus (+) or minus(-).
The ratings from 'AA' to 'CCC' may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.

r
This symbol is attached to the ratings of instruments with significant noncredit risks. It highlights risks to principal or volatility of expected returns which are not addressed in the credit rating.

N.R.
This indicates that no rating has been requested, that there is insufficient information on which to base a rating, or that Standard & Poor's does not rate a particular obligation as a matter of policy.

Short-Term Issue Credit Ratings

A-1
A short-term obligation rated 'A-1' is rated in the highest category by Standard & Poor's. The obligor's capacity to meet its financial commitment on the obligation is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitment on these obligations is extremely strong.

A-2
A short-term obligation rated 'A-2' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories. However, the obligor's capacity to meet its financial commitment on the obligation is satisfactory.

A-3
A short-term obligation rated 'A-3' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances

are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.

B
A short-term obligation rated 'B' is regarded as having significant speculative characteristics. The obligor currently has the capacity to meet its financial commitment on the obligation; however, it faces major ongoing uncertainties which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.

C
A short-term obligation rated 'C' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation.

D
A short-term obligation rated 'D' is in payment default. The 'D' rating category is used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless Standard & Poor's believes that such payments will be made during such grace period. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action if payments on an obligation are jeopardized.

Local Currency And Foreign Currency Risks

Country risk considerations are a standard part of Standard & Poor's analysis for credit ratings on any issuer or issue. Currency of repayment is a key factor in this analysis. An obligor's capacity to repay Foreign Currency obligations may be lower than its capacity to repay obligations in its local currency due to the sovereign government's own relatively lower capacity to repay external versus domestic debt. These sovereign risk considerations are incorporated in the debt ratings assigned to specific issues. Foreign Currency issuer ratings are also distinguished from local currency issuer ratings to identify those instances where sovereign risks make them different for the same issuer.

ISSUER CREDIT RATING DEFINITIONS

A Standard & Poor's Issuer Credit Rating is a current opinion of an obligor's overall financial capacity (its creditworthiness) to pay its financial obligations. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. It does not apply to any specific financial obligation, as it does not take into account the nature of and provisions of the obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation. In addition, it does not take into account the creditworthiness of the guarantors, insurers, or other forms of credit enhancement on the obligation. The Issuer Credit Rating is not a recommendation to purchase, sell, or hold a financial obligation issued by an obligor, as it does not comment on market price or suitability for a particular investor. Counterparty Credit Ratings, ratings assigned under the Corporate Credit Rating Service (formerly called the Credit Assessment Service) and Sovereign Credit Ratings are all forms of Issuer Credit Ratings.

Issuer Credit Ratings are based on current information furnished by obligors or obtained by Standard & Poor's from other sources it considers reliable. Standard & Poor's does not perform an audit in connection with any Issuer Credit Rating and may, on occasion, rely on unaudited financial information. Issuer Credit Ratings may be changed, suspended, or withdrawn as a result of changes in, or unavailability of, such information, or based on other circumstances. Issuer Credit Ratings can be either long-term or short-term. Short-Term Issuer Credit Ratings reflect the obligor's creditworthiness over a short-term time horizon.

Long-Term Issuer Credit Ratings

AAA
An obligor rated 'AAA' has EXTREMELY STRONG capacity to meet its financial commitments. 'AAA' is the highest Issuer Credit Rating assigned by Standard & Poor's.

AA
An obligor rated 'AA' has VERY STRONG capacity to meet its financial commitments. It differs from the highest rated obligors only in small degree.

A
An obligor rated 'A' has STRONG capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in higher-rated categories.

BBB
An obligor rated 'BBB' has ADEQUATE capacity to meet its financial commitments. However, adverse

economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments.

Obligors rated 'BB', 'B', 'CCC', and 'CC' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'CC' the highest. While such obligors will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions.

BB
An obligor rated 'BB' is LESS VULNERABLE in the near term than other lower-rated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions which could lead to the obligor's inadequate capacity to meet its financial commitments.

B
An obligor rated 'B' is MORE VULNERABLE than the obligors rated 'BB', but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments.

CCC
An obligor rated 'CCC' is CURRENTLY VULNERABLE, and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.

CC
An obligor rated 'CC' is CURRENTLY HIGHLY-VULNERABLE.

Plus (+) or minus(-).
The ratings from 'AA' to 'CCC' may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.

R
An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision the regulators may have the power to favor one class of obligations over others or pay some obligations and not others. Please see Standard & Poor's issue credit ratings for a more detailed description of the effects of regulatory supervision on specific issues or classes of obligations.

SD and D
An obligor rated 'SD' (Selective Default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated) when it came due. A 'D' rating is assigned when Standard & Poor's believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when Standard & Poor's believes that the obligor has selectively defaulted on a specific issue or class of obligations but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. Please see Standard & Poor's issue credit ratings for a more detailed description of the effects of a default on specific issues or classes of obligations.

N.R.
An issuer designated N.R. is not rated.

Public Information Ratings

Ratings with a 'pi' subscript are based on an analysis of an issuer's published financial information, as well as additional information in the public domain. They do not, however, reflect in-depth meetings with an issuer's management and are therefore based on less comprehensive information than ratings without a 'pi' subscript. Ratings with a 'pi' subscript are reviewed annually based on a new year's financial statements, but may be reviewed on an interim basis if a major event occurs that may affect the issuer's credit quality.

Outlooks are not provided for ratings with a 'pi' subscript, nor are they subject to potential CreditWatch listings. Ratings with a 'pi' subscript generally are not modified with '+' or '-' designations. However, such designations may be assigned when the issuer's credit rating is constrained by sovereign risk or the credit quality of a parent company or affiliated group.

Termination Structure

T
Termination structures are designed to honor their contracts to full maturity or, should certain events occur, to terminate and cash settle all their contracts before their final maturity date.

Short-Term Issuer Credit Ratings

A-1
An obligor rated 'A-1' has STRONG capacity to meet its financial commitments. It is rated in the highest category by Standard & Poor's. Within this

category, certain obligors are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments is EXTREMELY STRONG.

A-2
An obligor rated 'A-2' has SATISFACTORY capacity to meet its financial commitments. However, it is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in the highest rating category.

A-3
An obligor rated 'A-3' has ADEQUATE capacity to meet its financial obligations. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments.

B
An obligor rated 'B' is regarded as VULNERABLE and has significant speculative characteristics. The obligor currently has the capacity to meet its financial commitments; however, it faces major ongoing uncertainties which could lead to the obligor's inadequate capacity to meet its financial commitments.

C
An obligor rated 'C' is CURRENTLY VULNERABLE to nonpayment and is dependent upon favorable business, financial, and economic conditions for it to meet its financial commitments.

R
An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision the regulators may have the power to favor one class of obligations over others or pay some obligations and not others. Please see Standard & Poor's issue credit ratings for a more detailed description of the effects of regulatory supervision on specific issues or classes of obligations.

SD and D
An obligor rated 'SD' (Selective Default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated) when it came due. A 'D' rating is assigned when Standard & Poor's believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when Standard & Poor's believes that the obligor has selectively defaulted on a specific issue or class of obligations but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. Please see Standard & Poor's issue credit ratings for a more detailed description of the effects of a default on specific issues or classes of obligations.

N.R.
An issuer designated N.R. is not rated.

Local Currency And Foreign Currency Risks
Country risk considerations are a standard part of Standard & Poor's analysis for credit ratings on any issuer or issue. Currency of repayment is a key factor in this analysis. An obligor's capacity to repay Foreign Currency obligations may be lower than its capacity to repay obligations in its local currency due to the sovereign government's own relatively lower capacity to repay external versus domestic debt. These sovereign risk considerations are incorporated in the debt ratings assigned to specific issues. Foreign Currency issuer ratings are also distinguished from local currency issuer ratings to identify those instances where sovereign risks make them different for the same issuer.

Rating Outlook Definitions
A Standard & Poor's Rating Outlook assesses the potential direction of a long-term credit rating over the intermediate to longer term. In determining a Rating Outlook, consideration is given to any changes in the economic and/or fundamental business conditions. An Outlook is not necessarily a precursor of a rating change or future CreditWatch action.

- Positive means that a rating may be raised.
- Negative means that a rating may be lowered.
- Stable means that a rating is not likely to change.
- Developing means a rating may be raised or lowered.
- N.M. means not meaningful.

CreditWatch
CreditWatch highlights the potential direction of a short- or long-term rating. It focuses on identifiable events and short-term trends that cause ratings to be placed under special surveillance by Standard & Poor's analytical staff. These may include mergers, recapitalizations, voter referendums, regulatory action, or anticipated operating developments. Ratings appear on CreditWatch

when such an event or a deviation from an expected trend occurs and additional information is necessary to evaluate the current rating. A listing, however, does not mean a rating change is inevitable, and whenever possible, a range of alternative ratings will be shown. CreditWatch is not intended to include all ratings under review, and rating changes may occur without the ratings having first appeared on CreditWatch. The “positive” designation means that a rating may be raised; “negative” means a rating may be lowered; and “developing” means that a rating may be raised, lowered, or affirmed.

Dual Ratings Definitions

Standard & Poor’s assigns “dual” ratings to all debt issues that have a put option or demand feature as part of their structure. The first rating addresses the likelihood of repayment of principal and interest as due, and the second rating addresses only the demand feature. The long-term debt rating symbols are used for bonds to denote the long-term maturity and the commercial paper rating symbols for the put option (for example, ‘AAA/A-1+’). With short-term demand debt, Standard & Poor’s note rating symbols are used with the commercial paper rating symbols (for example, ‘SP-1+/A-1+’).

Bank Survivability Assessment Definitions

A Standard & Poor’s bank survivability assessment is a current opinion on the likelihood that over the medium-term, a bank will either directly or through a successor organization, remain in operation, regardless of whether it is solvent or insolvent, paying all of its obligations on a timely basis or not. The survivability assessment, however, does not itself comment on which particular functions the bank might continue to perform and which may cease in a stress situation. The bank survivability evaluation is linked to the issuer credit rating, and generally would be the same or higher than the issuer credit rating. A relatively low survivability assessment does not constitute an opinion by Standard & Poor’s that a particular bank is likely to fail; rather it indicates a vulnerability to adverse circumstances which could affect the bank’s ability to meet its financial obligations on a timely basis, without special circumstances which would clearly enhance the likelihood that it would continue to operate in such an event.

Compared to the issuer credit rating, the survivability assessment places greater emphasis on factors such as a bank’s relative position in the banking system of its country, in terms of market share and financial strength, special roles, and ownership by the government or a strong parent. The survivability assessment thus takes into account that certain banks, even though they may exhibit certain weaknesses that might impair the likelihood that they will be able to be repay all of their financial obligations on a timely basis, could be either among the strongest within their own country or considered “too big to fail,” and thus are more likely, if necessary, to be kept open through direct government support or regulatory forebearance. The survivability assessment also takes into account that in the event of systemic crises, governments sometimes temporarily freeze deposits or otherwise cause them to default on certain financial obligations, but typically allow certain banks to remain in operation.

The existence of a survivability assessment at a given level does not imply that any particular unrated financial obligation of the bank will be repaid or otherwise honored with that level of likelihood. The survivability assessment is in effect the ceiling at which certain obligations of, or supported by the bank might be rated absent external support such as a guarantee. Standard & Poor’s will evaluate the likelihood that a particular type of obligation would still be honored over the expected lifetime of a particular transaction, in rating a particular issue of, or supported by the bank. Therefore, users of ratings should consult the ratings on the specific issues.

Survivability assessments are based on current information furnished by the bank or obtained by Standard &Poor’s from other sources it considers reliable. Standard & Poor’s does not perform an audit in connection with the survivability assessment, and may, on occasion, rely on unaudited financial information. Survivability assessments may be changed, suspended or withdrawn, as the result of changes in the bank’s credit ratings, as well as to changes in, or unavailability of information, or based on other circumstances.

AAA

A bank with a ‘AAA’ survivability assessment has EXTREMELY STRONG likelihood of remaining in operation either directly or through successors,,

and the assessment typically would only be given to banks that also maintain that level of capacity to meet their financial commitments on a timely basis. 'AAA' is the highest survivability evaluation assigned by Standard & Poor's.

AA
A bank with a 'AA' survivability assessment has VERY STRONG likelihood of continuing operations, and the assessment also typically would only be given to banks that also maintain that level of capacity to meet their financial commitments on a timely basis. The likelihood differs from that of the highest assessed banks only in small degree.

A
A bank with a survivability assessment of 'A' has STRONG likelihood of continuing operations, but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than banks assessed in higher categories.

BBB
A bank with a survivability assessment of 'BBB' has ADEQUATE likelihood of continuing operations. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened likelihood of so doing, than in the higher categories.

BB
A bank with a survivability assessment of 'BB' faces significant ongoing UNCERTAINTIES and exposure to adverse business, financial, or economic conditions. These could lead to uncertainties in the bank's ability to maintain operations in which case the bank may become subject to regulatory intervention.

B
A bank with a survivability assessment of 'B' is VULNERABLE. Adverse business, financial or economic conditions will likely impair the bank's ability to maintain operations in which case the bank may become subject to regulatory intervention.

CCC
A bank with a survivability assessment of 'CCC' is CURRENTLY VULNERABLE, and is dependent upon favorable business, financial, economic or regulatory actions to remain in business.

CC
A bank evaluated at 'CC' is CURRENTLY HIGHLY VULNERABLE.

Plus (+) or minus (-)
Evaluations from 'AA' to 'CCC' may be modified by the addition of a plus or minus sign to show relative standing within the major categories.

R
A bank evaluated at 'R' is currently under regulatory supervision owing to its financial condition. Its ability to remain in business will be determined by future regulatory action.

RATING TERMINOLOGY

Credit Assessment

Credit assessments are preliminary indicators of creditworthiness expressed in either a broad rating category or in descriptive terms. They provide an evaluation of the general strengths and weaknesses of an issuer, obligor, a proposed financing structure, or elements of such structures. Credit assessments represent a point-in-time evaluation and are generally confidential. Standard & Poor's does not maintain ongoing surveillance on credit assessments.

Credit Estimate

A credit estimate is a confidential indication provided to a third party of the likely issuer credit rating on an unrated company. The rating estimate is based on input from a variety of sources including Credit Model, where applicable, and abbreviated methodology that draws on analytical experience and industry knowledge of the Standard & Poor's analysts(s) specializing in the industry in which the company operates. These estimates do not involved direct contact with the company or the in-depth insight into competitive, financial, or strategic issues that such contact allows. Standard & Poor's does not maintain ongoing surveillance on Credit Estimates, but can perform periodic updates upon request.

Credit Evaluation

Credit evaluation is used widely as a generic term in evaluating the creditworthiness of nonrated instruments. It is often used in conjunction with individual loans in CMBS transactions. It is also used as a general term, interchangeable with credit opinion and credit analysis.

Public Information (Pi) Rating

Ratings with a 'pi' subscript are based on an analysis of an issuer's published financial information, as well as additional information in the public domain. They do not, however, reflect in-depth meetings with an issuer's management and are

therefore based on less-comprehensive information than ratings without a 'pi' subscript. Ratings with a 'pi' subscript are reviewed annually based on a new year's financial statements, but may be reviewed on an interim basis if a major event occurs that may affect the issuer's credit quality.

Shadow Rating

Shadow ratings are used in Public Finance and Structured Finance for issues backed by bond insurance to assess risks being taken by the monoline bond insurers.

Spurs (Standard & Poor's Underlying Rating)

This is a rating of a stand-alone capacity of an issue to pay debt service on a credit-enhanced debt issue, without giving effect to the enhancement that applies to it. These ratings are published only at the request of the debt issuer/obligor with the designation SPUR to distinguish them from the credit-enhanced rating that applies to the debt issue. As long as the SPUR rating is outstanding, Standard & Poor's will maintain surveillance on the issue.

Stand-Alone Rating

A stand-alone rating is the rating that would likely be achieved in the absence of constraint or enhancement by a third party (parent, subsidiary, guarantor, or government entity).

Survivability Assessment

A Standard & Poor's bank survivability assessment is a current opinion on the likelihood that over the medium-term, a bank will either directly or through a successor organization, remain in operation, regardless of whether it is solvent or insolvent, paying all of its obligations on a timely basis or not. The survivability assessment, however, does not itself comment on which particular functions the bank might continue to perform and that may cease in a stress situation. The bank survivability evaluation is linked to the issuer credit rating, and generally would be the same or higher than the issuer credit rating. A relatively low survivability assessment does not constitute an opinion by Standard & Poor's that a particular bank is likely to fail; rather it indicates a vulnerability to adverse circumstances which could affect the bank's ability to meet its financial obligations on a timely basis, without special circumstances which would clearly enhance the likelihood that it would continue to operate in such an event.

Rating Process

Financial institutions active in the capital markets or as counterparties in financial transactions approach Standard & Poor's to request a rating prior to sale or registration of a debt issue, or to seek a counterparty rating. In this way, first-time issuers can receive an indication of what rating to expect.

Once Standard & Poor's receives a request for a rating, an analyst with relevant industry expertise is assigned to follow the company. Standard & Poor's financial institutions' analysts concentrate on one or two industries, among the seven industries (banks, brokerage, finance company, asset manager, credit union, financial exchanges, mortgage company) covered by the financial institutions department. While an industry analyst takes the lead in following a given issuer and typically handles day-to-day contact, a team of experienced analysts is also always involved in the rating relationship with each issuer. The Global Chief Quality Officer is responsible for ratings quality and consistency throughout the world, and several regional quality officers assist in this task.

Meeting with Management

A meeting with company management is an integral part of Standard & Poor's rating process. The purpose of such a meeting is to review in detail the company's key operating and financial plans, management policies, and other credit factors that have an impact on the rating. Management meetings are critical in helping to reach a balanced assessment of a company's circumstances and prospects.

Participation. The company typically is represented by its chief financial officer. The chief executive officer usually participates when strategic issues are reviewed. Operating executives often present detailed information regarding business segments.

Outside advisors may be helpful in preparing an effective presentation. Their use is neither encouraged nor discouraged by Standard & Poor's: it is entirely up to management whether advisors assist in the preparation for meetings and whether they attend the meetings.

Scheduling. Management meetings are usually scheduled at least several weeks in advance to assure mutual availability of the appropriate participants and allow adequate preparation time for the Standard & Poor's analysts. In addition, if a rating is being sought for a pending issuance, it is to the issuer's advantage to allow about three weeks following a meeting for Standard & Poor's to complete its review process. More time may be needed in certain cases, for example, if extensive review of documentation is necessary. However, where special circumstances exist and a quick turnaround is needed, Standard & Poor's will endeavor to meet the requirements of the marketplace.

Facility tours. Touring major facilities can be helpful in gaining an understanding of a company's business. However, this is generally not essential. Given the time constraints that typically arise in the initial rating exercise, arranging facility tours may not be feasible. As discussed below, such tours may well be a useful part of the subsequent surveillance process.

Preparing for meetings. Corporate management should feel free to contact its designated Standard & Poor's analyst for guidance in advance of the meeting regarding the particular areas that will be emphasized in the analytic process. Published ratings criteria, as well as industry commentary and articles on peer companies, may also be helpful to management in appreciating the analytic perspective. However, Standard & Poor's prefers not to provide detailed, written lists of questions, since these tend to constrain spontaneity and artificially limit the scope of the meeting.

Well in advance of the meeting, the company should submit background materials (ideally, several sets), including:

- Five years of audited annual financial statements;
- The past several interim financial statements;

- Narrative descriptions of operations and products; and
- If available, a draft registration statement or offering memorandum, or equivalent.

Apart from company-specific material, relevant industry information may also be useful.

While not mandatory, written presentations by management and slides often provide a valuable framework for the discussion. Such presentations typically mirror the format of the meeting discussion, as outlined below. Where a written presentation is prepared, it is particularly useful for Standard & Poor's analytical team to be afforded the opportunity to review this in advance of the meeting.

There is no need to try to anticipate all questions that might arise. If additional information is necessary to clarify specific points, it can be provided subsequent to the meeting. In any case, Standard & Poor's analysts generally will have follow-up questions that arise as the information covered at the management meeting is further analyzed.

Confidentiality. A substantial portion of the information set forth in company presentations is highly sensitive and is provided by the issuer to Standard & Poor's solely for the purpose of arriving at ratings. Such information is kept strictly confidential by the ratings group. Even if the assigned rating is subsequently made public, any rationales or other information that Standard & Poor's publishes about the company will only refer to publicly available company information. It is not to be used for any other purpose, nor by any third party, including other Standard & Poor's units. Standard & Poor's maintains a "Chinese Wall" between its rating activities and its equity information services.

Conduct of meeting. The following is an outline of the topics that Standard & Poor's typically expects issuers to address in a management meeting:

- The industry environment and prospects;
- An overview of major business segments, including operating statistics and comparisons with competitors and industry norms;
- Management's financial policies and financial performance goals;
- Distinctive accounting practices; and
- Financing alternatives and contingency plans.

It should be understood that Standard & Poor's ratings are not based on the issuer's financial projections or its view of what the future may hold. Rather, ratings are based on Standard & Poor's assessment of the firm's prospects. Management meetings with companies new to the rating process typically last a day, but in many cases can take two days.

Short, formal presentations by management may be useful to introduce areas for discussion. Standard & Poor's preference is for meetings to be largely informal, with ample time allowed for questions and responses. At management meetings, as well as at all other times, Standard & Poor's welcomes questions regarding its procedures, methodology, and analytical criteria.

Rating Committee

Shortly after the issuer meeting, a rating committee, normally consisting of five to seven voting members, is convened. A presentation is made by the industry analyst to the rating committee, which has been provided with appropriate financial statistics and comparative analysis. The presentation follows the methodology outlined in the next sections of this volume, and includes a rating recommendation. When a specific issue is to be rated, there is an additional discussion of the proposed issue and terms of the indenture.

Once the rating is determined, the company is notified of the rating and the major considerations supporting it. It is Standard & Poor's policy to allow the issuer to respond to the rating decision prior to its publication by presenting new or additional data. Standard & Poor's entertains appeals in the interest of having available the most information possible and, thereby, the most accurate ratings. In the case of a decision to change a rating, any appeal must be conducted as expeditiously as possible. The committee reconvenes to consider the new information. After notifying the company, the rating is disseminated in the media or released to the company for dissemination in the case of private placement credit ratings.

To maintain the integrity and objectivity of the rating process, Standard & Poor's internal deliberations and the identities of persons who sat on a rating committee are kept confidential and are not disclosed to the issuer.

Surveillance

Ratings on publicly distributed issues are monitored for the life of the issue or until lack of information precludes maintaining a rating. Private placement ratings assigned at the company's request have the option of being surveilled, or of being on a "point-

in-time" basis. Surveillance is performed by the same industry analysts who work on the assignment of the ratings. To facilitate surveillance, companies are requested to put the primary analyst on mailing lists to receive interim and annual financial statements and press releases.

The primary analyst is in periodic telephone contact with the company to discuss ongoing performance and developments, and Standard & Poor's likes to visit with management when these vary significantly from expectations. Also, Standard & Poor's encourages companies to discuss hypothetically, again, in strict confidence, transactions that are perhaps only being contemplated (e.g., acquisitions, new financings), and it endeavors to provide frank feedback about the potential ratings implications of such transactions.

In any event, management meetings are routinely scheduled at least annually. These meetings enable analysts to keep abreast of management's view of current developments, discuss business units that have performed differently from original expectations, and be apprised of changes in plans. As with initial management meetings, Standard & Poor's willingly provides guidance in advance regarding areas it believes warrant emphasis at the meeting. Typically, there is no need to dwell on basic information covered at the initial meeting.

For several reasons, a significant portion of the meetings with company officials takes place on their own premises: to facilitate increased exposure to management personnel, particularly at the operating level; to obtain a first-hand view of new or modernized facilities or operating systems; and to achieve a better understanding of the company by spending more time reviewing the business units in depth. While Standard & Poor's actively encourages meetings on company premises, time and scheduling constraints on both sides dictate that arrangements for these meetings be made some time in advance.

Since the staff is organized by specialty, analysts typically meet each year with several companies in their assigned area to discuss industry outlook, business strategy, and financial forecasts and policies. This way, competitors' views of the environment can be compared, and Standard & Poor's can assess implications of competitors' strategies for the industry. The analyst can judge management's relative optimism regarding market conditions and relative aggressiveness in approaching the marketplace.

Importantly, the analyst compares business strategies and financial plans over time and seeks to understand why they changed. This exercise provides insights regarding management's abilities with respect to forecasting and implementing plans. By meeting with different managements during a year and the same management year after year, analysts learn to distinguish between those with thoughtful, realistic agendas versus those with wishful approaches.

Management credibility is achieved when the record demonstrates that a company's actions are consistent with its plans and objectives. Once earned, credibility can help to support continuity of a particular rating level, because Standard & Poor's can rely on management to do what it says to restore creditworthiness when faced with financial stress or an important restructuring. The rating process benefits from the unique perspective on credibility gained by extensive evaluation of management plans and financial forecasts over many years.

Rating Changes

As a result of the surveillance process, it sometimes becomes apparent that changing conditions require reconsideration of the outstanding debt rating. When this occurs, the analyst undertakes a preliminary review, which may lead to a CreditWatch listing. This is followed by a comprehensive analysis, communication with management, and a presentation to the rating committee. The rating committee evaluates the matter, arrives at a rating decision, and notifies the company, after which Standard & Poor's publishes the rating. The process is exactly the same as the rating of a new issue.

Reflecting this surveillance, the timing of rating changes depends neither on the sale of new debt issues, nor on Standard & Poor's internal schedule for reviews.

Information Requirements for Obtaining a Rating

The following lists of disclosure requirements and the proposed agenda are meant as guidelines for banks applying for credit ratings. The additional disclosures should be provided by banks in countries where such information is not disclosed in annual reports, prospectuses, offering circulars, or other public statements. All information should be provided to cover a period of five years. If possible, it should be submitted in writing prior to meetings between bank management and Standard & Poor's analysts. To the extent that internal reports used by bank management cover the required information, these would be the preferred source of the information. For instance, if minutes of an asset and liability management committee contain information on asset and liability matching, liquidity positions, and interest rate risk, a copy of these minutes would be preferable to reports specially prepared for the rating exercise.

The proposed agenda is designed to exemplify the topics that would be covered in face-to-face meetings between bank management and Standard & Poor's analysts. This schedule has been grouped by broad areas of discussion. Typically, however, the meetings would be tailored to the bank's own organization. Meetings are best organized into blocks of time with senior officers of the relevant departments of a bank, who would discuss items within their purview. Lengthy formal presentations are not expected; short introductions to a department's responsibilities, with sufficient time for informal discussion, questions and answers, are preferred.

Standard & Poor's stands ready to give additional guidance on the type of information or meeting agenda we would expect from any bank seeking a rating, or to comment on preliminary agendas drawn up by a bank or its advisors.

Additional Disclosures From Banks

I. Accounting principles

A. How domestic accounting practices differ from International Accounting Standards.

II. Asset diversification

A. Analysis of loan portfolio by general categories (commercial, real estate, consumer etc.), collateral or other form of security, industry and geography.

III. Balance sheets and income statements

A. Consolidating statements for subsidiaries equaling 5% or more of assets or earnings, if available.
B. Nonconsolidated subsidiaries equaling 5% of assets or earnings.

IV. Asset quality

A. Brief description of credit approval and review procedures.
B. List of approval limits.
C. Discussion and quantification of "problem" loans and "large" loans, including lists of 20 largest group exposures, 20 largest problem exposures, and any loans to related entities.
D. Balances of foreclosed properties, rescheduled loans, securities received in settlement of loans, interest accrued but not received, and any other assets related to prior or current problem loans.
E. Details of any credit derivatives purchased or sold.
F. Breakdown of securities portfolio by type of instrument and accounting treatment (investment account, held for sale, trading account etc.), showing both book and market value.
G. List of 20 largest equity investments, by book and market value.

V. Loss experience

A. Reconciliation of historical loan loss reserves and provisions (broken down into general and specific) and charge-offs. Should show beginning of period provision

balance, additions and subtractions by type, and period-end balances.

B. Amount of any credit-related losses not included as loan losses (e.g. losses on foreclosed real estate, losses on shares received in exchange for loans).

C. Detailed discussion of accounting practices in this area.

VI. Country risk exposures

A. Brief description of country limit assignment and review procedures.

B. Country limits and exposure.

VII. Capital adequacy

A. Information concerning all reserves and provisions including loan loss reserves, reserves included in "other liabilities," and assets where value is either understated (such as securities portfolio, participations) or not included on the balance sheet.

B. The bank's position relative to BIS and any other specific regulatory capital requirements.

C. Details of any instruments other than common equity that are included in capital.

VIII. Fund and liquidity

A. Detailed breakdown of assets and liabilities into domestic and foreign currency.

B. Historic experience and current policies concerning the "matching" of assets and liabilities both in domestic and foreign currencies.

C. Discussion of liquidity policies including bank-line policies in relation to foreign currency liabilities.

D. Position relative to any specific regulatory liquidity requirements.

IX. Market risk management

A. Brief description of asset and liability management (ALM) and trading risk management systems.

B. Description of VAR calculations, if used.

C. If available, graph of actual daily trading profit and loss.

D. Schedule of position limits.

E. Summary of internal inspection department's latest report on controls in trading areas.

X. Profitability

A. Profit impact of accounting practices regarding the securities portfolio, including realized and unrealized gains and losses relating to the investment and trading portfolio, and any discretionary depreciation of these portfolios.

B. Profit impact of foreign exchange and gold transactions, with indication of the relative importance, of trading versus fee or commission income.

C. Average yields of assets, rates paid on liabilities and margins, by category.

D. Detailed breakdown of fee, commission and other income, and general, administrative and other expenses.

E. Details of any income or expense items considered extraordinary or nonrecurring.

F. Historical record of profitability measures considered important by the bank (return on equity, return on assets, efficiency ratio, etc).

XI. Plans

A. Discussion of long-term goals and strategies and, to the extent possible, quantification of short and long-term plans (balance sheet and income statement projections), with underlying assumptions.

XII. Ownership

A. List of major shareholders (with individual, family or group interests of 5% or more).

B. Consolidated and company-only financial statements of any parent company and intermediate holding companies.

C. Annual reports or financial statements of major sister companies.

D. General information on major holdings of individual or families with major stakes in the bank.

E. Dividend policies.

F. Information on any management or service contracts with related entities.

Proposed Agenda for Banks

I. Introductory session

A. Review schedule of meetings.

B. Overview of the bank.

1. Historical perspective.
2. Corporate goals.
3. Corporate structure.
4. Organization chart.
5. Types of banking and nonbank activities.
6. Competitive environment.
7. Ownership and shareholder relations.
8. Role of board of directors.

II. Review of inspection and auditing procedures

A. Description of inspection system.
B. Relationship with external auditors.

III. Regulatory environment

A. Relationship with regulators.
B. Summary of regulatory system, controls and requirements, with particular emphasis on recent developments.

IV. Retail banking

A. Organization of retail network and operations.
B. Competition.
C. Automation.

V. Lending activities

A. Overview of loan activities.
  1. Organization.
  2. Policies.
  3. Analysis of loan portfolio.
  4. Types of loan instruments.
  5. Types of borrowers.
  6. Maturities.
  7. Pricing.
  8. Anticipated growth areas.
B. Loan approval and review process.
C. Problem loans and loan loss experience.
  1. Definition and administration of problem loans.
  2. Definition of bad loans.
  3. Provisioning or reserving policy.
  4. Write-off policy.
  5. Recoveries.
  6. Discussion of major past, present and anticipated problem loan areas.

VI. Domestic funding/asset and liability management

A. Overview of funding policy.
B. Liquidity policies.
C. Mix of deposits.
  1. Type.
  2. Maturity.
  3. Rate.
D. Other sources of funding.
E. Asset-liability management systems.
F. Interest rate risk.
G. Use of derivatives.

VII. International activities

A. Overview of international division.
  1. Organization.
  2. Types of activities and services.
  3. Administration of overseas branches and subsidiaries.
  4. Future expansion.
B. Analysis of overseas portfolio and lending policy.
  1. Types of instruments.
  2. Types of borrowers.
  3. Currency and geographic exposure.
  4. Country risk.
C. Funding and foreign exchange.
  1. Sources of funds.
  2. Limits and controls.

VIII. Investment & trading activities

A. Policies, risk monitoring systems, limits.
B. Analysis of portfolio.
C. Underwriting activities.
D. Trading profits and losses.
E. Operational control.

IX. Nonbank operations (if significant)

X. Corporate financial administration

A. Review of five-year financial performance.
B. Capital and dividend policy.
C. Planning and control systems.
D. Review of latest operating budget and long-term plan.
E. Discussion of off-balance sheet assets and liabilities, including contingent liabilities.
F. Discussion of relevant accounting concerns.
Any other pertinent issue not covered elsewhere.

Rating Methodology

Rating Banks

Credit analysis of a bank includes a wide range of quantifiable and nonquantifiable factors. The weight given each in the analysis of a particular institution will vary, depending on the economies, laws, and customs of the countries in which the institution operates; accounting practices; the competitive situation; and the regulatory environment. Thus, there is no standard group of ratios that sets minimum requirements for each rating category.

Economic and Industry Risk

The environment in which a bank operates is key to understanding the individual institution's operations. Experience shows that even the best bank in a country may undergo severe stress if the country in which it operates suffers a painful economic slowdown or recession, and the banking system's health declines substantially. This is true in mature as well as less developed markets.

With regard to economic risk, Standard & Poor's considers the risk level of a country's economy as it affects financial institutions, as opposed to the country's own credit quality. Included are the economy's strength, diversity, and volatility; the financial health of the corporate and individual sectors; and the government's ability to manage the economy through boom and recessionary periods.

The industry risk category contains many elements, and for any system there will be both positive and negative factors. While it is difficult to say which factors will outweigh others in any one system, generally Standard & Poor's gauges the dynamics of the financial service industry and to what extent those dynamics lead to more or less risk from the debtholder's or counterparty's point of view. In making this assessment, the quality of the regulatory regime and any governmental support mechanisms for banks can be especially important.

Corporate Structure

Banks are increasingly members of complex groups that play significant roles in their domestic economy or in the international markets. If a bank is a member of a larger group, Standard & Poor's will analyze the parent's operations to determine whether it adds to or detracts from the financial strength of the subsidiary bank. In many instances, being part of a larger group can have significant advantages in providing both domestic and international services. Standard & Poor's attempts to determine whether the group is willing or legally capable of supporting the bank, if necessary. At the same time, if the other group members are weaker than the bank, it must be determined to what extent income may be diverted to less profitable group members or loans may be made to group members or related parties on an uneconomic basis, to the detriment of the bank's financial condition.

Management and Strategy

In determining any rating, the past is important only as an indicator of the future. While many institutions furnish forecasts of expected levels of profitability and capitalization, face-to-face discussions with senior management are even more valuable. These discussions cover economic conditions, the current and expected regulatory and competitive environments, and future diversification and acquisitions. The review also includes a discussion of the extent to which profitability levels will be maintained and how required capital and liquidity levels will be financed. Management's philosophy in each of these areas is covered.

Accounting & Financial Reporting

Standard & Poor's closely examines the accounting principles applied and the underlying assumptions utilized by a bank. The aim of this analysis is not to "score" the bank's

accounting but to determine its impact on measures used in the more quantitative aspects of the rating analysis, such as asset quality, profitability, liquidity, and capitalization, as well as qualitative aspects such as management, including its financial policy and internal information systems.

Standard & Poor's analysis of accounting incorporates a study of the impact of national accounting principles and practices, which vary widely from country to country. Where appropriate, adjustments are made to financial statements to arrive at a more faithful representation of credit measures and improve comparability. Recent moves to adopt International Financial Reporting Standards (IFRS) in many countries, including those of the European Union, Australia, and Canada, as well as ongoing convergence of U.S. GAAP and IFRS, attempt to bring about greater comparability of banks' financial statements in various countries. Still, during the transition period, changing accounting standards will actually aggravate the complexity and difficulties in comparison. It is also unclear how many differences will remain in the practical application of IFRS in different countries, or how closely GAAP and IFRS will converge. Most importantly, differences will remain to the extent that certain accounting standards allow for optional accounting-treatment (e.g., elective mark-to-market, hedge accounting, or expensing of stock-based compensation) and also as they relate to the different assumptions used (such as those underlying loan loss provisions and charge-offs, degree of impairment of other assets, realization of deferred tax assets, valuation methodologies for derivative financial instruments, gains on sale of securitized assets, and valuation of retained-interests, etc.) by individual banks, which could lead to their accounting being more or less conservative from a credit perspective. Thus, despite recent moves toward convergence of accounting standards, Standard & Poor's envisions continuing analysis of individual banks' accounting and adjustment of their financial statements and ratios for analytical purposes as appropriate.

Credit Risk and Its Management

A discussion of credit risk encompasses the entire spectrum of an institution's activities, including loans, debt securities, equity investments, and on- and off-balance sheet counterparty exposures. The primary areas of concern are diversification and risk. Broadly speaking, Standard & Poor's analyzes the bank's total credit exposure through breakdowns by geography, collateral, maturity, industry sector, and type of borrowers (consumer, commercial, corporate, bank, or government). Rather than following a rigid framework, Standard & Poor's prefers to work with the bank's own internal information and reports in order to understand how the bank manages credit risk and the loan portfolio. Subjective factors such as the bank's experience and record in various types of lending and investment activities, competitive strengths, and market share are also important elements in the analysis. To compare institutions in different countries, Standard & Poor's makes extensive use of risk-adjusted asset quality indicators to reflect the relatively low-risk nature of certain government, interbank, and residential mortgage portfolios, and the high-risk profile of equity investments.

The process of credit approval, including lending criteria and approval limits, is carefully reviewed. Portfolio monitoring procedures and the auditing function are also discussed.

Concentration of risk is an important factor when reviewing the loan portfolio. Standard & Poor's determines if the bank offers general lending or if it specializes. When a significant portion of assets is employed in one particular segment of the economy, a request for additional information on that sector would be made, along with the rationale as to the bank's heavy involvement in the segment. To gauge the importance of individual borrowers, Standard & Poor's will review the bank's largest credit exposures. When analyzing foreign assets, country exposures are reviewed by amount, type, and maturity.

The history of nonperforming assets, loan losses, and provisions is of extreme importance. Data for each of the past five years are reviewed. In assessing the true level of problematic assets, Standard & Poor's looks beyond the regulatory definitions of problem loans to determine the level of assets on or off the bank's balance sheet for which the bank is exposed to a heightened level of credit risk.

When analyzing a bank's loan loss provisions Standard & Poor's begins by studying:

- The length of time an unpaid loan can continue before being declared delinquent;
- How long a provision is established for delinquent loans;

- How long the provision exists before the loan is charged off;
- If a provision indicates an impending write-off or if provisions made at a level comfortably above expected losses; and
- If charge-offs are made conservatively so that a large number are recovered fairly quickly, or if they are only recorded when ultimate loss is a virtual certainty.

Tax and regulatory considerations affect these decisions, and the responses to these questions will indicate which of the figures is the critical indicator of true loan losses.

Market Risk and Its Management

Standard & Poor's examines in detail the level of market risk over the entire range of a financial institution's activities, whether on- or- off-balance sheet, for example, in its asset and liability structure, trading activities, securities underwriting business, etc. Management's strategy and general risk appetite in these areas are key.

The analysis of a bank's asset and liability mix includes an assessment of both external and internal factors affecting interest, maturity, and currency matching. The bank's general philosophy of asset and liability management and the systems for monitoring exposures is then discussed. Standard & Poor's is interested in management's record of reacting to changing circumstances. A bank that takes an interest rate or currency position and maintains the exposure regardless of subsequent events is viewed more negatively than one that quickly liquidates or closes open positions when markets move adversely.

With respect to trading risk management, Standard & Poor's due diligence process involves reviewing with management its policies, practices, and organizational structure in all areas of risk management, as well as an analysis of its results. In reviewing management policies and procedures, Standard & Poor's has found that most managements are aware of what proper policies should be and will purport to have such policies in place. The real issue is how well and consistently these policies are practiced. The assessment is performed through a comparative review of trading banks worldwide.

Funding/Liquidity

The analysis of liquidity focuses on both the nature and sources of a bank's funds, as well as on the character of its assets. Retail deposit-funded banks, with a large and diversified customer base offering a variety of deposit products through branch networks, contrast with wholesale banks, which access their funds from the capital markets. Both types of banks are examined as to the stability of their sources of funds, as well as the maturity structure of liabilities, and assessed as to their ability to meet obligations as they come due. The liquidity review also focuses on the ability to turn assets into cash, either through the natural maturation of the assets or through sale into liquid markets, another important dimension of a bank's being able to meet its obligations.

Credit is given for liquidity support mechanisms provided by the government, like access to funds from the central bank or deposit insurance programs, which tend to stabilize bank funding.

Capital

Any review of capital adequacy for a bank necessarily begins with governmental regulation, as countries have drafted their own interpretation of BIS capital guidelines or have other capital requirements. As these regulations may limit the flexibility or growth of the system, the establishment of minimum capital levels is frequently an important rating consideration. Standard & Poor's starting point, therefore, is a discussion with the appropriate regulators. In general, however, regulators aim to protect bank depositors, while Standard & Poor's is looking to timely repayment of principal and interest for debtholders and counterparties. Thus, while it is important that a bank meet the capital requirements of its domestic regulators, Standard & Poor's looks at a bank's capital structure in a broader context and does not include in its capital adequacy computations certain instruments that can only absorb losses in a reorganization or liquidation scenario.

After all of the necessary information is compiled, Standard & Poor's examines the bank's capital structure in both domestic and international contexts. Extensive use of risk-adjusted capital adequacy analysis, as well as the more traditional balance sheet measures are employed. With regard to international comparisons, adjustments are made in light of differing accounting and financial practices in order to make the entities' ratios as comparable as possible. However, the judgment of capital adequacy is also greatly influenced by the

perception of relative profitability, risk profile, and asset quality.

Earnings

In assessing profitability, key considerations are earnings levels, trends, and stability—that is, the long-term, core earnings power of a company. Standard & Poor's computes the ratio of earnings according to various definitions: operating, pretax, net income, etc., to average total assets, earning assets, and risk-adjusted assets. Additonally, net interest and net income margins are examined as are measures of efficiency. Reasons for performance in specific periods are analyzed and discussed, and a determination is made as to whether historical results are an accurate indicator of future performance. These same ratios are, with appropriate accounting adjustments, compared with those of banks of similar size and type in other countries.

Loan loss practices differ from country to country; thus, the loan loss provision may sometimes be considered a discretionary item, as opposed to an actual operating expense. Specific provisions are usually treated differently from general. Specific tax treatment may also have a major impact on "bottom-line" net income. In some countries, banks are beneficiaries of significant permanent tax benefits on lending in certain sectors. In others, there are opportunities for tax deferrals, such as through depreciation or loan loss provisions. Therefore, whether pretax or after-tax profits are emphasized will vary among countries.

Bank Rating Analysis Methodology Profile

Economic Risk

- Size of the economy, the basis of the economy, and its vulnerabilities;
- Growth prospects for the economy and the rate of monetary and credit growth relative to economic growth;
- Dynamics of savings and investment in the economy; sensitivity to reversals of foreign portfolio investment;
- Structure and overall financial strength of the corporate and personal sectors;
- Openness of the economy, the extent to which its performance is correlated with that of neighboring countries and other trading partners, and the strength and cyclicality of trading partners' economies;
- Typical business cycle: volatility of the economy as measured by the peak-to-trough variation in GDP; typical peak-to-trough variation in unemployment, asset prices (including real estate), and bankruptcies; structural changes in the economy that could cause peaks and troughs to change;
- Structural problems facing the economy, the correction of which may require policies that depress economic activity (e.g., structural fiscal deficits, structural current account deficits, structurally high inflation, a lack of international competitiveness in important sectors of the economy);
- Constraints on policymakers' ability to pursue appropriate countercyclical policies; and The country's political stability.

Industry Risk

Structure

- The basic structure of the banking system, which includes the number and relative sizes of institutions and restrictions on geographic or product expansion;
- Proportion of finance in the economy that is intermediated through the banks; nonbank competitors in the market and the extent to which they pose a serious challenge to the banks in their role as intermediary in the economy;
- Depth of publicly traded capital markets and the trends in this area;
- Dynamics of inter- and intra-industry competition, barriers to entry, expectation of change, degree of disintermediation in industry;
- Consolidation trends in banking system, the number of banks and branches in relation to the population, and impediments such as labor laws that negatively impact the bank's ability to reduce overheads;
- Strategic stakes in industrial companies and types of benefits and risks posed by these holdings;
- Extent to which political or other interests are able to influence the decision-making process at the bank;
- Quality and transparency of accounting and reporting systems and the quality of external auditing; and
- Strength and efficiency of country's legal system.

Customer base

- Price sensitivity and level of sophistication of the customer base;
- Financial strength of the personal sector and the level of social benefits in the country in question; and
- Relationship between banks and corporate borrowers.

Regulation and deregulation

- State, national, international regulatory, and legislative framework, including current and potential initiatives;
- Regulatory structure; level and quality of supervision, and the degree of regulatory independence types of reporting by banks to the regulatory authorities. Actions authorities are empowered to take measures to avoid problems at banks and avert imminent bank failures; the track record of regu-

lators in handling individual bank or systemic banking crises; present attitude of regulators with regard to providing liquidity and solvency support to banks and other types of financial institutions, and expected changes, if any;
- Form of deposit insurance, if any;
- Government's philosophy of laissez faire or interventionism with respect to banks and the corporate sector and the likely changes in this attitude; and
- Process of deregulation, areas within the financial system that have already been deregulated, further steps expected, time frame for deregulatory process and expected impact on various market segments.

Ownership structure of banks
- Degree of government ownership within the banking system, the extent to which government-owned banks perform any special public sector role or compete on an equal footing with private sector banks, the extent to which government involvement in the system affects the competitive dynamics in the banking market; and
- Degree of ownership of banks by corporate groups or individuals, and advantages and disadvantages of or dangers stemming from these relationships.

Market Position
- Bank's market shares in key businesses and the size of those markets;
- Real advantages stemming from bank's market position (e.g., pricing power, funding base, quality of business, etc.); and
- Vulnerability of market position.

Diversification
- Diversity of products/business lines/customer base;
- Geographical spread of bank's business base;
- Economic diversity of bank's home market(s); and
- International diversification: size and extent to which adds real franchise value.

Management and Strategy
- Organizational structure: centralized/decentralized, managerial efficiency;
- Quality and depth of management: depen on key personnel, continuity, line of succession, strength of middle management, management's relationship with regulators, ability to manage through disruptions/adversities in primary markets and the ability to manage new business lines;
- Independence of bank management: influen shareholders or the government/political parties on strategic or day-to-day decisions;
- Quality of planning process: (financia strategic);
- Credibility of management: (comparison of performance with budgets/plans);
- Logic and risk of strategic direction;
- Growth (external versus internal, merge acquisition planning, track record of past acquisitions, and acquisition; and financing policies and practices).

Accounting
- Accounting principles used, and differences from IFRS or U.S. GAAP.
- Sphere of consolidation, including financial and funding subsidiaries, joint ventures, special purpose vehicles, nonfinancial subsidiaries, securitization conduits, and participations.
- Accounting for past due loans, restructured loans and workouts, other problem loans, foreclosed and other problem assets, commitments, and contingencies.
- Adequacy of problem asset coverage, including provisioning policy and valuations.
- Securities valuation policies, differences between book and market values, impairment charges, and hedge accounting practices.
- Valuation of other balance-sheet items, such as real estate, deferred tax assets, intangibles, foreclosed assets, and derivatives.
- Overall quality of accounting for earnings, considering the impact of special and nonrecurring items, accounting changes, and other smoothing techniques.
- Off-balance-sheet items, including pensions and other post-retirement benefits, contingent liabilities, and derivatives.
- Revenue recognition policies, including interest accrual on problem loans and securities, fee income, and income from securitizations.
- Expense recognition, including timeliness of loss provisions, impairment charges, pension expenses, deferred taxes, and stock-based compensation.
- Use of expense reserves (including restructuring), their materiality, and movements.
- Realized and unrealized gains on sales of investment securities, trading, and hedging gains and losses.
- Inflation accounting, if relevant.

Credit Risk

- Structure of balance sheet, including relative proportion in different low-credit risk assets (e.g., government bills or interbank deposits) compared with higher-risk assets (e.g., loans or equities);
- Fixed-income securities (breakdown by type, largest positions, and market value and maturity structure);
- Equity securities (breakdown by economic sector, largest exposures, proportion of investment portfolio relating to previous underwriting positions, investment strategy, book value compared with market value);
- Credit portfolio broken down by maturity, loan type, collateral, customer base, economic sector, size, currency, and country;
- Concentrations of credit risk, such as large exposures to specific industries, markets, and individual borrowers, or in specific loan types;
- Problem loans: large problem-credit exposures, levels in and changes of nonperforming assets, past-due loans, restructured loans and other problem-asset categories; and expected future trends;
- Loan loss reserves, broken down by type, such as general and specific, reserves against on- and off-balance sheet exposures, taxed and untaxed; reconciliation of each type of loan loss reserve over the past five years, showing new provisions, liquidations of provisions, charge-offs and recoveries; and
- Reserving policy and adequacy.

Market Risk

Structural risks

- Management's philosophy regarding asset and liability management and balance sheet structure;
- Levels of interest rate, foreign exchange, and equity risks in the balance sheet;
- Role of Treasury Department and objectives and risk appetite;
- Reasons for structural risk: legal restrictions, regulatory requirements, limitations of local funding or hedging markets, or position-taking;
- Use of noncash market instruments, such as futures, forwards, and swaps; and
- Past and future position-taking and balance sheet flexibility.

Trading risk

- Description of current organization
- Trading strategy on group basis and by individual products;
- Review of historic trading activities by product and market, including size of positions, volatility of net revenues, and profitability.
- Proportion of revenues from sales, jobbing, arbitrage, and directional views. Liquidity of markets in which bank deals;
- Perceived market strengths and weaknesses; market position and appetite for position-taking;
- Future product and market expansion plans; and
- Breakdown of products by currency, credit quality, volume, and maturity.

Funding and liquidity

- Composition of bank's funding (core retail compared with other retail, semiprofessional, and professional markets);
- Diversity of funding sources, such as deposits broken down by geography and size, access to and importance in local and national capital and money markets;
- Flow of funds (net deposit flows, deposit maturities, stability of funding);
- Asset liquidity, which includes short-term deposits and securities, long-term marketable securities, extent of pledged assets, ability to sell or securitize loans; liquidity facilities at central bank and other sources of asset liquidity; and
- Management's philosophy with regard to liquidity, as well as liquidity planning.

Capitalization

- Capital composition. Quality of capital: levels of common equity, preferred stock, convertibles, subordinated debt, perpetual debt, minority interests, goodwill and other intangibles, revalued assets, unrealized capital gains, loan loss reserves in excess of probable losses, and other types of quasi-equity. If a holding company structure is involved, level of double leverage;
- Comparison of capital with perceived level of risk in institution's business: BIS risk-weighted assets adjusted for high credit risk assets (e.g., equities or specific types of lending) or market risk activities;
- Bank's capital position with respect to domestic capital requirements and BIS requirements;
- Dividend payout ratio, internal growth rate of capital;
- Absolute size of bank's capital base and its ability to absorb extraordinary, unexpected losses that could arise, given the bank's business mix;

- Ability to tap external sources of capital and long-term funding. Bank's market capitalization compared with book value; and
- Management's philosophy regarding risk asset and loan leveraging of its capital base, and capital projections.

Earnings

- Net interest income: margin trends and ability to maintain volume;
- Noninterest income: diversity and sustainability of other income sources and growth potential;
- Operating expenses: level and trend of overhead relative to the company's business mix and distribution network, degree of automation in comparison to peers', ability of earnings to meet current and future needs;
- Loan loss provision (current level, past volatility, and ability to absorb future requirements);
- Net operating income analysis (level and trend);
- Quality of earnings: proportion of income recognized as core earnings, proportion of earnings from trading activities, ability to price risk into various products, and actual return on the perceived risk in the book;
- Impact of extraordinary gains and/or charges;
- Tax position: management's philosophy toward tax payment position and cushion, including historical and future use of net operating loss carrybacks and carryforwards, other strategies that affect tax position;
- Impact of inflation on earnings, return on equity versus the reporting period's inflation rate;
- Earnings outlook, year-to-date budget versus actual, projections for following year and medium-term plan; and
- Quality of bank's accounting practices.

Risk Management

Credit risk

- Underwriting criteria, the approval process for different types of products or customer groups, for example, (fixed-income securities, investment or trading equities, mortgage loans, consumer loans, and corporate loans), delegation of approval authorities down through organization, and collateral valuation;
- Monitoring of credit exposures: control at time of loan disbursement; review function; internal rating system; delegation of responsibility for identifying potential problem exposures; role of audit department; and
- Problem assets: Responsibility for follow-up; collections; aggressiveness with which problem credits are handled; collateral foreclosure policies.

Market risk

- Senior management's understanding of market-risk issues and its involvement in risk management decisions;
- Membership of the asset-liability committee (ALCO) or other decision-making body, reports filed with ALCO, how its decisions interact with daily risk management, limits set by ALCO for different types of risk;
- Information technology: description of software used to monitor structural and trading risks, adequacy of computer systems in relation to the current and projected levels of market risk inherent in the bank's business, as well as management's risk appetite;
- Strategy regarding intentional position-taking, limits, and authorities required for breaching limits;
- How traders and desk heads monitor positions and how the system interacts with overall risk management system;
- Hedging strategies;
- Description of method(s) by which market risk is measured and assumptions used;
- Stress testing: frequency and assumptions, flexibility;
- Back office and operations: organization vis-à-vis trading floor, valuation of positions, and disaster recovery;
- Audit function;
- Accounting policies; and
- Track record, including major errors in recent years

Financial Flexibility

- Ability to access various funding markets and raise capital from public or private sources, generally, and in a difficult environment;
- Internal reserves that could be used to cover unexpected losses;
- Franchise value of discreet businesses, assets where the market value is significantly greater than the book value, ability to sell, likely value in stressed situations; and
- Likelihood of support from governmental or private shareholders.

Bank Ratios

Summary Statistics

Assets. Reported book assets. Includes letter of credit, guarantees and acceptances in Japan and other Asian countries. Not adjusted for revaluations.

Regulatory risk assets. Risk-adjusted assets as defined by the relevant regulatory body.

Loans. Loans and leases net of loss reserves and unearned income (except in U.S. and Australia, where loans are before loss reserves and include other real estate (ORE), i.e. foreclosed assets). Excludes guarantees and acceptances except in Australia and Japan.

Customer deposit. Deposits other than interbank deposits. In the U.S., this category denotes core deposits (domestic deposits under $100,000).

Total published equity. Total shareholders' equity as reported, including preferred stock (excluding auction rate preferred) and minority interest.

Adjusted common equity. Common stockholders' equity, including minority interest, less goodwill and dividends. Excludes revaluation accounts not arising from inflation accounting (including unrealized gains/losses on securities available for sale in the U.S.).

Adjusted total equity. Total equity, less goodwill, dividends and revaluations, plus preferred stock (up to limits defined by Standard & Poor's) and excess reserves (loans loss reserves in excess of one-third nonperforming assets in U.S.).

Revenues. Net interest income (in U.S. taxable equivalent, including loan fees) plus noninterest income excluding gains on sale of nonloan assets and long-term equity holdings. In the U.S. revenues excludes gains from sale of nontrading securities.

Noninterest expenses. Noninterest expenses adjusted for restructuring charges and other nonrecurring items. Including depreciation and amortization expenses.

Net operating income before loans loss provisions. Revenues minus noninterest expenses.

Loan loss provisions (LLP). Loan loss provisions (net new) added to reserves (general and specific), including current period net charge-offs where applicable.

Pretax income. Pretax income as reported.

Net income. Net income as reported before preferred dividends and minority interest (and items reported below the line in the U.S.).

Asset Composition

Domestic residential real estate. One- to four-family first, second, and revolving mortgages.

Other domestic personal loans. Loans to individuals, including credit card and installment loans.

Domestic commercial real estate and construction. Loans secured by real estate other than residential mortgages, including construction loans, commercial mortgages, plus real estate-related loans not secured by real estate, plus ORE.

Other domestic commercial loans. Domestic commercial and industrial, financial institution, agricultural, government, and other loans.

Foreign loans. Commercial and personal loans.

Profitability

Revenues/averages assets. Revenues divided by average (daily averages if available, otherwise mean of current and prior period-end) assets as reported.

Net interest income/average assets. Net interest income divided by average assets.

Noninterest income/average assets. Noninterest income divided by average assets.

Noninterest expenses/average assets. Noninterest expenses divided by average assets.

Net operating income before LLP/average assets. Revenues minus noninterest expense divided by average assets.

Net operating income after LLP for loans losses/average assets. Revenues minus loans loss provisions, minus noninterest expense divided by average assets.

LLP/average assets. Loan loss provisions divided by average assets.

Pretax profits/average assets. Pretax income as published divided by average assets.

Net income/average assets (ROA). Net income divided by average assets.

Revenues/average risk-adjusted assets. Revenues divided by average regulatory risk assets.

Net income/average risk-adjusted assets. Net income divided by average regulatory risk assets.

Net interest income/revenues. Net interest income divided by revenues.

Noninterest income/revenues. Noninterest income divided by revenues.

Noninterest expenses/revenues. Noninterest expenses divided by revenues.

Net operating income before LLP/revenues. Revenues less noninterest expenses divided by revenues.

Net operating income after LLP/revenues. Revenues less Loans loss provisions less noninterest expenses divided by revenues.

LLP/revenues. Loans loss provisions divided by revenues.

Pretax profit/revenues. Pretax income as reported divided by revenues (before adjustments included in definition above).

Net income/revenues. Net income divided by revenues (before adjustments included in definition above).

Net interest income/average earning assets. Net interest income divided by average (daily if available) interest earning assets.

Net income/average adjusted common equity (return on common equity). Net income (before below-the-line extraordinary items in the U.S.) minus preferred dividends divided by average adjusted common equity.

Liquidity

Total deposit/total liabilities. Total deposits including those due to banks divided by total liabilities.

Loans/customer (core) deposits. Loans divided by customer or core deposits.

Loans/assets. Loans net of reserves for loan losses divided by assets.

Net interbank deposits (Fed funds)/total liabilities. Deposited due to banks (in U.S. Fed funds bought) minus deposits due from banks (Fed funds sold) divided by total liabilities.

Capital

Adjusted common equity/assets. Adjusted common equity divided by assets.

Adjusted common equity/risk assets. Adjusted common equity divided by regulatory risk assets.

Adjusted common equity/loans. Adjusted common equity divided by loans.

Double leverage. Parent company equity investments in subsidiaries (bank, nonbank, holding companies, including goodwill) divided by total consolidated shareholders' equity.

Equity + loans loss reserves/loans. Total unadjusted equity plus loan loss reserves divided by loans net of unearned income plus ORE.

Tier I equity/regulatory risk assets. As reported by company according to regulatory prescription.

Adjusted total equity/assets. Adjusted total equity divided by assets.

Adjusted total equity/regulatory risk assets. Adjusted total equity divided by regulatory risk assets.

Dividend payout ratio. Dividends on common stock divided by net income minus preferred dividends.

Asset Quality

LLP/average loans. Loans loss provisions divided by average loans (daily average or best available average).

Net charge-offs/average loans. Charge-offs minus recoveries divided by average loans.

Loan loss reserve/gross loans. Total loans reserves (allowance), including both general and specific reserves divided by gross loans net of unearned income.

Loans loss reserve/risk assets. Total loan loss reserves (allowance) divided by regulatory risk assets.

Nonperforming assets (NPA)/loans plus ORE. Nonaccrual and restructured loans (plus 90-day past-due loans in the U.S.) before deducting loan loss reserves, plus ORE divided by gross loans net of unearned income plus ORE.

Net NPA/net loans. Nonaccrual and restructured loans (plus 90-day past-due loans in U.S.) minus total loss reserves divided by loans net of unearned income and total loans reserves plus ORE.

Loans loss reserve/NPA. Total loan loss reserve divided by nonaccrual and restructured loans (and 90-day past-due loans in the U.S.) before deducting loans loss reserves plus ORE.

Rating Finance Companies

The independent finance industry issues debt and lends the proceeds to individuals (consumer finance companies) and corporations (commercial finance companies) on both a secured and unsecured basis. Unlike the commercial banks, whose deposit-taking ability adds significantly to funding availability, finance companies rely almost exclusively on institutional borrowings and access to the public debt markets for funding. Consequently, the ability to access the short-, medium-, and long-term markets at competitive rates is critical to their ongoing viability.

Historically, the finance company industry has carved out lending niches in the consumer and commercial markets, apart from the mainstream lending dominated by commercial banks. But continuing development of the capital markets and competition from across the globe have pushed commercial banks toward the higher-yielding lending businesses that traditionally were the domain of the finance company. Similar market pressures and opportunities have introduced other nontraditional competitors into the fray. As a result, pricing has come under severe, often irrational pressure in the scramble for market share.

In response, finance companies have had to reevaluate operating strategies, and many have found it difficult to achieve optimal managerial and economic efficiencies. This has precipitated the restructuring or sale of many companies.

Defending Niches

With virtually all finance company business lines coming under greater competitive pressure, defining strategic initiatives and backing each with the necessary resources has become imperative for success. On the consumer side of the business, the ability to compete in various product offerings often is dictated by operational efficiencies and economies of scale. For example, marketing and processing costs are causing the credit card business to become concentrated toward the low-cost producers. Similarly, the traditional distribution backbone of the consumer finance industry—the store-front loan office—is being challenged by more efficient telemarketing and direct mail avenues. Companies that choose to maintain large branch networks will be under pressure to increase productivity.

On the commercial finance side, the focus on core businesses versus the “shotgun” approach is evidenced by the growing popularity of target marketing and the development of niches. As part of this strategy, commercial finance companies establish a strong presence and expertise in a particular industry or type of equipment. This enables the niche player to provide more specialized service.

These commercial finance companies generally are not the lowest-cost providers of financing or leasing services. In most instances, however, price is a secondary consideration for the customer; high-quality, expert service is of paramount concern. Industry and equipment expertise at a leasing company also provides a more successful and effective remarketing capability, resulting in higher realized equipment values relative to booked residuals. These residuals give the lessor the option of pricing the product more aggressively relative to competitors, or providing a higher level of service to increase or, at least, maintain market share.

But there are negative aspects of a niche strategy, the most obvious being the risk of concentration. Reliance on a particular sector or specialized equipment type can become an albatross if there is a downturn in that industry or declining values on the equipment. This is apparent among major lenders in energy or agriculture, which have experienced serious setbacks. Another negative aspect occurs when competitors, observing the favorable returns and volume generated by other niche operators, rush to invade those sectors, often with unrealistic pricing.

Asset Quality

Asset quality is the primary consideration when assessing credit risk at a finance company—as with banks. However, given the higher margins and commensurately greater risk typically associated with finance company assets, it is impossible to separate asset quality from the all-in cost profitability of a particular asset or the capital needed to prudently support it. Understanding these crucial relationships begins with analysis of the finance company's receivables.

Standard & Poor's analyzes finance company portfolios on both a qualitative and quantitative basis. The qualitative analysis encompasses the composition of the portfolio with respect to type, mix, and diversity of receivables and evaluation of growth prospects. Standard & Poor's assesses underwriting standards, as well as basic characteristics of receivables such as consumer versus commercial and secured versus unsecured loans. The size of the portfolio on both an absolute and relative basis is another important consideration. There is less risk associated with a portfolio that is diversified in terms of geography, customer base, and type of product, manufacturer, or supplier. Management's philosophy regarding concentrations is reviewed, along with its growth plans. Finally, the basic characteristics of the portfolio are examined over periods of both growth and contraction.

As part of its quantitative analysis, Standard & Poor's measures receivables in terms of delinquencies, charge-offs, and recoveries. Since finance companies have broad latitude in defining these categories, explanations of policies with respect to payment definition, charge-offs, extensions, and rewritten business are essential to make comparisons meaningful. In determining the adequacy of reserves for losses, Standard & Poor's looks at reserve coverage levels and trends relative to peer groups for certain portfolio characteristics. The methodology for establishing reserves is assessed. Reserve sufficiency is evaluated in light of underwriting standards, the portfolio mix, and economic environment.

Leverage

Leverage, or the amount of debt in relation to the capital base of equity plus reserves, is a crucial factor in the rating process. When analyzing leverage, Standard & Poor's uses a building-block approach to arrive at a composite asset risk profile for any one particular finance company. Using industry-wide data, relative risk of various subportfolios is derived. In turn, leverageability of each subportfolio is set forth within each specific rating category. It is important to note that the leverage guidelines are generic starting points. Actual firm-specific guidelines depend on all the interrelated factors—qualitative and quantitative—that compose each issuer's operating track record.

Asset-Liability Management

In reviewing the asset-liability function, Standard & Poor's evaluates the level, trend, and stability of the net interest margin and the flexibility inherent in the pricing structure. As with any financial institution, the means by which management measures the impact of interest rate changes on profit, their tolerance for acceptable risk levels, and the techniques employed to moderate these risks are discussed and reviewed.

Historically, finance companies have borrowed exclusively from the commercial paper and term debt markets, often with laddered term debt structure determined to match anticipated asset maturities. Changes in debt structure often were limited to shifts in the mix of short- and long-term debt as interest rate cycles changed. The growth of the intermediate-term debt market has provided additional flexibility.

The diversification of fund sources is beneficial as it adds liquidity and funding stability. Unlike banks and savings and loans, finance companies do not carry investment portfolios and, therefore, lack this dimension of asset management. Standard & Poor's reviews the debt structure maturities relative to both asset maturities and expected cash flows to judge the liquidity inherent in the balance sheet. A firm's borrowing capacity, such as bank lines or the potential to establish securitized or collateralized borrowing arrangements, also is discussed.

Profitability

Increasing competition and tax law changes are pressuring yields downward in business traditionally developed by finance companies. As such, profitability is becoming more dependent on operating efficiencies, portfolio quality, and margin protection. Profitability is viewed on an historical basis and relative to peers. Growth rates, yields, spreads, and returns are reviewed. ROA, the primary ratio, should be viewed within the context of risk and reward. This is particularly important as competitive pressures on yields continue to force many

finance companies to expand their lending activities into higher-risk segments. Finance companies previously lending to Fortune 1,000 businesses, for example, have had to expand their markets to Fortune 2,000 businesses. Therefore, operating efficiency is becoming a more crucial measure of a firm's ability to generate profits in an environment of intense price pressure. Standard & Poor's expects operating efficiency increasingly to become a key variable in the analysis of profitability.

Ownership/Affiliation

By drawing on its parent company's strength through a support agreement, a noncaptive finance subsidiary can raise its rating above that attainable on its own, often as high as its parent's. As a result, the subsidiary gains a competitive advantage over other independent finance companies, which operate within more stringent guidelines to maintain their credit quality.

There are no boilerplate support agreements to ensure a high rating. But the most common agreements contain minimum net worth maintenance and income and fixed charge coverage maintenance requirements. These usually have covenants that set a maximum debt-to-equity ratio or a minimum current assets-to-current liabilities (liquidity) ratio. Also included is an assurance that the parent will maintain 100% ownership of the subsidiary.

Support agreements can be closed or open ended. Closed-end agreements have a maximum dollar contribution or a termination date. Open-end agreements place no limitation on dollar contribution and, therefore, are viewed more favorably. However, Standard & Poor's recognizes that a parent may be legally restricted from providing open-dollar investments in its subsidiaries.

Noncaptive finance subsidiaries that lack formal support agreements but have a history of parental support also may receive a higher rating than their standalone performance would indicate.

Finance Company Rating Analysis Methodology Profile

Industry Risk

The relationship of the industry to the economy and the possible impact of various economic scenarios, including the ramifications of legislation. More specifically, this includes:

- Importance of the industry within the economy
- Influence of inflation
- Need for capital
- Legislation and regulation
- Accounting changes and tax considerations

Asset Quality

An analysis of the composition of the portfolio regarding type, mix, and diversity of receivables, and evaluation of growth prospects.

- Basic receivables characteristics
  1. Consumer versus commercial
  2. Subportfolios
  3. Size: absolute and relative
  4. Off-balance sheet risk
- Diversity
  1. Geographic
  2. Borrower/lessee
  3. Type of product, manufacturer, supplier
  4. Internal guidelines limiting concentrations
  5. Lending criteria
- Audit procedures and controls
- Growth
  1. Relative to peer group
  2. Fundamental portfolio characteristics during periods of either rapid growth or decline
  3. Portfolio performance regarding a quantitative assessment of the credit quality, by subportfolio
  4. Strategy for expansion beyond current market
- Credit quality
  1. Contractual delinquencies
  2. Charge-offs
  3. Foreclosures/repossessions
  4. Recoveries
  5. Policies regarding payment definition, charge-offs, extensions, and business rewritten
- Reserve adequacy
  1. Coverage levels, trends relative to peers, and portfolio characteristics
  2. Methodology for establishing reserves
  3. Adjustments reflecting changes in the portfolio and the economic environment
- Liquidity
  1. Salability of receivables, time frame, market size, discounting
  2. Realizable value of owned equipment and property
  3. Asset securitization

Nonfinance Activities

An evaluation of nonfinance-related businesses.

- Characteristics of activity
  1. Risk versus return
  2. Management participation
  3. Prospects
- Appropriate capitalization
- Plans for future diversification
  1. Acquisitions
  2. De novo expansion
  3. Divestitures

Capitalization

Analysis of capital leverage, debt maturity, and financing requirements.

- Appropriateness of total leverage in relation to generic guidelines and asset quality
- Mix of fund sources
- Debt servicing capacity
- Equity quality
  1. Goodwill and intangibles
  2. Equity investments
  3. Excess of inadequate loss reserves
  4. Understated assets and off-balance sheet liabilities
- Financing needs and plans
  1. Short- and long-term financing requirements
  2. Growth flexibility and access to capital markets
  3. Projected changes in leverage

Asset-Liability Management

Examination of the company's philosophy and management of assets and liabilities, regarding maturity and interest rate sensitivity.

- Interest rate sensitivity: assets versus liabilities
  1. Percentage of floating-rate assets and liabilities, management philosophy toward interest-sensitive assets and liabilities on the balance sheet, and use of interest rate swaps
  2. Percentage of assets where the interest rate can be fixed at specific levels
- Company policy regarding the matching of interest-sensitive assets and liabilities, and degree of tolerance for mismatching between assets and liabilities
- Maturity structure: assets and liabilities
  1. Nominal and average life
  2. Actual experience

Profitability

Review of the company's performance based on profitability measures.

- Trend of key profitability measures—growth, yields, spreads, and returns, both absolute and relative to those of peers
- Level and volatility of profitability
- Expectations regarding future operating results in relation to past performance and that of peers

Ownership/Affiliation

Discussion of the degree of strength derived from parent support.

- Nature of relationship
  1. Legal
  2. Financial
  3. Management
- Past support, and ability and willingness of owner-affiliate to provide added protection in the future
- Ownership-affiliation: strength or weakness

Management

Evaluation of management's performance, policies, controls, planning, and depth.

- Strategic planning controls
- Response of management to changing conditions
- Management credibility
- Management philosophy toward acquisition, diversification, portfolio risk, and leverage

Accounting

Analysis of accounting methods and comparison with industry practices.

- Auditor's report
- Conservative versus liberal accounting practices
- Write-off method and reserve for losses
- Treatment of intangible assets
- Accounting practices of nonfinance activities
- Off-balance-sheet liabilities and understated assets

Finance Company Ratios

Operating Ratios

Return on average assets. Net income (annualized) divided by average (current-period and prior-year-end) assets.

Adjusted return on average assets. Income before extraordinary items (annualized) divided by average (current-period and prior-year-end) assets.

Return on average equity. Net income (annualized) divided by average (current period and prior year-end) equity.

Operating expenses/average assets. Total expenses less loss provision and interest expense divided by average (current period and prior year-end) assets.

Operating expenses/revenues. Total expenses less loss provision less interest expense divided by total revenues.

Interest coverage. Pretax income plus interest expense divided by interest expense.

Net interest margin. Interest income less interest expense (annualized) divided by average (current period and prior year-end) receivables.

Return on average receivables (NUI). Net income divided by average (current-period and prior-year-end) receivables.

Asset Quality

Reserves/receivables (NUI). Loss reserves divided by on-balance sheet receivables net of unearned income.

Reserves/delinquencies plus nonaccruals. Loss reserves divided by delinquent and nonaccruing receivables.

Delinquencies/gross receivables. Sixty-plus-day delinquencies divided by gross receivables.

Impaired-asset ratio. Delinquencies plus nonaccruing receivables plus foreclosed assets divided by gross receivables plus foreclosed assets.

Portfolio credit loss. Net charge-off divided by average (current-period and prior-year-end) receivables.

Credit loss coverage of provisions. Loss provision divided by net charge-offs.

Credit loss coverage of reserves. Loss reserves divided by net charge-offs.

Receivables growth. Current-period receivables divided by prior-equivalent-period receivables.

Net losses/liquidations. Net credit losses divided by prior year-end receivables plus volume (current period) receivables less charge-offs.

Loss recovery ratios. Recoveries divided by gross losses. Repossessions and foreclosures divided by gross receivables.

Capital Adequacy (Leverage)

Debt/equity. Total recourse debt divided by equity.

Debt/equity plus reserves. Total recourse debt divided by equity plus loss reserves.

Debt/equity less intangibles plus reserves. Total recourse debt divided by equity less goodwill plus loss reserves.

Short-term debt/total capitalization. Deposits, commercial paper plus other short-term debt divided by total recourse debt plus preferred stock and equity.

Long-term debt/total capitalization. Senior and subordinated recourse debt divided by total recourse debt plus preferred stock and equity.

Equity/total capitalization. Common stock divided by total recourse debt plus preferred stock and equity.

Dividend payout ratio. Dividends divided by net income.

Preferred stock/equity. Preferred stock divided by equity.

Intangibles/total equity. Goodwill divided by total equity.

Rating Securities Companies

The securities industry is characterized by intense competition, excess capacity, and cyclical performance that is very closely aligned with the ups and downs of securities markets. Firms with clear strategies and top-drawer risk management, however, can prosper and enjoy relatively high credit ratings as compared to many other financial services firms.

Within the securities industry there are two basic distribution channels: retail and institutional. Although both business lines are affected by the vagaries of investment markets, strategies and risks are quite different for each of them.

As a group, securities firms are essential to the functioning of capital markets, allowing buyers and sellers to find common prices, either through organized securities exchanges or over-the-counter transactions. They play a critical role in raising debt and equity for corporations and governments and also provide advice on mergers, acquisitions, divestitures, and other financial restructurings.

Standard & Poor's Ratings Services securities firms ratings take into account business risks, franchise strength, liquidity management, capital adequacy, and earnings performance, as well as other factors.

Cyclicality

Standard & Poor's short- and long-term ratings reflect default risk in either the short or long term, respectively. The ratings are meant to take into account the cyclical nature of an industry and, thus, change only minimally, if at all, through the peaks and troughs of a typical business cycle. This philosophy is reflected in the stability of ratings through industry cycles.

For the securities firms, to rate through a cycle means that the ratings depend on particular judgments about a "normal" cycle and about markets, industry structure, and securities firms themselves. Where most other industries face fairly predictable cycles of falling volumes and gradual inventory adjustment, securities firms face cycles that often include both sharp declines in prices and decreasing business volumes. In addition, no two cycles in the securities industry are alike, and Standard & Poor's continuously reviews whether cyclical downturns trigger changes in markets, industry structure, or securities firms' adaptability that call into question industrywide ratings.

During the past two decades, the securities industry has faced many cyclical downturns, all of which are unique in terms of the specific cause and the duration. These downturns are not always coincident with economic recessions. In addition to the recession of 2001, which was ignited by the bursting of the equity bubble in 2000, cyclical challenges for the industry have included the sharp rise in interest rates in 1994 and the Russian default/LTCM crisis of 1998. While it is impossible to predict the shape of the next cycle, it is certain that cycles will occur and that they will be accompanied by illiquidity in some major markets.

Competition in the securities industry leads to pro-cyclical activity so that the seeds of the next downturn are sown during the upswing in the cycle. Efforts to continue profit growth in good times result in greater risk-taking through ever larger positions, exotic structures, new geographic exposures, and a general loosening of credit terms. Regulatory compliance can also suffer during times when the industry is highly profitable. External events often trigger a topping out of a cycle and inexorably leave some participants exposed in unwanted positions and overextended cost bases. Liquidity may disappear in certain markets and price correlations can change rapidly, making once reliable hedges completely ineffective.

Through a downturn in securities markets, firms in the industry often retrench, cutting costs and restructuring business lines. Firms with a high degree of business line diversification and/or a focus on less-volatile activities tend to fare best through a downturn. Generally, however, there are large swings in profitability for the industry through a cycle.

It is because of the higher variability of performance through a business cycle that

ratings on securities firms, in general, tend to be lower than those on the strongest commercial banks, especially for those banks that have high proportions of stable revenue sources.

Change

Securities firms have ridden a wave of change in the capital markets. Change has been spurred by technology, disintermediation, demographics, and regulation. The consequence of external and internal change has been the growth in the number and size of competitors. As the capital markets around the world continue to develop, the need for capital size becomes more acute. At the same time, European universal banks are putting more capital into their capital markets activities. Additionally, U.S. commercial banks have encroached on the traditional turf of U.S. Securities firms and have gained market share in underwriting and M&A advisory. Competitive pressures from European and U.S. banks have resulted in overcapacity in the securities industry and declining margins.

Change has also engendered the globalization of capital markets. Given the increasing technological capabilities of moving money and information across borders, intermediaries need to be able to serve the cross-border demands of issuers and investors. The global infrastructure increases fixed expenses, but successful global penetration should lead to greater diversification and more stable revenues. There are increased risks that many different markets will fall in tandem in the short term, but the major individual markets will usually return to normal trading volumes to the degree that economic and monetary fundamentals are sound.

Complexity

As securities markets evolve to more efficiently allocate risks, securities firms lead the way with complex new products. Over the past decade we have seen a sharp rise in risk management products, which also have the downside of potentially producing large unexpected losses for the uninitiated. Securities firms manage their risks from products such as derivatives with increasing sophistication. However, at the same time, the "edge of the envelope" is constantly being pushed out. Managing product complexity will always be a challenge in the securities business because the highest returns, at least on an ex ante basis, are earned on products with risks that are difficult to price and to manage.

The pressure to continually increase EPS, especially when it is generally felt that markets are in a recovery phase, can result in new products being introduced without sufficient knowledge of their risks. A marginal player may see a quick avenue to increasing earnings in expansion into products such as long-dated derivatives for which there is no opportunity to hedge without significant basis risk.

Global expansion, diversification into new lines of business (such as asset management, retail brokerage, and consumer lending), and evolving regulatory regimes also serve to dramatically increase the complexity of managing a large securities firm. The emphasis on avoiding unpleasant surprises should be on enterprise-wide risk management, which takes into account all of the risks that a firm faces. Only with a very strong risk management structure as well as a culture that promotes active risk management can a securities firm stay on top of the challenges of complexity.

Consolidation

Consolidation has occurred in waves in this industry. Consolidation in the early 1980s was based on emergent demand for capital market instruments, as well as the huge debt issuance of the U.S. government, both of which fueled growth of the over-the-counter markets and the need for trading capital. There was a jostling among competitors to acquire the necessary skills to become broader-based competitors. Consolidation has also accompanied cycles where initially weaker players fell into the hands of their competitors, as did E. F. Hutton. Internationally, consolidation was triggered by major policy changes, like the "Big Bang" in London.

In the mid-1990s, consolidation was triggered by regulatory change. The U.S. Federal Reserve Board decided to liberalize affiliation between commercial banks and securities firms. The move set off a scramble for both intra- and interindustry combinations. As commercial banks put additional capital into the securities markets, the increased competition will likely sustain continuing consolidation.

The good news for the consolidators is that securities firms' balance sheets are marked-to-market on a daily basis and are made up of readily salable positions for the most part. The bad news for consolidators is that buying an existing franchise is very risky, because by integrating a target firm, an acquirer can very easily lose many of the key people they need to keep.

Securities Company Ratings Analysis Methodology Profile

External Factors

Economy

Securities firms need the fertile ground of a well-maintained economy to prosper. In evaluating these firms Standard & Poor's considers:

- Growth potential and capital-raising needs; openness of the economy; sensitivity to external economic factors, such as the terms of trade in single commodities; normal business cycle volatility as measured by GDP, unemployment, and bankruptcies;
- The credit cycle;
- Political stability; level of commitment to allowing private markets to allocate resources;
- Government intervention to maintain an overvalued or undervalued currency and the impact on capital markets by following a policy of incorrect valuation; institutional rigidities;
- Wealth accumulation processes, such as voluntary or mandatory pension plans, and investment constraints imposed on them; and
- Size and liquidity of capital markets; market structure (OTC or exchange-traded) stock market capitalization; transparency of markets; wide dissemination of information; ability to borrow securities to sell them short; settlement cycles and processes.

Cyclicality

Volume of new issuance and secondary trading is generally cyclical, but inflationary fiscal or monetary policies exacerbate the severity of cycles. Standard & Poor's does not make market projections that would feed into ratings, but tries to judge the kinds of cycles the industry in a given country will face and assess the capacity of a given firm to handle that kind of cycle. Standard & Poor's will focus on the following:

- Factors that affect the severity of cycles, including stop-and-go monetary policies and the regulatory regime;
- Private and government sector debt levels;
- A country's reliance on foreign investment and the character of that investment; and
- Historical cycles in issuance and trading volumes.

Volatility

Depending on inventory and investment policies (see Financial Policies and Profile section), market-price volatility may have important consequences. Standard & Poor's reviews the history of volatility in stocks, bonds, and other traded assets.

Industry structure

Generally, securities firms serve the basic function of distributing and trading financial instruments for customers, financing customer positions, and intermediating collateral. The importance of these functions to a given economy, the consequent size of the customer base, and the availability of substitute products or alternative suppliers will affect the approach to a rating.

The maturity of industry structure will depend in part on whether boundaries remain between various financial sectors. However, in many instances, countries have taken a "big bang" approach to liberalization of ownership or financial institution functionality, leading rapid-fire to new entrants and subsequent consolidation. Standard & Poor's reviews the following factors, as appropriate:

- Stability of the industry structure; number of players and relative size; barriers to entry and potential for new entrants; ability to exit without great cost; cost structures;
- Competition; prospect for alternative delivery mechanisms or substitute products (such as bank loans); fee structures;
- Importance of securities firms to the economy and the size of the customer base;
- Current methods of intermediating between capital raisers and capital suppliers; whether

securities firms offer bank-like products, like foreign exchange trading or commercial or consumer finance;
- Relative participation of retail or institutional investors;
- Ownership; involvement of governmental or quasi-governmental bodies; cross shareholdings and its potential consequences; and
- Institutional or governmental constraints on money markets and capital markets.

Regulation

The often-changing legislative and regulatory framework must be understood, as well as who the primary regulators are and what precedents exist in the regulation of securities firms. Standard & Poor's reviews:
- Regulation that prevents development of liquid money or capital markets; application of reserve requirements and their impact; existence of offshore markets and their implication on regulatory or institutional rigidities;
- Regulation of stock-trading commissions or other transaction costs;
- Regulations affecting the structure and functioning of securities exchanges;
- Regulatory examination policies and procedures;
- Presence of capital requirements that operate to prevent dividends of capital to holding companies; consequences of failure to meet regulatory capital requirements; and
- Regulations affecting interactions and relationships with customers and securities issuers, including mutual funds.

Litigation/reputational risk

This is a very important risk. Even where litigation risk may be low, reputational risk is becoming more important as standards of behavior become stricter. Standard & Poor's reviews, as appropriate:
- Litigation by retail or institutional investors;
- Extent of regulation of sales abuses; changes in regulatory or ethical standards;
- Extent of regulation to protect transparency of markets through rules against insider trading; and
- Severity of regulatory sanctions against a given firm.

Technology

Technology is one of the forces that has driven change in the capital markets. All-encompassing communication networks foster cross-border trading and investment, expanding the number of players in many markets, while greater computing power permits the development of more complex products. Standard & Poor's reviews, as appropriate:
- The pace of adoption of technology at securities firms and the degree of competitive advantage it may create;
- The prospect for new entrants resulting from technological change, such as Internet brokers; and
- The need for technological capital spending as a barrier to entry.

Franchise Value and Business Risk

Because securities industries are often characterized by different segments serving different types of customers with products whose growth potential, profitability, and cost functions vary markedly, comparisons need to be made between similarly situated firms.

Management and strategy

Determining and executing successful strategies, given the complex and ever-changing nature of the securities business, requires strong management. Both strategy and the management team charged with carrying out the strategy are reviewed. The components of the ongoing review of these two critical dimensions of success include the following, as applicable:
- The firm's ability to develop and attract top human resources;
- The firm's track record in integrating acquisitions;
- Management continuity and succession plans;
- Product and business line strategies;
- Strengths and weaknesses relative to those of competitors;
- Employee ownership and deferred compensation plans;
- Commitment to compliance systems to avoid potentially large legal claims; success in defending against litigation;
- Management level of knowledge and involvement in risk control; and
- Presence of governmental influence over decision-making.

Diversification

One of the key distinctions between larger and smaller firms is the degree to which smaller, less-diversified firms are exposed to great risk of business cyclicality, or changes in competitive frame-

work, regulation, taxation, or technology. It is also the case that certain downturns can result in more correlated business line performance than what may be anticipated by diversification strategies (e.g. the 2000-2002 downturn in securities markets). In trying to assess a firm's exposure to this panoply of external risks, Standard & Poor's reviews, as appropriate:

- The proportion of revenue contributed by commissions, trading, net interest income, asset management, or other;
- Review of internally reported business line segment revenues and pretax profitability; correlations between segments;
- Concentration of revenues in product lines, for example, high-yield bonds in the institutional setting or mutual funds in retail financial services;
- Concentration/dispersion of trading strategies or products;
- Geographic contribution of revenue and pretax profitability;
- Diversification between sets of customers, such as institutional, retail, discount, and high-net-worth individuals; and
- Periods during which anticipated diversification benefits evaporate (for example, Mexican devaluation in late 1994, LTCM crisis in 1998, and the bursting of the equity bubble in 2000).

Market position

This separates the firms with a sustainable business tied to growing capital markets or demographic opportunities from those that will only do well when volumes are cyclically strong. The sum of these parts should translate directly into better pricing power and higher margins compared to other firms. Depending on the firm's business, Standard & Poor's would examine, as appropriate:

- Size of distribution force;
- Any available measures of depth of customer relationships (for example, number of different products used by a client);
- Character of customer base; customer demographic and financial profile; customer turnover; number, growth, and average activity of accounts; net transfers of client assets to or from a firm;
- Available external rankings of firms' underwriting, trading, advisory, or research services;
- Market shares of relevant secondary markets (for example, stock exchange or government security primary dealer);
- Advantages derived from market position, such as informational economies of scale; and
- Published rate schedules and the extent of discounting from rate schedules.

Performance track record

A great deal of emphasis is placed on understanding how a particular management has, or has not, succeeded in navigating industry cycles, particularly compared with its peers' performance. Standard & Poor's reviews the following, as appropriate:

- Annual volatility of revenues, pretax profit margins, and returns on equity;
- Quarterly performance compared with firms with a similar business during a cyclical downturn; and
- Sources of volatility in performance (trading volatility or broad-based cyclicality); sensitivity of pretax income to changes in revenue (operating leverage).

Cost structure

The cost function depends on the services provided and the types and numbers of customers served. For example, discount firms do not need sales assistants to help prospect for clients or research analysts to provide stock reports. Standard & Poor's would review the following issues, as appropriate:

- Proportions and trends in fixed costs;
- Noncompensation cost per employee as a measure of overhead costs;
- Makeup of noninterest expenses and proportion to net revenue;
- Size of support staff compared with producers; costs per transaction;
- If a branch sales network is used, sales (usually commissions) per branch, profitability, and branch break-even points;
- Sensitivity analysis of costs under low-trading-volume scenarios;
- The variability of compensation and headcount during cyclical downturns;
- Stability or cyclicality of expense control "culture" and the ability of management to maintain some discipline even in euphoric market environments; and
- Internally or externally sourced overhead functions, such as clearing services or research.

Earnings stabilizers

The ability of firms to sustain meaningful fee-based businesses varies widely across industry segments and geographic markets. Standard & Poor's would examine, as appropriate:

- The proportion of net revenue and pretax profit derived from less-cyclical activities, such as asset management, custody, and other fee-based revenue sources;
- In asset management, the breakdown of assets that are institutional and retail;
- Level of less-cyclical fee income in relation to fixed or total costs; and
- Impact of accounting methods.

Financial Policies and Profile

Market-risk appetite and control

Standard & Poor's tries to assess the relative potential for unacceptable trading losses. We believe sound risk management goes well beyond having the latest risk evaluation technology in place. Risk appetite, risk management and control structure as well as the strengths of risk compliance personnel are all important. Standard & Poor's would review, as appropriate:

- The importance of trading to a given firm and the instruments traded (with special emphasis on less-liquid instruments); importance of proprietary trading;
- How independence of control functions is maintained;
- How accountability is imposed on trading and control functions;
- Daily volatility of trading results;
- Control lapses and fraud;
- Risk measurement framework;
- Use of P&L reporting as a reality check to position or risk reporting;
- Limit-setting and monitoring; handling of limit, valuation, or other control violations;
- Discipline in not trading a new product until control infrastructure is in place;
- Controls over overseas branch offices;
- Staffing, reporting lines and role of internal audit; control issues raised by internal audit and their resolution;
- Aging of securities inventory and turnover; back-up facilities for trading, processing and settling transactions;
- Asset-liability management; interest rate risk; and
- Underwriting commitment process; limits on size of sole-managed underwritings.

Credit risk

In addition to credit risks inherent in bond, derivative, and loan trading positions, securities firms are exposed to credit risk from derivatives counterparties, customer loans secured by collateral, and, increasingly, unsecured credit exposures to corporate underwriting clients. Standard & Poor's reviews the management of credit risks as well as the firm's appetite for taking on risks. Specifically, the following are reviewed, as appropriate:

- Method for setting counterparty credit limits;
- Front-office systems that permit calculation and aggregation of exposure as new transactions;
- Systems that monitory adequacy of collateral;
- Top actual and potential exposures;
- Concentrations of credit risk by borrower, geography, and industry;
- Problem credits and loss history;
- Credit loss reserve adequacy; and
- Credit underwriting process; size authorization and signing requirements.

Capital

The balance sheet needs and capital intensity of securities activities vary widely among companies and even within a given firm. Capital strength or weakness is assessed in the context of these needs, as well as the diversity of the rated firm and the capital size of key competitors.

Standard & Poor's emphasizes the quality of capital. Capital with fixed maturities and charges are weaker forms of capital. Standard & Poor's would not include subordinated debt in capital. Our primary capital measure is "adjusted total equity," which incorporates common and preferred equity, within limits, and excludes goodwill and other intangibles.

In making capital calculations, perpetual preferred equity exceeding 25% of total adjusted equity is excluded. Trust preferreds that have certain dividend deferral features are included in total equity for calculation purposes up to a limit of 10% of adjusted total equity.

Conceptually, capital is needed to cover all forms of risk, including market, credit, liquidity, operational, and litigation risks. Externally published balance sheet data are inadequate to properly assess all of these risks; not only do assets—or, more accurately, positions—change daily, but also

major risk categories like operational and litigation risk are not reflected. While Standard & Poor's uses balance sheet data and risk-adjusted asset categories, the exercise is inexact and requires a great deal of judgment. Standard & Poor's reviews the following, as appropriate:

- Management's policies regarding balance sheet usage for major activities, especially over capital needs of particular businesses;
- Size and trend of the balance sheet;
- Makeup of the balance sheet;
- Internal capital generation (growth of capital from income);
- Share repurchase programs;
- Presence in capital-intensive businesses, such as institutional trading; need for future capital growth to meet continually expanding trading opportunities and expanding derivatives positions;
- Presence in businesses that have large litigation risks, such as retail brokerage or equity underwriting;
- Reserves for liquidity and litigation;
- Equity double leverage (effectively holding company debt whose proceeds are invested as equity in subsidiaries);
- The liquidity characteristics of the assets funded by equity double leverage;
- Capital that is not available to the parent company, such as that invested in derivative product companies;
- Excess of regulatory capital over minimum requirements; and
- Capital needs of off-balance-sheet transactions, such as securitized assets.

Liquidity management

In different systems, the availability and use of market-sourced, credit-sensitive funding varies. Within a given country, the kinds of funding different securities firms use depends in part on the types of activities in which they engage, as well as their creditworthiness and access to money and capital markets. Those without such access tend to rely on secured funding or bank loans. Standard & Poor's reviews, as appropriate:

- The attributes of funding; overall composition of funding sources; maturity structure of both short- and long-term funding; diversity of short-term funding sources; concentrations of funding from individual entities;
- Extent of funding from insured or uninsured customer sources; existence, maturity and legal underpinning of markets for secured sources of funding, such as repurchase agreements or buy-sell agreements;
- Relationships with banks or other sources of funds; and
- Numbers and names of primary bank relationships; access to central bank or governmental sources of emergency liquidity;
- Financial policies and contingency planning;
- Character of the assets funded;
- Ability to quickly liquidate short-funded assets;
- Ability to borrow against short-funded assets as collateral;
- Ability to transfer liquid assets between various legal entities of the organization;
- Maintenance of a comfortable cushion of asset liquidity in excess of the potential short-term repayment needs; and
- Short-term obligations that are not on the balance sheet that may arise because of a credit crisis, such as the need to provide collateral for previously uncollateralized transactions, such as swaps.

Accounting

Accounting regimes can vary widely between systems and affect the quality of information available to management. While fair value accounting imposes discipline on management, the absence of liquid trading markets for certain instruments presents meaningful valuation challenges. New accounting pronouncements, such as accounting for securitizations, and the variety of accounting choice, such as accounting for stock options, can create large changes in earnings results and in the size and composition of balance sheets. Standard & Poor's will review, as appropriate:

- Transparency of accounting used by the firm;
- Fair value or historical cost;
- The appropriateness of market measures in determining the fair value of specific positions;
- Conservatism of management's internal accounting model;
- Quality of external auditing; and
- Existence of an internal audit department and its role and reporting lines.

Securities Company Ratios

Adjusted Revenue. Total revenue less interest expense. Better measure of revenue trends, since it reduces swings in revenues caused by changing interest rates on highly leveraged balance sheets.

Adjusted Expense. Total expense less interest expense.

Net Income. Pretax income less taxes but before payment of preferred dividends.

Noninterest Pretax Income. Pretax profit less net interest income.

Adjusted Assets. Total assets less reverse repurchase agreements. Reverse repos are backed out of some leverage calculations in recognition of their extremely low risk characteristics and lack of funding requirements.

Total Equity. Common equity plus preferred equity.

Pretax Return on Average Equity. Pretax income divided by a two-point average of total equity.

After-Tax Return on Average Equity. Net income divided by average total equity.

Pretax Return on Average Assets. Pretax income divided by average assets.

After-Tax Return on Average Assets. Net income divided by average total equity.

Less Liquid Assets. Standard & Poor's defines less liquid assets as including property, intangible assets, merchant banking assets, junk bonds, unsecured loans, and commodities.

Term Debt. Debt with original maturities greater than one year.

Short-Term Borrowing. Debt issued with less than one year that in public financial reports is usually unsecured.

U.S. Nondepository Mortgage Lenders

The national mortgage market has changed dramatically since its beginning in 1934, when the government created the Federal Housing Administration (FHA). The FHA-insured mortgage provided transferability and a stable source of financing, together with minimal risk, and set the stage for the development of a national mortgage market. In 1938, Congress formed the Federal National Mortgage Association (FNMA or Fannie Mae) for the purpose of providing a secondary mortgage market for FHA-insured loans. In 1968, legislation was passed enabling FNMA to operate as a government-chartered private corporation; also in that year, the Government National Mortgage Association (GNMA) was created to assume FNMA's duties of overseeing loan subsidies and below-market purchase programs. GNMA also received guaranty authority that led to the GNMA-guaranteed MBS program. The residential mortgage market was opened to a broad array of investors with the introduction of the GNMA security in 1970. The Federal Home Loan Mortgage Corp. (Freddie Mac) followed in 1971 with its participation certificate program, which opened the federally guaranteed MBS market to conventional mortgages. Adjustable-rate mortgages (ARM) were introduced in 1981, the same year that FNMA rolled out its own MBS program. This transformed the mortgage market by lowering the barriers to entry; it also led to the creation of a wide variety of MBS structures. FNMA and GNMA continue to further the standardization of the conventional mortgage market through new products, streamlined and automated underwriting, and improvements in workflow technology.

The development of the MBS market initially helped thrifts by creating a mechanism by which mortgages could be removed from their balance sheets to reduce interest rate risk and meet regulatory capital requirements. It also lowered the barriers to entry for nonthrift competitors and changed the profitability dynamics of single-family originations. These changes began the "commoditization" of the single-family mortgage and led to lower profitability margins on the origination of residential mortgage loans. The competitive dynamics increased greatly, because the amount of capital required to be a mortgage lender was significantly lowered as a result of securitization.

The "subprime" mortgage market was launched during the economic slowdown of the late 1980s and early 1990s. The slowdown, which culminated in a recession in 1991, left many borrowers unable to qualify for conventional mortgage loans, because high unemployment had led to poor credit performance. Borrowers who were once "A" credits were now classified as "B & C" or subprime borrowers. This event, coupled with the increasing use of credit scoring and Wall Street's continued creation of new asset-backed securities, provided the liquidity for the phenomenal growth of the subprime mortgage industry. The subprime mortgage market, with its wider spreads, has become more attractive to conventional mortgage lenders, given the compressed profit margins of the highly commoditized "A" mortgage market. Consequently, prime or conventional mortgage companies are increasingly entering the subprime mortgage market, attracted not only by the wider profit margins, but also the continuing development of the secondary market.

The development of the secondary market and the increased securitization activity among mortgage lenders led to changes in accounting standards that dramatically altered the profitability dynamics of mortgage lending. The typical practice in the mortgage banking industry is to package and sell the ownership and risk of holding mortgages, with or without the servicing rights. When a loan is sold and the servicing right is retained, a mortgage-servicing asset (MSA) is created. The introduction of SFAS 125, which came into effect on Jan. 1, 1997, accelerated the revenue recognition on the disposition of the underlying mortgage. Under SFAS 125, the servicing and interest income expected to be collected during the life of a transaction in excess of what has to

be passed through to the MBS investor is recorded as earnings at the time of securitization. The early realization of revenues allows for a more rapid buildup of capital, which when combined with the ability to remove loans from the balance sheet through securitization, allows companies with relatively modest financial resources to be in business. The result has been an explosion in the number of nondepository mortgage lenders since the mid-1980s. Some of these have accessed the capital markets and have obtained a Standard & Poor's rating. Among the nondepository mortgage lenders rated by Standard & Poor's are mortgage real estate investment trusts (REITs), mortgage companies specializing in loans that conform to U.S. agency (for example, Fannie Mae) standards, and specialty finance companies targeting credit-impaired or subprime borrowers. In the report that follows, Standard & Poor's offers an analytical roadmap to the industry.

Rating Considerations

General risks. Mortgage companies, regardless of their legal structure, are active in a business that is inherently cyclical. Real estate markets are tied to regional and national economic cycles and are greatly affected by changes in interest rates. Because of this, a company's sensitivity to cyclical factors will vary greatly along the rating spectrum. Mortgage companies that specialize in the higher credit risk, less liquid mortgage markets typically are rated in the noninvestment-grade categories. Managing through a cyclical downturn proves extremely challenging for the higher-risk credit profile companies, as shaken investor confidence and market volatility quickly leads to illiquid whole loan and securitization markets. Conversely, mortgage companies that derive the bulk of their revenues and assets from the prime single-family mortgage markets, which are of higher credit quality and are more liquid, could see ratings in the investment-grade categories. This does not imply that a company whose business model is not centered around the prime mortgage market would be precluded from achieving investment-grade ratings. Upon further review, a mortgage company's business and financial management practices, including the critical rating factors discussed below, could influence its rating outcome.

The basic business models and associated risks. A mortgage company makes three decisions that define its business model. Each of these entails trade-offs in terms of the risk to creditors.

A lender must first decide on which product or array of products it will acquire and/or originate. The nondepository mortgage lenders rated by Standard & Poor's offer:

- Commercial real estate loans, including multifamily housing loans;
- Residential mortgages that conform to U.S. agency standards;
- Prime credit quality, nonconforming residential mortgages;
- Nonprime or subprime credit quality residential mortgages; and
- Home equity loans.

The lender must then decide what to do with the acquired mortgages. If the lender has chosen to be a portfolio lender, the mortgages will be retained on the balance sheet to generate interest income. Alternatively, the mortgages can be sold as a whole loan or, more commonly, securitized to realize a gain on sale for the lender. While one form usually predominates, all of the nondepository mortgage lenders rated by Standard & Poor's contain features of both. Even so, only the mortgage REITS rated by Standard & Poor's could be described as true hybrids, incorporating conduit operations with a large permanent investment or loan portfolio.

The third major decision a lender must make is where and how to acquire the mortgages and whether to retain the servicing of the mortgages. In other words, the lender must decide on the extent of vertical integration. This varies widely among the mortgage lenders rated by Standard & Poor's, from total vertical integration where all origination and servicing is conducted by the company, to nonintegration, where product is acquired from and serviced entirely by third parties. A company can acquire mortgages using three basic methods: direct loan production; wholesale loan production; and closed loan purchases from correspondents.

Commercial vs. Residential; Conforming vs. Nonconforming; Prime vs. Subprime

Differences in the degree of credit risk. The type of mortgage loan in which a lender specializes will affect its risk profile, as some types of loans carry a greater risk of credit loss. Residential mortgages are broadly perceived as carrying modest credit

risk. The perception of residential loans as containing less credit risk, even in the subprime category, is based on the fact that a residential portfolio is more granular; that is, credit risk is more widely distributed and individual credit exposures are smaller. The perception that commercial mortgage lenders have higher credit risk is driven partly by Standard & Poor's experience with the industry; in the past speculative excesses in selected markets caused difficulties even for lenders with conservative underwriting standards.

Further risk grading occurs within residential mortgages and is based on how a loan is underwritten in terms of a borrower's creditworthiness and the degree of collateral protection. As a rule, residential mortgages underwritten to conform to Fannie Mae and Freddie Mac standards are considered to have the least potential for loss, given the stronger credit profile of the borrower, limited loan size, strict loan documentation requirements in the underwriting process, and limited loan-to-value ratios (the maximum is 80%; higher than 80% requires private mortgage insurance coverage).

The hierarchy of risk for the broad class of residential mortgages that does not conform to Fannie Mae and Freddie Mac standards is more ambiguous and judgmental. That these loans are nonconforming may be due to concessions in:

- The borrower's creditworthiness;
- The size of the loan;
- The degree of collateral protection;
- The lender's lien position; or
- A combination thereof.

Although nonconforming loans do not display the same level of uniformity as conforming loans, they nevertheless exhibit a much greater degree of standardization in underwriting than commercial mortgages. The analysis of home mortgage lenders in general is facilitated by a common loan grading system for the industry, dividing borrowers into prime ("A" quality) and subprime categories and further dividing subprime borrowers into B, C, and D categories. Variations in grade definitions among lenders are usually not material, making it relatively easy to compare the risk tolerances of different residential mortgage lenders and to track changes in tolerance levels.

Determining the credit risk of a commercial mortgage is more challenging, as underwriting tends to be less standardized and the risk variables more numerous. The source of repayment typically is not the borrower, but the income generated by the securing property. Consequently, servicing commercial real estate loans tends to be more labor-intensive and specialized, with more protracted workouts and greater carrying costs than for residential mortgage loans. Because commercial mortgage exposures are much larger, the margin for error is much smaller. While Standard & Poor's focuses on management and process as part of its ratings evaluation for all mortgage lenders, regardless of specialization, these factors carry greater weight when assessing the risks of a commercial mortgage operation. Of particular importance is a review of the property types in which a commercial mortgage lender may specialize, as not all property types carry the same risks.

Differences in liquidity and market risk. Nondepository mortgage lenders typically fund themselves through secured borrowings, pledging as collateral the loans originated by the lender. Secured borrowing facilities are usually structured with advance rates that represent a percentage of the market value of the collateral. If the value of the collateral declines, the borrower is subject to margin calls, requiring either a paydown in the borrowing or the pledging of additional collateral. If the value of the collateral deteriorates too rapidly or the related MBS or whole loan market dries up, the lender may be unable to liquidate its holdings at sufficient values to cover its margin calls.

Market liquidity varies substantially among mortgage classes. Mortgages guaranteed by Fannie Mae and Freddie Mac are the most liquid, as the associated MBS market is the oldest and hence the most established and deepest. The presence of the agency guarantee insures that credit concerns do not become the cause of market revaluations. The market for nonconforming residential mortgages is less established and can suffer from significant volatility arising from credit concerns. Nevertheless, the existence of more than one securitization structure and a reasonable standardization of loan grade definitions makes the associated MBS market more reliable as a means of liquefying assets than, for example, the CMBS market.

Because of the lack of depth and diversity of deal structures in the CMBS market and the relative scarcity of whole loan investors, the market values of commercial mortgages are subject to considerable volatility. Liquidity squeezes brought on by margin calls from secured lenders are more likely

to affect commercial mortgage lenders than conforming or nonconforming residential mortgage lenders. Moreover, market illiquidity can from time to time become acute for noninvestment-grade-rated tranches of CMBS.

A lender must also be assured that it can sell or securitize its mortgages at a price that will allow it to pay back its secured lender. Lenders protect themselves from a loss of value by hedging their mortgages with a financial instrument that is readily marketable and whose value will move in the opposite direction of hedged mortgages.

The ability to hedge against market and interest rate risk is problematic for both commercial and nonconforming residential mortgage lenders. Standard & Poor's believes that the basic risk is higher for the lenders of these asset classes than for U.S. agency-guaranteed home mortgages. The market for conforming mortgages closely correlates the market for U.S. Treasury securities, the instruments most often used for hedging activities. In terms of credit risk, U.S. agency-guaranteed mortgage securities and U.S. Treasury securities are viewed as similar credit risks, and their respective values and yields tend to track one another more consistently.

Portfolio Lenders vs. Securitizers

Differences in earnings quality. An important distinction between a portfolio lender and a securitizer lies in the quality of their earnings. Portfolio lenders clearly offer creditors the greatest protection, with more predictable, annuity-like earnings realized in the period in which they are generated in the form of interest spread income. Because a portfolio lender recognizes interest income as it is received over the life of a mortgage asset, its income stream is more predictable than that of a securitizer, the bulk of whose earnings are front-loaded. Recognizing earnings over the life of the assets benefits creditors in two ways. First, management is better able to match the yields and repricing terms from assets to the costs and repricing terms of funding liabilities. Second, a portfolio lender is not under as much pressure to constantly originate or acquire product in order to report earnings, which is particularly challenging in a deteriorating economic environment.

Portfolio lenders' earnings can be sensitive to changing interest rates. Such lenders might be faced with prepayments and returning money to a lender to be invested in a new asset, perhaps at a rate of return less than the cost of the funding liability supporting the original asset. Alternatively, if a portfolio lender is intentionally running an interest rate mismatch between the funding liability and the asset it is supporting, a decline in interest rates could narrow the spread between the two. While these are very real risks, the effect tends to be less severe than for a securitizer.

Securitizers report the bulk of their earnings as projected servicing income and/or gain-on-sale income. Both subprime and conforming mortgage lenders recognize servicing income up front, and this income has a large noncash component. The calculation of income, which is capitalized and recorded on the balance sheet as a mortgage-servicing asset (MSA), is based, in part, on the assumed life of the securitized assets. Subprime lenders' gain-on-sale income is also largely noncash and is recorded on the balance sheet as an interest-only (IO) security, reflecting the interest expected to be collected in excess of what must be paid to the mortgage-backed bondholders. The main variables affecting this calculation are the rate at which the securitized mortgages will repay and expected credit losses. For securitizers of conforming mortgages, the gains on sale are realized in cash and no receivable is recorded.

Although a lender expects the income it has reported to be realized as cash, the amount of cash collected could differ from what was initially estimated, resulting in a special gain or charge to earnings. If the income to be received is less than the amount originally estimated, the impairment charge can be recognized by netting the impairment against the current period gain on sales or interest income received from the booked receivable, or as an accelerated amortization, which will be recorded as an expense item. In a declining interest rate environment, prepayments due to mortgage refinancing accelerate (either as a result of lower rates, or, in the case of subprime lenders, to the improving creditworthiness of the borrower). If management has assessed the likelihood of prepayments accurately, the impact would have been factored into the value of the IO or mortgage servicing asset when it was booked.

Where prepayments exceed earlier estimates, the impact should be muted by greater-than-anticipated originations, whereby volume-driven increases in gain on sales offset or even exceed accelerated

write-downs of the IO or MSA. The logic behind this theory is that the favorable interest rate environment and strong economic growth that led to accelerated prepayments would also add momentum to overall loan originations. However, as recent events have shown, particularly in the subprime mortgage sector, a limited pool of qualifying and willing borrowers and a low barrier to entry against new competitors has created a frenzy of refinancings that has overwhelmed even the most conservative prepayment assumptions.

In a rising interest rate environment, prepayments from refinancings would fall and the value of the servicing asset and IO would increase as the average lives of the securitized mortgages are extended. This scenario could be affected by an increase in credit problems, which would accompany a significant rise in interest rates and a slowdown in economic activity. The impact of this would come mainly in the form of higher foreclosures, which are a form of prepayment. Going by past experience, foreclosure rates would remain well within the prepayment assumptions of most securitizers and would not mitigate to any meaningful degree the benefit on the mortgage servicing asset or IO value created by a rise in interest rates. This has held true even for subprime securitizers. Both Delta Financial and Contifinancial, subprime mortgage lenders already in business in the late 1980s, were heavily concentrated in the Northeast, where the real estate market and the economy in general experienced a severe downturn in the early 1990s. The foreclosure rates experienced in their securitizations, containing the loans originated before the downturn, show that the impact from foreclosures on prepayments remained well below assumptions.

While this experience is likely to be repeated for securitizers of conforming mortgages in the next economic downturn, Standard & Poor's does not assume that this will be the case for subprime lenders. First, the industry has grown exponentially since the early 1990s, suggesting at least the possibility that some adverse selection of borrowers may be occurring. Second, many borrowers, by consolidating credit card and other higher cost debt into lower cost home equity debt, are improving their creditworthiness and hence qualifying for a higher grading. While some of these borrowers will maintain strong credit profiles, others can be expected to reload with credit card and other revolving debt over the longer term, weakening their credit risk profile as their debt service burden once again increases. Behavioral scoring is being introduced by some subprime lenders as an underwriting consideration, but the validity of the model has not yet been demonstrated.

The level and degree of prepayments not only have a negative impact on MSA and IO valuations, and hence, earnings, but also on some securitization structures. A number of securitizations (at least those supported by bond insurance) contain covenants directed at servicers that limit the level of permitted delinquencies within the supporting mortgage pool. A violation could prompt the trustee or bond insurer to seek a transfer of servicing. The securitizer would not only lose the current servicing (and the associated income) but would also be subject to an increase in the costs of future securitization through a tightening of terms by the rating agencies and bond insurers and/or by making its MBS less attractive to investors. To prevent this, subprime mortgage lenders that undertake their own servicing would have a strong incentive to buy poorly performing loans out of the securitization, which would further affect prepayments. Indeed, this practice is already evident, although the volume to date has been modest.

Differences in liquidity risk. A further distinction between securitizers and portfolio lenders is seen in their cash flow positions. Standard & Poor's traditionally has evaluated a company's liquidity risk in terms of balance sheet (that is, maturity mismatches between assets and the liabilities supporting those assets) and the management of and absolute level of readily accessible sources of liquidity on both a secured and unsecured basis. Because most of the nondepository mortgage lenders rated by Standard & Poor's are relatively young companies that are still growing aggressively, the operations themselves consume significant amounts of cash. Consequently, operating cash flow and the ability of lenders to cover cash costs with cash income has taken on greater importance in the liquidity analysis of these companies.

In the case of portfolio lenders, cash streams from assets tend to match those paid on funding liabilities, leaving sufficient spread to cover the costs associated with managing the portfolio as well as return a profit. Rarely, however, does a portfolio lender exist solely to manage its investments; it will also operate a transactional business, typically acquiring and securitizing assets. Such

transactional activities affect the cash position of the portfolio lender, but the existence of interest spread income frequently leaves that lender in a better cash position than a pure securitizer. Moreover, because a portfolio lender has some annuity income, its access to capital markets to raise bridge cash is likely to be better preserved than that of a pure securitizer if a difficult economic environment disrupts its transactional businesses.

The amount of cash consumed in a transactional business depends on the nature of the business itself. In the case of products for which well-established ABS markets or government guarantees exist, the cash received from securitization is optimized as subordination requirements and securitization costs are minimized. Thus, securitizers specializing in conforming mortgages are in a stronger cash flow position than subprime securitizers. The costs and credit support requirements of securitizing subprime lenders' loans still consume significant amounts of cash, leaving most of these lenders unable to cover their cash operating costs.

As subprime companies mature, cash arising from past securitizations, as well as better execution on their securitizations, should improve their operating cash flow. Moreover, longer warehousing of loans on the balance sheet or even the establishment of an investment portfolio—a strategy increasingly being pursued by subprime lenders—should also alleviate some of the short-term cash constraints (although, as discussed earlier, any salutary effect on the lender's liquidity position of longer-term mortgage or security holdings would depend on how these assets were funded and hedged against market revaluations). In the meantime, most subprime lenders that rely on securitization continue to have large negative operating cash flows, and very few are able to cover the cash expenses of their business with cash income. Some financial flexibility is provided by unencumbered IOs and servicing assets and by subordinated securities (which are created as an alternative to cash reserves to provide protection for the more highly rated mortgage securities against credit losses). Standard & Poor's discounts this flexibility to some extent, however, as the market for these assets is yet to mature.

Differences in leverage and the quality of capital. The capital-to-risk asset ratios of each type of lender would seem to point at last to an advantage that securitizers have over portfolio lenders; namely, that securitizers look to be more conservatively levered. While the leverage ratios of portfolio lenders generally have been trending up, those of most securitizers have remained stable or even improved. This advantage disappears when adjustments to each group's equity base are made to incorporate quality of capital concerns, however.

Three main factors lie behind the apparent strength of securitizers' leverage ratios. First, securitizers, especially on the subprime side, have been reporting strong income results for the past five years as loan production and securitizations have exploded, contributing to an equally rapid accumulation of capital. Second, many of the subprime lenders rated by Standard & Poor's did not pay out dividends during this period. Third, many securitizers sell the bulk of their loans before the end of financial reporting periods, enabling them to disclose relatively clean balance sheets. To be fair, securitizers have accessed the equity markets, but the effect of new equity on leverage trends has not been as material as the above three factors. Because portfolio lenders retain loans and related securities on their books for much longer periods, their leverage ratios are higher than those of securitizers. As most of these companies, like their subprime brethren, have also been growing, leverage has increased.

Securitizers' stronger capitalization is apparent rather than real when adjusted for the quality of each group's capital, however. Because securitizers' capitalization consists mainly of retained earnings generated by gain on sales, a large portion of capital is unrealized. On the other hand, portfolio lenders' capital consists mainly of paid-in capital and realized earnings.

It is often argued that full credit for the disclosed value of an IO and MSA should be given, because these assets have to be marked to market when reported to investors. The reality is that the market values of these assets can be exceptionally volatile in a declining interest rate environment, and unless a workable hedging program and strong loan production business are in place to preserve their values, accepting a point-in-time measure as capital credit is too generous. Moreover, the actual valuation process, in the absence of a liquid and deep trading market for these assets, is itself problematic. Revaluations often occur only when management decides to

change prepayment and other assumptions that affect the value of assets.

Standard & Poor's examines the accounting assumptions used by a lender in calculating its MSA and IO security and may discount their value against the lender's capital if assumptions appear aggressive relative to peer averages. Likewise, a haircut may be applied if Standard & Poor's believes the risk in the asset is magnified as a result of the pledging of the asset. For example, this would apply to net interest margin transactions where the IO secures the financing, giving the fund's provider first claim on any cash received from the pool of securitized mortgages assets that generated the IO. A net interest margin sale effectively subordinates the portion of the IO retained by the lender, amplifying the effects of any impairment. In such a case, the haircut taken on the value of the IO could be as high as 100%.

A REIT presents a unique challenge in terms of evaluating capital quality. Given that a REIT's capitalization consists mainly of paid-in capital or realized earnings, the quality of capital is high. What a REIT lacks, however, is flexibility to add to its capital base. By law, a REIT must pay out as dividends 95% of its taxable income, limiting its ability to build up capital through the retention of earnings. It is Standard & Poor's view that a REIT's inability to retain capital poses a significant risk for creditors.

Differences in credit risk. Residential mortgage lenders that securitize effectively remove the risk of credit loss from their balance sheets. Conforming home mortgage lenders retain no residual credit risk. Subprime securitizers always retain some residual risk, as the value of the IO security is partly determined by an estimate of expected losses over the life of the securitization. A change in loss assumptions would have to be of a severe magnitude (quadrupling as opposed to doubling) to have anything but a modest impact on the value of the subprime lender's IO, however, especially compared with the damage inflicted by changes in prepayment assumptions. It could be argued that the growing trend of buying delinquent loans out of a securitization is in fact transferring credit risk back to lenders. Any associated losses are usually absorbed within the securitization before the loan is repurchased, however.

Subprime residential and commercial mortgage lenders that securitize using senior/subordinated structures may not only retain credit risk, but this may be concentrated on the balance sheet. The subordinated securities in a senior/subordinated structure serve as a first line of defense against losses hitting the 'AAA' and other high investment-grade-rated securities tranches. Consequently, the balance sheet exposure to credit loss for securitizers that do not sell these securities (which are rated 'BBB' and lower or go unrated) can be as high as that of portfolio lenders.

Vertically Integrated Securitizers vs. Unintegrated or Partially Integrated Securitizers

Total vertical integration for mortgage lenders means the ability to directly solicit and underwrite borrowing customers and to service loans once they are acquired. Admittedly, substantial costs can be incurred in creating the infrastructure to support these functions. However, the control vertical integration gives lenders over the underwriting process and customer relationships positively affects both asset quality measures and prepayment rates, regardless of whether a lender is retaining a loan or securitizes it (and retaining a residual exposure). With only few exceptions, this is the case regardless of the type of mortgage in which a lender specializes.

The logic here is straightforward. On the origination side, the closer a lender is to a customer, the better informed the credit decision. This is especially important for subprime lenders, whose customers have blemished credit histories and as such represent "story credits," the merits of which can best be judged individually. The same tenet holds true for commercial mortgage lenders, whose knowledge of a developer and/or owner is often key to the successful performance of a loan. Likewise, the incentive to monitor closely a credit for signs of problems and to respond quickly to such signs are strongest for those most affected by a deterioration in credit quality, namely lenders. Consequently, Standard & Poor's prefers lenders with direct or residual exposure to the loans they acquire to retain their servicing.

A similar rationale applies to prepayments. Companies that retain control of customer relationships are better able to prevent the resolicitation of customers by other lenders to refinance. Resolicitation of mortgage borrowers has become an increasingly common practice by mortgage brokers and other third-party originators that have the upside of earning origination points and not

the downside of seeing a loan prepay or the value of a servicing receivable impaired. Similarly, prepayment activity can be better monitored and controlled by the lender servicing the loan. If nothing else, the lender can attempt to retain a customer by offering to rewrite the terms of a loan when the notice of early repayment is received. Since the early-1990s' refinance market, prime mortgage lenders have instituted prepayment penalties in an attempt to receive some compensation in periods of high refinance activity. This practice has long been undertaken by commercial mortgage lenders, and is being implemented by subprime lenders with greater frequency.

For subprime securitizers, the economics of acquiring loans from third parties have proven unpredictable. Throughout most of the 1990s, as growth in the industry was taking off, subprime lenders were able to acquire mortgages more cheaply through correspondents and brokers rather than retail channels, especially branch systems carrying high fixed costs. The market was changing by 1996, however, as lenders found themselves paying premiums for bulk whole loan purchases of subprime mortgage loans as high as 6% and yield spread premiums to brokers of 1%-2%.

After several years of torrid growth, the subprime market reached saturation point, with a shakeout of the industry beginning in early 1998 and accelerating in the late summer of that year. At the time of writing, yield spread premiums to mortgage brokers were evaporating and premiums on whole loan purchases were being dropped like rocks as bidders pulled back or withdrew completely from the market. Nevertheless, Standard & Poor's is not sanguine that the basic features of the broker-derived and whole loan mortgage market have been altered fundamentally. Barriers to entry remain low, and while banks may presently be reluctant to fund new mortgage companies, these conditions may turn out to be cyclical rather than secular. Moreover, the banks themselves and other traditional lenders are entering the business or expanding their existing subprime lending activities. Standard & Poor's believes that they will be even more formidable competitors, given their lower cost of funds.

Standard & Poor's believes that a strong direct origination capability can help alleviate the boom/bust tendency of the business by diversifying origination channels. On the one hand, when whole loan or broker premiums are increasing, the economics of retail origination can hold a major cost advantage. Since retail sourced loans can be originated at an advance rate below or near the par value of a loan, the risk of a negative operating cash flow is mitigated because directly originated loans, at least in normal times, can be sold into the whole loan market at a cash gain. This can be a critical advantage if the traditional source for financing a lender's cash deficit, the equity and unsecured debt markets, shuts down, as occurred in the second half of 1998. This is not as important for conforming mortgage lenders. Because the underwriting of conforming loans is highly standardized and these loans are of a higher and uniform credit quality, the cash costs associated with securitization are low. Moreover, the gains are realized in cash, and the cash from servicing arrives more quickly than it does for subprime securitizers (where cash may be diverted to fill reserve accounts supporting a securitization).

Finally, Standard & Poor's does not give equal treatment to all retail strategies but rather looks at the cost structure to gauge the quality of a direct origination strategy. After all, if the economic climate deteriorates, a high fixed cost could dramatically worsen the declining profitability of a lender, especially a securitizer stuck on the gain-on-sale treadmill. For this reason, a retail strategy focused on physical branches may not make as much sense as one geared toward telemarketing or mailings.

Conclusion

This report has attempted to offer an analytical framework by which all mortgage lenders can be judged against each other, regardless of the business model adopted. This is not to suggest that a black box can be created into which the risks of the individual components can be thrown and somehow averaged out to come up with a rating. As mentioned earlier, many other variables must be considered, including highly subjective variables such as management skill in mitigating the risks associated with securitization or with sourcing through third parties or with commercial real estate lending. Likewise, a relatively low-risk business model can be seriously botched by a determined management.

U.S. Mortgage Bank Rating Analysis Methodology Profile

Industry Risk

The following are key industry risk factors that Standard & Poor's Ratings Services considers in its review of mortgage banks.

- Residential mortgage markets are highly cyclical; highly sensitive to changing interest rate cycles and the strength/weakness of regional housing markets; also identify other external factors that affect local/regional housing market.
- Highly competitive market; large number of players, and large players are in the market with consolidation in the industry up dramatically; low barriers to entry.
- Commoditization of the mortgage market has affected profitability of conventional loan sales, given the highly developed secondary market and FNMA and FHLMC's position in the market.
- The secondary market has eliminated geographical differences in interest rates, allowing for national competitive rates; the secondary market also allows for geographic diversification in mortgage portfolio.
- Monoline business risk.
- Asset valuation risk: mortgage servicing rights (MSRs) are a major earning asset for mortgage banks active in servicing. The valuation of this asset is an estimate of value based on several key assumptions (the valuation of behavioral risk of the mortgagor is one of the key assumptions—e.g., prepayment rates, credit quality, interest rates, etc.). This is also true for the valuation of I/O strips and other retained interests resulting from mortgage securitizations.
- For conventional mortgage loans, the developed secondary market for MSRs has benefited the valuation of these assets; in contrast, the secondary markets for subprime mortgage MSRs is not as highly developed and fluid market.
- Accounting standards: In the U.S., valuation and impairment standards under FAS 140, FAS 149, FAS 133, and related Emerging Issues Task Force interpretative guidance regarding the sale and servicing of mortgage assets. FAS 140 tends to front-load the origination costs and GAAP reported earnings for servicing and gain on sale as a present value calculation (based on several assumptions), which may or may not be realized.

Management and Corporate Strategy

Mortgage banks are characterized by the scope of their business, targeted customer base, and mortgage products offered. There are three distinct business profiles that mortgage banks typify:

- Mortgage banks that are involved in mortgage production through retail and wholesale channels and building/retaining a mortgage servicing portfolio.
- Mortgage banks that are only mortgage producers/originator.
- Wholesalers/conduit mortgage banks.

Once the business profile is identified, evaluate management's execution of its business strategies and overall corporate practices:

- Credibility of management and its track record.
- Ability to expand and contract business in light of changing market conditions.
- Acquisition strategy for mortgage production, mortgage servicing, or franchise expansion.
- Servicing innovation/technology.
- Hedging strategies.
- Competitive position and market position.
- Compensation practices used for loan underwriters and loan originators.

Franchise/Business Overview

Identify primary loan origination and production channels and their volume relative to total production:

- Wholesale production. Typically from two sources:
  1. Percentage from correspondents: The buying of closed loans from mortgage brokers, commercial banks/thrifts, and other financial intermediaries.
  2. Percentage from mortgage brokers: Loans delivered to the company from mortgage brokers and other financial advisors.

- Retail production. Percentage of total production of loans funded through retail branch offices or loans funded through "retail" telemarket/call centers or the Internet.
- Loan production/total servicing portfolio: Gives an indication of the company's capacity to replace servicing in a refinance market.
- Loan production by state: Geographic concentrations (top state percentage and top five states' percentage of total loan production).
- Purchase mortgage volume versus refinance mortgage volume.

Types of loan products originated and serviced:

- Variety of loan products offered.
- Targeted customer profile for each loan product (subprime loan products versus prime/conventional mortgages).
- Does the company provide ancillary services and/or own businesses related to the mortgage origination process?

Profitability

The inherent vagaries of the residential mortgage markets can lead to volatile profitability measures for mortgage banks. Loan volume directly impacts profitability. In a rising-rate environment, mortgage volumes decline, and in a declining-rate environment, mortgage volumes increase significantly, fueled by higher refinance activity. Also, GAAP accounting issues (FAS 140, FAS 149, and FAS 133) provide a challenge in evaluating mortgage banks' profitability. Several factors influence reported gain on sale and mortgage servicing amortization and impairment levels, including product mix, discount rates, credit quality, prepayment, and duration estimates.

Revenues are primarily derived from origination fees, warehouse spread, secondary market sales, and service fees. Companies that also provide ancillary services to the mortgage process will add another fee-based revenue source to overall profitability. Diversity of earnings:

- Interest income (usually a small component of revenue).
- Noninterest income:
  1. Loan servicing revenue. Loan servicing/total revenues. The higher the % the larger the servicing portfolio relative to the companies other mortgage banking activities; in a stable or rising rate environment, this gets afforded a higher-quality revenue, as the company will benefit from an "annuity-like" flow of servicing revenue as mortgage prepayments decline. Also, servicing impairment reserves can be recovered based on lower of cost or market of the underlying servicing rights.
  2. Loan production revenue. Loan origination fees/total revenues; gain (loss) on the sale of warehouse loans/total revenues; gain (loss) on the sale of mortgage servicing rights as a percentage of total revenues.
- Frequency of whole loan sales and the gains realized relative to total revenues. Evaluate this by product type (prime, subprime, etc.).
- Profitability measures. ROA (earnings power is a reflection of the quality of the underlying assets); coverage of fixed financial charges by cash flow; (net income + depreciation + amortization/term debt (nonwarehouse debt).
- Operating expenses relative to total revenues and growth trends.

Servicing Evaluation

Stratify the mortgage loans serviced by risk category and identify the key characteristics of the underlying loans in the servicing portfolio. Including:

- Total size of portfolio, in dollars,
- Percentage fixed rate versus adjustable-rate mortgages,
- Percentage conforming loans (FNMA & FHLMC),
- Percentage jumbo loans (loans over the conforming loan limit (FNMA and Freddie Mac limit)),
- Percentage GNMA (FHA and VA loans),
- Weighted-average coupon rate,
- Weighted-average servicing fee,
- Weighted-average contractual maturity,
- Projected weighted-average life,
- Servicing portfolio runoff rate,
- Projected servicing amortization rate,
- Quarterly servicing impairment charges,
- Percentage of loans 90 days past due, and
- Geographic concentration: top state percentage, and top five states' percentage.
- The degree of centralization of servicing activities and number of servicing centers.
- Servicing portfolio growth derived from the company's own production versus purchased mortgage servicing.

Asset Quality

- Mortgage originations. Concentration of mortgage product: underwriting guidelines followed

for each mortgage product; delinquency levels (% past due and trends); % loans in foreclosure.
- Accounting issues. Capitalization of mortgage servicing rights and I/O strips for prime mortgages and valuation of excess servicing rights and I/O strips for subprime mortgages (assumptions utilized, size of the asset relative to capital and total assets; frequency and degree of write-downs/impairment charges).
- The level of recourse exposure in the loan servicing portfolio or loan sale activities.
- Type and size of retained interests held to support securitization of mortgage loans.

Asset-Liability Management
- Liquidity
  1. Level of unencumbered assets.
  2. Quality of earning assets; liquidity within the loan and investment portfolio.
  3. Negative or positive cash flow position.
- Funding
  1. Diversity of funding sources; mix of long-term versus short-term funds.
  2. Number and size of mortgage warehouse lines: maturity schedule of warehouse and nonwarehouse lines; committed versus uncommitted lines; advance rates under warehouse lines per eligible assets, including restrictive covenants, if any.
  3. Composition of funding sources: warehouse versus nonwarehouse lines.
  4. Restrictive bank loan covenants.
  5. Leveraging of the servicing portfolio.
  6. Average escrow balances retained.
  7. Structure of securitizations utilized.
- Frequency of securitization activity and securitization structures.
- Interest rate risk management
  1. Type of hedges used on the servicing portfolio and on the mortgage warehouse; net gains (losses) realized.
  2. Overall management of prepayment risk in servicing portfolios and securitizations.
  3. Strength of the macrohedge; the balance and scale of mortgage production income versus loan servicing income.

Capitalization
- Capital composition,
- Total equity/total assets,
- Leverage guidelines: the level of nonwarehouse debt to equity,
- Mark-to-market value of assets and subsequent capital levels,
- Financial flexibility; ability to tap external sources of capital, and
- Off-balance-sheet risk factors.

Rating Exchanges and Clearinghouses

Standard & Poor's has developed a methodology for assigning counterparty and debt ratings to exchanges and clearinghouses. The analytics are applicable to securities, commodity futures, and options exchanges and clearinghouses that are based anywhere in the world. The methodology treats exchanges and clearinghouses as financial institutions operating on a "going concern" basis. The rating analysis takes into consideration the competitive dynamics, regulatory parameters, and institutional factors that define exchange and clearinghouse roles in the markets. The analysis also incorporates their financial performance and operational capacity that support or impair their ability to meet their counterparty and debt obligations. Most important, Standard & Poor's focuses heavily on the financial and operational safeguards that clearinghouses have developed to protect themselves from credit and market risks in meeting their clearing and settlement obligations.

In general, Standard & Poor's believes well-established and officially designated exchanges and clearinghouses exhibit a high degree of creditworthiness arising from their essential role in the financial markets and real economy that require them to exhibit a low-risk profile. The financial participants who govern exchanges and clearinghouses typically operate them like quasi-public utilities rather than as profit-making businesses. The participants exert pressure on these entities to ensure that they are structured to operate in a safe and sound manner. To varying degrees, exchanges and clearinghouses build internal safeguard mechanisms to allow them to withstand occasional market adversity. In the U.S., clearinghouses protect themselves by placing much of the credit risks arising from their clearing and settlement obligations on the clearing members. To the extent that exchanges and clearinghouses demutualize and become for-profit corporations, the burden for protecting the integrity of the market shifts from the members to the institutions' creditors and shareholders.

Standard & Poor's believes the counterparty and senior unsecured debt ratings of an exchange or clearinghouse will generally be equal. The counterparty rating, which is an assessment of general creditworthiness, is more inclusive than a financial program rating applicable solely to a clearinghouse's clearing and settlement obligations.

Role of Exchanges and Clearinghouses

Commodity and stock exchanges are organized marketplaces where buyers and sellers of listed financial instruments can efficiently execute trades. Exchanges provide liquidity to the market in their role of accurately and expeditiously collecting and disseminating transaction information. They report trades and the terms of trade to the associated clearinghouse for clearance and settlement.

Clearance is the process of determining accountability for the exchange of financial instruments and money between clearing members on opposite sides of the market. The clearinghouse, or in some cases the exchange, conducts a process called trade comparison in which it reviews each trade to ensure that the buyer and seller, along with the terms of trade (that is, quantity, price, and delivery) match. The clearinghouse can reject trades that do not match or otherwise meet its specifications. Rejected trades are returned to the clearing members for additional information, resolution, or cancellation. By only accepting perfectly matched trades, the clearinghouse removes position risk from each transaction. Once it accepts a matched trade, the clearinghouse can act as either agent, principal, or guarantor for settlement.

Settlement is the final step in a trade, whereby funds and financial instruments are exchanged between the two parties through the clearinghouse. In the U.S., a clearinghouse's contractual arrangement for clearance

and settlement is solely with its clearing members. By way of contrast, Marche à Terme International de France (MATIF) offers a two-tier guarantee. French futures regulation requires that MATIF offer a performance guarantee that covers not only clearing members in the event of a counterparty default, but also extends to their direct clients.

If the clearinghouse acts as principal, it becomes the substituted counterparty for each trade. It becomes the buyer for every seller and the seller for every buyer in a process called novation. In this capacity, the clearinghouse can provide multilateral netting, which enhances operational and market efficiencies and reduces systemic risks. With multilateral netting, the clearinghouse groups all transactions involving identical instruments or contracts. The buys and sells are offset with one another, resulting in one long or short position for each clearing member account at the end of the day.

Until settlement is complete, the clearinghouse is exposed to credit risk; that is, the risk that a party to an uncompleted transaction defaults. Only when a party fails to perform does the clearinghouse then become exposed to market risk. An important tenet in reducing settlement risk is a procedure known as delivery versus payment. DVP is the simultaneous exchange of financial instruments (the delivery) and funds (the payment). If one party to a trade fails to deliver (or pay), the clearinghouse withholds any payment (or delivery) owed to the defaulting party. In a true DVP environment, funds and financial instruments must meet in the same place, at the same time, and under control of a single entity. Furthermore, the receipt of payment must be ensured and there must be finality of settlement at the end of the exchange process. The Group of Thirty, in its report Clearance and Settlement Systems in the World's Securities Markets, recommends that "DVP be employed as the method for settling securities transactions."

Profile of Exchanges and Clearinghouses

As with all financial enterprises, the long-term viability of an exchange or clearinghouse depends on the supply and demand of its listed products. Thus, the rating process begins with an assessment of the listed products; their importance to the financial markets or the functioning of the real economy; and the liquidity (that is, the breadth and depth) of the markets. Standard & Poor's considers the diversity of listed products and examines trading volumes over a 10-year period—both in the aggregate and individually—to determine if there are any concentration issues.

Some exchanges are highly specialized, listing contracts in only one or a few closely related instruments. Others offer a broad diversity of products. For example, the Chicago Mercantile Exchange (CME) lists agriculture (livestock), financial (stock indices and fixed income), and foreign exchange futures and options on futures. The three-month Eurodollar contract, however, dominates trading volume on the CME.

Exchanges and clearinghouses are unique financial institutions that typically enjoy special privileges in their home country and are protected by high barriers to entry. Nevertheless, they face varying degrees of competition. In assessing competitive factors, Standard & Poor's examines market share statistics and trends in trading volumes and (in the case of commodity futures) open interest among rival exchanges. Seat prices are also used by Standard & Poor's to confirm the underlying trends in the value of business conducted on the exchange.

Exchange and Clearinghouse Documentation and Statistics

Documentation
- Organizational structure
- Rules and bylaws
- Compliance handbook
- Membership list and adjusted net capital
- Margin setting and clearing fund procedures
- Procedures in event of clearing member default
- Disaster recovery/contingency plans
- Backup lines of credit

Financial Statistics
- 10-year trend of trading volumes
- Mix of trading among listed instruments
- 10-year trend of open interest
- Mix of open interest among listed contracts
- 10-year trend of exchange seat prices
- 10-year trend of aggregate margin
- Composition of aggregate margin
- Top 20 contributors to aggregate margin
- 10-year trend of clearing fund
- Top 20 contributors to clearing fund
- 10 years of audited financial statements

Some exchanges and clearinghouses do benefit from monopoly protection, while others compete intensely on the basis of price, product offerings, and services. Options Clearing Corporation (OCC) is the sole clearinghouse in the U.S. for listed equity options. This monopoly position gives the OCC some leverage over its membership. Alternatively, five exchanges in North America vie for wheat traders. The smaller of these five exchanges attract traders on the basis of price (that is, lower cost access to the pits; smaller contract sizes).

Competition among exchanges and clearinghouses extends beyond national borders. The New York Mercantile Exchange (NYMEX) is the sole commodity futures exchange for petroleum contracts in the U.S., but it competes in the global markets against established exchanges in London and the Far East. Increasingly, futures and options exchanges and clearinghouses must compete with the over-the-counter (OTC) market, which can offer highly customized as opposed to standardized contracts.

The long-term vitality of an exchange or clearinghouse depends upon its ability to adapt to changing market conditions. Some exchanges are highly innovative in bringing new instruments to the market. NYMEX, which for its first 100 years was an agriculture exchange, successfully evolved during the late 1970s-early 1980s to specialize in energy contracts. There is no guarantee that any new product will be accepted in the marketplace. The product life cycles of listed financial instruments differ. Some have very long lives and trade in highly liquid markets. Others never catch on after they are introduced.

In rating a traditional (that is, open-outcry floor trading) exchange, Standard & Poor's weighs whether the institution suffers a competitive disadvantage vis-à-vis after-hour trading, highly automated proprietary trading systems, or other technological developments. Increasingly, screen-based trading systems are making serious in-roads to traditional open-outcry trading systems. With trade execution becoming a commodity business, the cost of executing a trade on an electronic trading system is but a fraction of the cost of a floor trade. Standard & Poor's believes that electronic trading eventually will win the day. Rather than face immediate mass extinction, however, trading floors, particularly those in the U.S., are likely to evolve. Notwithstanding certain economic advantages of screen-based trading systems, Standard & Poor's believes open outcry exchanges can still obtain very high credit ratings.

Corporate Structure

The ownership of an exchange or clearinghouse can take many different forms, which may have rating implications. Standard & Poor's is interested in the financial resources and the incentives of the owners to support the exchange or clearinghouse in times of need. In the U.S., exchanges are owned by their members, the diversity and financial soundness of which are factored into the rating process. Alternatively, clearinghouses in the U.S. come in a variety of ownership structures.

Clearinghouses that are associated with one exchange are typically structured as either a division or a subsidiary. However, there is one notable exception in the U.S. Board of Trade Clearing Corporation (BOTCC) is an independent clearinghouse that is owned by its clearing members, not the Chicago Board of Trade (CBOT). This ownership structure, to some degree, addresses the potential conflict of interest that arises between the exchange's focus on marketing and growth, and the affiliated clearinghouse's concerns for safety and soundness. The default of a clearinghouse, whether structured as a division, a subsidiary or an independent entity, could, in Standard & Poor's opinion, threaten the viability and, thus, the creditworthiness of the associated exchange. Conversely, a default by the exchange could jeopardize the orderly and timely wind down of the associated clearinghouse's clearing and settlement obligations.

Clearinghouses can also have multiple owners. The OCC is owned by the five separate and competing equity options exchanges. In Europe, Cedel Bank S.A. is owned by 99 financial institutions, none of which has more than a 5% stake. OM Gruppen, the parent of derivative exchanges and clearinghouses in Stockholm and London, is a public company whose shares are listed on the Stockholm stock exchange.

In assessing corporate governance of an exchange or clearinghouse, Standard & Poor's considers management experience and tenure, as well as its attitude and control of risk. Standard & Poor's weighs the independence and authority of the compliance department to ensure that exchange rules are enforced and that rule violators are appropriately disciplined. As part of the rating process, Standard & Poor's reviews actual cases of

disciplinary actions. The surveillance department needs the systems and personnel to monitor and analyze trading patterns and member positions to detect possible abuses or risks to the exchange. Standard & Poor's also reviews the compliance department's audit trails, as well as its trade exception policies and authorizations.

At future and options exchanges, house limits should not allow for any undue concentrations in trading activities. As part of its due diligence, Standard & Poor's examines exchange position limits and activity reports to determine if one or a few members dominate trading activities or have outsized positions.

Governmental Support and Regulatory Oversight

Because of their central role in the financial markets, exchanges and clearinghouses are subject to regulatory scrutiny and varying degrees of explicit or implicit support. The government may provide implicit support by promoting policies that foster the development of open capital markets and enacting laws that create a favorable operating environment for exchanges and clearinghouses. More explicit support may come in the form of outright guarantees or official liquidity facilities. In the U.S., commercial banks provide backup lines for some securities and commodities clearinghouses. While the Federal Reserve may provide liquidity during a crisis situation to prevent a systemic meltdown, any such possibility is not factored into Standard & Poor's ratings.

An important factor in Standard & Poor's rating consideration is the body of national bankruptcy laws that may place exchanges and clearinghouses in a preferential position in the event of a member's default. Clearinghouses must be able to quickly seize collateral and liquidate a defaulting member's position in order to protect themselves from possible adverse price movements.

Regulatory authorities may play a direct role in the affairs of exchanges and clearinghouses. Standard & Poor's looks favorably on the role of the regulators to the extent they provide a backstop by setting or, as is done in the U.S., approving minimal financial and operating standards and rules of conduct for officially recognized exchanges and clearinghouses. U.S. regulators occasionally audit these institutions for enforcement of their own rules and discipline those that violate rules or otherwise do not meet official standards. The regulators also police market participants to deter them from disrupting the marketplace or otherwise putting the exchanges and clearinghouses at undue risk.

Clearinghouse Risk Management

Clearing membership. A clearinghouse's first line of defense against loss is the creditworthiness of its clearing members and, ultimately, the broader membership base. This is because the clearinghouse, in order to protect its own resources, attempts to place as much risk as possible on its clearing members who are responsible for their own trades and must stand behind the accounts they carry. Standard & Poor's favors clearinghouses that have a large, diverse clearing membership base exhibiting a strong financial profile or a high Standard & Poor's credit rating. Within limits, a clearinghouse can compensate for a smaller number of clearing members by requiring them to maintain extremely strong credit standards.

The OCC has 140 clearing members, predominately U.S. registered broker/dealers, with a combined capitalization (equity plus subordinated debt) of about $76 billion. Yet even with a diverse membership base, the OCC has a concentration of clearing volumes within a certain group of related clearing members.

Large securities and commodities firms sometimes try to limit their exposure to loss at a clearinghouse by becoming a clearing member through a minimally capitalized affiliate. In such cases, Standard & Poor's does not automatically assume that the securities or commodities firm stands ready to support its affiliate, the clearing member. If the trading activities at a particular exchange are not of strategic importance, the firm or its parent, in a time of crisis, could conceivably let its affiliate default on its obligation to the clearinghouse rather than jeopardize the firm's own financial health.

Clearinghouses take a variety of precautionary measures to ensure that clearing members will not default on their obligations. High admission standards are the beginning. Standard & Poor's takes into consideration a clearinghouse's requirements for admitting new clearing members. An applicant must demonstrate to the membership committee that its financial strength, operational capacities, and management competence meet the organization's standards.

Standard & Poor's further considers the compliance department's policies regarding clearing member position limits and its ability to monitor and enforce such limits. The compliance department surveils the financial health of its clearing members, requiring them to submit financial reports on a timely basis. Clearing members must also demonstrate their ability to monitor the ongoing creditworthiness of their customers.

Clearing members that are undergoing financial stress or conducting unusual trading activities should be flagged by the compliance department and placed on a watchlist, where they may be required to post additional margin or restrict trading activities. Standard & Poor's evaluates the financial health of the clearinghouse's membership by examining the size and trends of the watchlist, as well as the history of disciplinary actions and clearing member defaults. In cases of default, Standard & Poor's compares a clearinghouse's written procedures with actual experience.

Margin requirements. Because clearing members can and do default, clearinghouses need additional financial resources to fulfill their clearing and settlement obligations with nondefaulting members in a timely manner.

A critical component of a clearinghouse's risk management is its margin or collateral requirements. The margin is, in essence, a performance bond posted by clearing members. Should a clearing member default, the clearinghouse can quickly liquidate any open positions using the posted margin to cover any price shortfall. Ideally, clearinghouses prefer margin requirements that offer the highest degree of protection against possible price movements. Yet competitive factors and pressure from membership prevent clearinghouses from going to extremes in establishing margin levels.

Standard & Poor's examines the size and trend of the aggregate margin collected (in relation to the value of open interest), as well as the calculation methodology, collection, and character of the margin.

Clearinghouses employ a variety of methodologies for calculating margin requirements for its clearing members. Some use simple proprietary models, while others use highly sophisticated models based on option pricing theory. Two popular models used by many futures and options clearinghouses worldwide include the Standard Portfolio Analysis of Risk (SPAN) developed by the CME and the Theoretical Intermarket Margins System (TIMS) developed by the OCC.

Standard & Poor's evaluates the reasonableness of quantitative models and how they are used by the clearinghouse management. Questions that need to be answered in assessing model risk and analyzing margin adequacy include:

- What assumptions (e.g., coverage levels) and historical price observations go into the model?
- What degree of protection does the model provide?
- How much price volatility (two, three, or more standard deviations) does the margin cover?
- How reliable is the model?
- How well does it perform during periods of market turbulence?
- Is margin calculated on a gross basis or net basis?
- To what extent do offsetting or hedged positions reduce margin requirements?
- Does the clearinghouse run the model through stress tests?

As part of the due diligence process, Standard & Poor's tests margin adequacy in covering the clearinghouse's exposure to large members during extreme market movements.

The best modeling techniques are of little value if they are not properly implemented by the clearinghouse. Standard & Poor's looks for margin exceptions, their frequency and size, as well as minimum and maximum margin requirements in relation to the model's theoretical requirements. Standard & Poor's also looks at the ability of the clearinghouse to demand extra or super margin from higher-risk members (such as those with large positions or those that are on the watchlist) or in cases of market emergencies. Standard & Poor's looks favorably on those clearinghouses with a streamlined decision-making process so that they can quickly adjust margin levels to rapidly changing market conditions. Commodity futures clearinghouses may demand extra margin during the spot month because prices tend to be more volatile as contracts approach expiration.

Margin character refers to the acceptable forms of collateral that clearing members can post. Here, liquidity is paramount. The clearinghouse should have policies limiting inferior (that is, less liquid) forms of collateral and haircutting securities that are posted as collateral. Standard & Poor's examines the aggregate margin mix, preferring cash and highly liquid securities to letters of credit (LOCs).

The principal problem with LOCs is that they leave the clearinghouse exposed to the potential default of the issuing bank. For this reason, Standard & Poor's assesses the creditworthiness and concentrations among the LOC-issuing banks. Another problem is that there can be delays in initiating the drawdown of the LOC following the default of a clearing member, leaving the clearinghouse temporarily exposed to market risk.

Standard & Poor's takes into consideration the frequency of margin calls. Margin requirements are typically calculated overnight, based on the closing prices of the day just ended. Clearing members are then required to deposit collateral before the start of the trading day. Commodity futures clearinghouses in the U.S., however, have margin calls twice a day. Standard & Poor's looks more favorably on intraday margin calls that are "collect only" (that is, the clearinghouse collects margin from the member) than on those that are "pay and collect." Margin should be deposited in sound financial institutions, where it is readily available at all times. Standard & Poor's assesses the creditworthiness and concentrations of the depositories approved by the clearinghouse. In cases of margin shortfall, there should be standard procedures for quickly reducing the exposure that a clearing member represents to the clearinghouse.

Standard & Poor's requests clearinghouses to provide reports on the daily pays and collects during periods of market turbulence. For example, the OCC was tested by the October 1987 stock market meltdown. According to the SEC report on the October 1987 market break, the OCC did not collect all margin in a timely manner due to credit-related delays at certain settlement banks. The Barings debacle also illustrates that collecting margin is sometimes easier said than done during periods of market uncertainty. On the day following the Barings insolvency filing, SIMEX notified the other clearing members to post additional margin. According to press reports, however, some members balked because they feared any additional margin payments would be used to cover Barings' losses. These members withheld payment until after the Monetary Authority of Singapore announced that margin payments would not be used for Barings, but solely to cover a paying firm's own positions.

In the U.S., clearing members of commodity futures exchanges must segregate firm from customer margin. From the customer's point of view, margin segregation is important for protecting its assets. From the clearinghouse's perspective, margin segregation enhances its reputation in the world's markets and aids in monitoring customer and firm position limits. Furthermore, margin segregation allows the clearinghouse to quickly transfer customer positions in the event of clearing member default.

Beyond their own margining requirements, clearing members must collect margin from their customers. Customer margin requirements may be set by the clearinghouse, the associated exchange, or by the clearing members themselves. Customer margin requirements should be at least equal to, and preferably greater than, the clearing member's margin requirements.

Additional financial resources. In lieu of, or in addition to, margin requirements, clearinghouses may have other sources of readily available cash to help them meet their clearing obligations in the event of a member default. Such resources may include a parent or government guaranty or a surety bond. For example, OM Stockholm AB and its London affiliate have an unlimited guarantee from their parent company, OM Gruppen AB. Another resource is liquid assets on the clearinghouse's balance sheet. These amounts tend to be small, although one notable exception is the BOTCC, which has over $150 million of short-term U.S. Treasury securities on the balance sheet. The BOTCC can raise additional funds from its clearing members/owners by requiring them to purchase additional shares of the clearinghouse.

More prevalent is a separate clearing fund (sometimes called a guaranty fund or surety fund) to which clearing members must contribute. As with margin, Standard & Poor's studies the size and trend of the aggregate clearing fund (relative to exposure and volatility), as well as the calculation, character, and collection of clearing fund contributions. Standard & Poor's compares the clearing fund to the largest overnight or intraday margin call and stress tests the adequacy of the clearing fund by assuming the simultaneous failure of the two or three largest "collects." In case of a clearing member default and a shortfall in its margin account, the clearinghouse should be able to quickly tap into the clearing fund, first using the defaulting member's own contribution and then, if necessary, other members' contributions. For rat-

ing purposes, there is an advantage for clearinghouses that can tap the clearing fund for reasons other than a member default. For example, a clearinghouse might need to tap the fund to help meet its debt service requirements.

Standard & Poor's looks more favorably on those clearinghouses that have broad powers to assess its members to replenish the clearing fund. Assessment formulas vary and tend to be limited. At one extreme, Mercado de Valores de Buenos Aires (Merval) has no powers of assessment. By way of contrast, the CME has unlimited powers of assessment in what it calls "good to the last drop." This means each clearing member is jointly and severally responsible for the obligations of every other clearing member. Standard & Poor's believes that the mutualization of risk gives clearing members a strong incentive to police fellow members, because their own capital is at risk.

For such powers of assessment to be effective, there should be restrictions on members' ability to exit the clearinghouse. For example, the OCC has broad powers of assessment. But after one special assessment in an amount up to the amount of the clearing fund, clearing members can close out their positions and withdraw. Since OCC has a monopoly on listed U.S. equity options, members have a strong incentive to meet their assessments.

Last, clearinghouses may have backup lines of credit provided by unaffiliated banks or the government. Even if it is a separate and distinct legal entity (as opposed to a division), a clearinghouse may be able to tap the resources of the associated exchange that has a vested interest in the clearinghouse's survival. Standard & Poor's considers these financial resources as necessary final backstops, but accords them only minor weighting in the rating process.

Exchange/Clearinghouse Operations

Financial performance. Whether run as a for-profit or as a not-for-profit enterprise, exchanges and clearinghouses must be able to generate sufficient earnings over the long run. As with all financial institutions, Standard & Poor's examines the trends and components of core revenue and the fixed/variable cost structure. Yet because of the cooperative nature of clearinghouses and exchanges, traditional measures of profitability, such as the return on assets, are not very meaningful. These institutions operate for the benefit of the members, who are both customers and owners at the same time. Management sets fees and service charges not to maximize profit, but rather, to support the essential services that members require. Particular attention is paid to an exchange's or clearinghouse's ability to raise fees (or reduce rebates, if any) in times of need given the context of both competitive pressures and membership influences. Standard & Poor's also weighs the power of the exchange to assess the broad membership. To be effective, such powers should not require a membership vote, but rather, a decision of the board of directors for reasons it deems necessary.

Operating leverage at an exchange or clearinghouse is substantial because revenues are largely composed of transaction fees that are a function of trading volumes, while expenses, at least over the near term, are mostly fixed. Standard & Poor's stress tests exchanges and clearinghouses for their ability to withstand significant drops in trading volume and still cover their heavy fixed cost base.

Standard & Poor's assesses capital adequacy by measuring the size and trends of the equity foundation relative to market exposure, not the assets on the balance sheet. This approach is akin to Standard & Poor's methodology for rating asset managers, whereby the ratio of equity to assets under management, rather than equity to assets on the balance sheet, is a more meaningful measure of capital adequacy. If the exchange has taken on debt or other financial obligations, such as a long-term lease, Standard & Poor's analyzes financial leverage and forecasts cash flow generation under a variety of scenarios in relation to debt service requirements. Again, common measures of financial leverage, such as the debt-to-capital ratio, may not be meaningful. Alternatively, Standard & Poor's considers the ratio of debt to aggregate seat price (that is, most recent sale price times the number of full members), which acts as a proxy for market capitalization. Similarly, historical earnings or EBITDA interest coverage multiples do not fully capture an exchange's capacity to service debt without considering its co-operative structure and financial flexibility.

As part of its due diligence process, Standard & Poor's takes into consideration not only on-balance sheet liabilities, but also contingent liabilities, such as pending lawsuits or regulatory actions.

Operations. To meet the demands of members and the trading community at large, exchanges and clearinghouses must have exceptional computer systems and back office capabilities. Each day they must process a multitude of transactions and track trading activities for compliance purposes. An exchange's or clearinghouse's reputation hinges on its ability to compare, clear, and settle both sides of a trade accurately and on a timely basis. Standard & Poor's, as part of its due diligence, reviews the back office operational capabilities of an exchange or clearinghouse, whether conducted in-house, outsourced, or shared through common industry utilities. Among the items that need to be reviewed are the computing system's capacity and redundancies, as well as security of both the data base and physical facilities. Exchanges and clearinghouses must have formal disaster recovery plans covering file backups, off-site processing, and alternative power sources. These plans should be tested via periodic fire drills.

Miscellaneous

Exchanges and clearinghouses are competitive enterprises that must continuously enhance their services to benefit traders. One way is by introducing new products to be traded. Standard & Poor's reviews the research and development function and its track record in bringing new products to market. Exchanges and clearinghouses may also provide ancillary businesses indirectly related to their primary functions. For example, Cedel extends short-term credit to its members so they can complete their transactions. The Caja de Valores, beyond its primary responsibility of safekeeping Argentine government bonds and corporate securities, also acts as registrar for over 100 listed corporations and provides data processing services to Merval and the Bolsa. Standard & Poor's, as part of its rating analysis, determines whether any ancillary businesses or affiliates add to or detract from the underlying creditworthiness of an exchange or clearinghouse.

Rating Asset Management Companies

In rating asset management companies, Standard & Poor's reviews the company's profile and business mix in conjunction with its financial performance and strength. Rated institutions have ranged from retail mutual fund complexes to institutional-only asset managers to a combination of the two.

In reviewing the background of a particular company, considerations include the company's track record and its reputation in the marketplace. Standard & Poor's assesses the company's acquisition history, ownership structure, and organizational structure in terms of operations, management, and subsidiary ownership. Because each business segment has somewhat different competitive and earnings dynamics, Standard & Poor's carefully considers the company's business mix, which for most asset management firms is:

- Retail mutual fund management;
- Institutional asset management; or
- Combination of both.

Competitive Position

Because of the intensifying competition in this industry, it is important to a company's future viability to have a solid competitive position. The competitive dynamics vary, depending on which segment of the asset management business the firm is engaged in.

Retail mutual fund business. It is essential for retail mutual fund companies to have strong distribution and marketing strategies. For mutual fund firms that sell through external sales forces, it is imperative to have a well-established and well-diversified network of salespeople at national and regional brokerage firms, banks, insurance companies, and financial planning firms. Many of these companies have very heavy concentrations with just a few institutions, which could pose risks as shelf space for mutual funds is at a premium. Many in the field are trying to increase the percentage of their sales generated through other financial intermediaries, including banks and independent financial planners, an increasingly popular sales channel for reaching individual investors. Typically, a company will have a wholesale sales department that interacts with the external sales force. These relationships, coupled with good client service to the sales force, are extremely important.

Direct marketers of mutual funds rely almost exclusively on advertising and promotion to sell their mutual funds. These complexes sell directly to the shareholder and usually do not charge a commission to the investor. These companies must invest heavily in advertising and have large internal sales and support staffs to field investor calls and inquiries.

Another key competitive factor is how the mutual fund companies price their funds. In general, there are two pricing options, "no-load" funds and "load" funds, referring to whether there is a sales charge to purchase the mutual fund. Most direct market mutual fund complexes do not charge a load, while the fund complexes that use a third-party distribution system do. Over the past several years, more pricing options have become available on load funds. In the U.S. for example, three of the most common pricing options include Class A, B, and C shares. Class A shares are offered at net asset value plus a sales charge of typically 4%-5%. Class B shares are sold without a load paid by the investor; rather, the mutual fund company funds the sales commission to the financial intermediary at the point of sale. The fund complex is then reimbursed over time via the mutual fund's charging an additional fee to the investor under Rule 12b-1. In addition, many class B shares also charge an exit fee, commonly referred to as a contingent deferred sales charge. These 12b-1 and exit fees usually diminish over several years, at which time the class B share will convert to a class A share. Class C shares typically are offered at

net asset value to the investor but do include a 12b-1 fee. These shares, however, generally do not convert to class A shares. In pricing load mutual funds, companies have to walk a tight line, balancing appeal to the commissioned sales force to sell the fund and appeal to investors.

Along with a strong distribution network, it is advantageous for a retail mutual fund company to have a well-diversified product mix of funds. A company is more likely to have an investor become part of its "fund family" by having a variety of funds that satisfies the investor's diversified investment needs. Also, a well-rounded product mix protects against extreme market turns. For instance, if the U.S. stock market plummets, instead of redeeming out of the fund complex, investors may choose to transfer funds to safer short-term bond or money market funds. In looking at product mix, Standard & Poor's will also review whether a fund is overly concentrated in funds with high potential for market volatility. From a rating perspective, a mutual fund company should not have its funds under management concentrated in just a few mutual funds. Standard & Poor's considers it a positive for a fund company to have a track record of introducing new funds with long-term secular appeal, such as international funds or single-state municipal funds.

The performance of a company's funds also is important to the entity's competitive advantage. Funds that perform well are easier to sell and promote, and may get publicity from analysts and periodicals. In general, Standard & Poor's believes it is better for a complex's funds to have long-term, above-average track records than for a company to have a few current high fliers that could plummet given a change in market conditions.

Institutional asset management business. The institutional asset management business involves asset management for institutional clients such as corporate and municipal pension plans, endowments and foundations, and other corporate and public moneys. These funds are typically managed either as mutual funds open only to institutional clients or the individual portfolio management of a separate account. In this area, the investment performance track record of portfolio managers is key to attracting and keeping investors. Individual client service and shareholder reporting are also important. Individual accounts could be a large percentage of the asset manager's total assets under management, subjecting the asset manager to a risk of impaired performance should a larger account leave. Another subsection of institutional asset management involves the management of money market funds. These funds are primarily fiduciary and sweep monies from bank trust departments and smaller broker/dealers. This business is very much a commodity-type business in which the product is not easily differentiated, so competitive advantage is based on yield and management fees. The flow of funds in this business may be highly volatile. Therefore, in reviewing a company's institutional money market business, Standard & Poor's pays close attention to shareholder concentrations. Marketing and service to individual clients also are important competitive aspects.

As a general rule, Standard & Poor's more favorably views asset management firms that have a combination of retail and institutional business—to help diversify revenue streams—than a firm with only one business segment.

Financial Management

Profitability/cash flows. In analyzing profitability, Standard & Poor's assesses a company's revenue mix and level of operating expenses and expense control, and its cash flow generation capacity. In general, sizable fund management companies with efficient operations have the potential for strong earnings power resulting from the management fee revenues generated from a large off-balance sheet asset base. Most of a fund management firm's revenues likely will be from management and advisory fees. These fees are usually calculated as a percentage of the average dollar amount of assets under management. This adds an interesting dynamic to the analysis, as the firm could be attracting funds from sales, but losing overall value in assets under management due to declining markets, and vice versa. Therefore, Standard & Poor's pays close attention to components that are driving changes in the firm's assets under management. Management fees vary depending on the business mix (retail mutual funds versus institutional managed accounts) and the asset class mix (equity versus fixed income, domestic versus international). Fees for retail fund management are generally higher than for managed institutional accounts. Fees for advising funds that require more research and portfolio management expertise (such as certain equity funds and international

funds) will likely be higher than fees for advising funds such as fixed-income funds. Although management fees are typically an asset manager's largest source of revenue, other significant revenue streams are generated from distribution, shareholder services, and transfer agency fees. These fees, however, are more commonly associated with retail mutual fund firms. Standard & Poor's also will assess revenues that the company may derive from other business lines, such as banking operations or real estate activities. An asset manager's most significant operating expense likely will be compensation. The expense structure should be analyzed in terms of how much is variable and, therefore, what portion of expenses could be eliminated in a business downturn.

The strength of an asset manager's cash flow is analyzed in terms of EBITDA. Standard & Poor's analyzes a number of cash flow scenarios, including adjusting EBITDA for certain other cash outflows, in determining the strength of EBITDA in covering the company's interest and debt payment obligations.

Leverage/capital. Because asset management companies' core business is off-balance sheet, these companies tend not to have a large amount of on-balance sheet assets. When a firm does have a large balance sheet, many times a large component of the balance sheet is composed of intangibles. Asset management firms vary as to whether they maintain any significant amount of tangible capital, and many do not. Standard & Poor's views favorably companies that maintain capital and liquid investments because of the obvious financial strength and flexibility equity reserves provide to meet unforeseen contingencies.

Operations

In analyzing an asset management firm, Standard & Poor's also assesses the firm's operations, including the portfolio management area and shareholder accounting. Close attention is paid to the organization of the portfolio management/research area, professional experience of the management and research staff, and managers' investment philosophies. Since much of an asset manager's franchise is based on the quality of its portfolio managers, turnover rates of key portfolio managers is also scrutinized. Standard & Poor's also reviews the firm's investment decision-making process, risk management, and trading procedures. Shareholder accounting is another significant operation. Asset managers should have good systems in place to ensure their portfolios are being priced correctly and that shareholder accounts are being administered correctly. Mistakes in these areas are costly, especially in terms of the company's reputation.

Rating Managed Funds' Unsecured Creditworthiness

Standard & Poor's has updated its methodology to determine the unsecured creditworthiness of a managed fund, commonly known in the U.S. as a mutual fund and in the U.K. as a unit or investment trust. This methodology also applies to rating hedge funds. Standard & Poor's is able to assign debt or counterparty ratings to such funds, with the ratings reflecting the likelihood of a fund's defaulting on a debt or other obligation. This methodology will apply to all types of funds, including equity, bond, and money market funds.

Standard & Poor's unsecured credit assessment of managed funds will be based on its framework for analyzing financial institutions, paying close attention to the following broad areas:

- Assets (composition, distribution);
- Portfolio management (investment policies, practices, risk profile);
- Liquidity (asset liquidity, redemption risk);
- Profitability/performance (shareholders' total return, investment income, expenses);
- Capitalization/borrowings/leverage;
- Adviser/governance/operations; and
- Legal/regulatory.

Rating Methodology

Assets. A substantial part of the credit analysis of a managed fund entails a detailed review of its investment portfolio, policies, and practices. Also key are management's investment philosophy, overall strategies, and strategies in relation to market volatility and other changes in market conditions. While the quality of assets and performance are considered in assigning a rating, it is not explicitly a comment on either—that is, it is not an assessment of the investment performance of a fund. The crux of this review is to isolate and analyze the risk components that could cause market value fluctuations in the portfolio: credit risk, event risk, interest rate risk, and liquidity risk. Standard & Poor's believes that broad diversification of investments reduces risk and increases investment flexibility. A fund's track record in managing market volatility and flow of funds, both in and out of the fund, also plays a significant part in the rating process. While portfolio managers play a significant role in managing a fund, components such as market research and distribution must also be analyzed.

Standard & Poor's considers the following factors in the course of a portfolio management review:

- Investment objective, philosophy, strategies, policies, and practices;
- Permitted/eligible investments represented in the prospectus or other descriptive documents versus internal policies;
- Approval and selection process of investments;
- Diversification/limits by type of security, issuer, counterparty, and/or industry;
- Role of market, credit, and counterparty risk;
- Policy on portfolio liquidity;
- Permissible futures, options, swaps, and other derivatives activities;
- Specific trading strategies, including leverage and hedging;
- Prohibited/restricted activities;
- Growth in net asset value (NAV) based on funds inflow/outflow and market value appreciation/depreciation;
- Actual mix of securities types;
- Change of portfolio mix in light of market conditions; and
- Percentage of illiquid or unregistered securities.

The review will also encompass analysis of different portfolio asset classes and the factors relevant to each asset class's potential market value volatility, such as:

- Equities—Market capitalization, industry mix, and domestic versus international exposure;
- Money market and fixed income—Credit rating, maturity, duration, yield, call risk, issuer size, outstanding issue size, industry mix, geographic mix, MBS structure types, and domestic versus international exposure; and

- Derivatives activities—Specific strategy, counterparty risk, and hedging versus speculation purposes.

Standard & Poor's would view a relatively low-risk fund as one with an investment portfolio with a high degree of diversification and marketability. Even a well-diversified equity portfolio could be considered of low to moderate risk. Diversification among instrument types also could limit a fund's potential market value volatility. Some single-sector funds probably would be considered high risk.

Liquidity/funding. Liquidity is an important concept for fund analysis. Open-end funds, which constantly issue and redeem shares, are especially sensitive to liquidity measures. The redemption price is usually the NAV of a fund, which is calculated as assets minus liabilities.

Liquidity is a less important rating factor for closed-end funds, which do not issue redeemable shares. Instead, its shares trade in the secondary market, typically on a stock exchange. Depending on the nature of the fund, a closed-end fund may maintain a certain amount of liquidity for flexibility so that its portfolio composition can be altered more easily if market conditions significantly change.

Another factor that could affect the liquidity requirements of a closed-end fund is its ability to make a tender offer for a portion of its shares and make open-market purchases. This is sometimes a scheduled redemption, for example on a quarterly basis, if certain conditions are met, such as a large discount between the fund's share price and its NAV. Standard & Poor's will monitor the likelihood of a fund's taking any such action and review the notice and payment provisions, as well as seek assurances that sufficient liquidity will exist to meet redemptions at NAV.

The source of internal liquidity for a fund is the cash flow generated from portfolio assets—that is, investment income and realized gains on asset sales. This available cash flow will be reduced by operating expenses, any interest payments due on debt obligations outstanding, and any other liabilities. Another source is the potential sale of portfolio assets. This source may be reduced by the amount of assets segregated in connection with borrowings or derivative transactions. The marketability of portfolio assets is very important. Standard & Poor's will review what proportion of a fund's investments is marketable and illiquid securities.

Open-end funds can also generate liquidity from net proceeds from sales of shares and from the reinvestment of shareholder distributions. This liquidity source, of course, can be more than offset by redemptions.

Redemption risk is one of the biggest risks for an open-end fund as it can cause a snowball effect. When heavy redemptions are most likely to occur (that is, during a portfolio market value slide), the primary source of funds to meet these redemptions—the sale of portfolio assets—is also sliding in value, causing the fund's equity base to evaporate quickly.

Redemption risk may be high for funds with volatile portfolios; redemption risk may therefore be analyzed in terms of the inherent riskiness of a portfolio and that portfolio's historical total return. A sharp sudden drop in the market value of a portfolio could cause a rush by shareholders to redeem.

Another key component of analyzing redemption risk is consideration of the nature of the shareholder base. Redemption risk may be greatly heightened if the ownership of shares is not widely dispersed, but concentrated in the holdings of a small number of shareholders. If possible, it is helpful to analyze whether the holders have long- or short-term investment horizons and attempt to surmise whether they would readily redeem given a sharp drop in NAV. It may be the case that a few large, sophisticated holders have certain incentives to stay in a fund that is declining in value. Alternatively, large institutional shareholders could redeem at the first sign that a fund is not offering a competitive return.

Profitability/performance. Performance of funds may be measured by reference to the net increase (or decrease) in assets resulting from operations. Essentially, this is composed of investment income less operating expenses and other expenses including any debt costs, plus realized gains/losses on investments, plus changes in net unrealized appreciation/depreciation on investments.

A fund will usually calculate some type of statement of changes in net assets showing that any increase/decrease in net assets from operations will be reduced by the payout of dividends and distributions to shareholders. In general, this payout, plus unrealized investment appreciation, is shareholders' total return. For closed-end funds, a shareholder's return is based on the movement of the stock price, plus any distributions, rather than the movement in the NAV.

A large component of operating expenses for a fund is the management/advisory fee. Other significant expenses may be distribution fees, transfer agency fees, custodian fees, and debt service.

A performance review should cover about a five-year period and, if possible, encompass historical periods of extreme market volatility. Attention will be paid to fluctuations caused by financial market volatility, any change in portfolio composition or investment strategy, inflow/outflow of funds, and the like.

An analysis of the total return to investors should include the fund's performance over one, three, five, and ten years, if applicable. To be meaningful, the return should be compared with that of funds with similar investment policies and objectives and against appropriate benchmarks (for example, the S&P 500).

Capitalization/leverage. Generally speaking, a fund's equity base is made up of its net assets, which may be viewed as available to cushion against losses. In their claim on the net assets, a fund's debtholders and contractual counterparties are in a senior position to its equity holders.

An issue arises, however, regarding the quality and permanence of an open-end fund's equity base, as net redemptions in the fund will cause a reduction in equity. While a closed-end fund's equity base is more permanent, an open-end fund's equity base is affected by a number of factors and could change radically within a short period because of portfolio asset market value declines and redemptions. These factors would likely occur in tandem, exacerbating any equity decline.

Any change in equity will of course be linked to market volatility of the portfolio assets and the level of redemptions; therefore, the analysis of capital must be tied to judgments on the portfolio assets' potential market value changes and the severity of redemptions. The nature of the shareholder base will also come into play in the analysis of capital. This being the case, the amount of debt and other counterparty exposure is highly relevant in the rating process.

Leverage must be viewed in a more conservative manner if a managed fund has off-balance sheet obligations, such as derivatives. Standard & Poor's believes that capital should be measured relative to on- and off-balance sheet obligations.

Relationship to advisor and operations. In analyzing a fund, Standard & Poor's will broadly assess its investment adviser, focusing on the adviser's management, reputation, and solvency. If an adviser is a stronger credit than the fund, Standard & Poor's will not assume that the adviser would provide financial support for the fund if the need arose. If an adviser is a weaker credit than the fund, Standard & Poor's will analyze whether potential negative publicity surrounding the adviser could cause a redemption/liquidity problem for the fund.

It is relatively easy to determine whether an investment company is a separate legal entity from its investment adviser and whether the company's assets would be consolidated in the event of the adviser's bankruptcy. Funds normally have no employees of their own and look to the adviser for portfolio management, research, distribution, and other services, however. The better the financial health of the adviser, the better able it should be to provide high-quality support and service to the fund.

A fund may look to its adviser at other times as well. For instance, several advisers have contributed capital to a fund to keep it from failing and out of bankruptcy. In addition, some asset managers in the U.S. have voluntarily purchased securities from money market funds to prevent the funds from breaking their $1 net asset value per share. These actions were taken because the advisers were concerned that their reputations would be seriously damaged. Conversely, negative publicity surrounding an investment adviser could cause massive redemptions and a possible liquidity crisis for a fund.

Standard & Poor's will also conduct operations reviews within the context of assessing a fund's creditworthiness. In particular, portfolio management and investment research staffs would be reviewed in terms of staff size, organization, and experience level. The process for and controls on implementing trades would be reviewed, as would portfolio pricing and other back-office operations.

Standard & Poor's will also look into the composition and role of a fund's board of directors or other governing body, and the activities of independent auditors.

Legal/regulatory. Standard & Poor's will review a fund's legal and regulatory framework as part of the rating process. Close attention will be paid to whether or not a fund is subject to any regulation, and if so, how comprehensive and rigorous is the regulation.

Rating Methodology for Government-Supported Entities

The economic role of governments in many countries is undergoing considerable transformation. Increasingly, governments are relying on market mechanisms to address the inefficiencies of the public sector. Even where privatization is not currently on the political agenda, policymakers worldwide are showing a growing tendency to expose remaining government-supported entities to market discipline.

In recent years, Standard & Poor's has adjusted its methodology for rating government-supported entities to reflect these trends. Whereas twenty years ago, ratings of such institutions were most often equalized with the ratings of their owner-governments, Standard & Poor's analytical approach has shifted toward an increasing focus on the stand-alone credit quality of the entity, and on determining the durability of the entity's links with the government. This approach is aimed at ensuring that government support is measured consistently and, where there is evidence that support is being reduced, that greater weight is given to stand-alone credit factors when determining the appropriate issuer rating. Abrupt changes in ratings thereby are minimized.

Standard & Poor's is now further refining its analytical approach toward rating government-supported issuers to more rigorously determine the extent to which the rating on such public sector entities is linked–if at all–to that on the government. This revised analytical approach reflects:

- Evidence in a growing number of countries of a reduction in government commitment and support for public sector enterprises. The privatization of enterprises, including entities once thought to be a permanent part of the public sector, is now relatively commonplace. Occasional defaults of public sector enterprises have been allowed to occur, and governments' official statements of support for public sector enterprises have become weaker or less clear-cut.
- The widespread sale of state enterprises, and policy developments such as competition policy in the EU, which not only are encouraging privatization but, equally important, are discouraging the use of government guarantees and other forms of ongoing state support.

Standard & Poor's analysis of the extent of government support for a public sector enterprise, if any, begins by classifying the entity on a continuum that currently encompasses three categories. The first and smallest category consists of public sector entities that Standard & Poor's considers to be most closely integrated into the government and its finances. The second category includes entities that are less closely tied to the government, but have a public policy role in which the government defines their performance and prospects. The last and largest category includes those entities that benefit from supportive government policies and possibly direct assistance, but that, whether currently regarded as such by the government or not, are most capable of functioning independently from it. This classification, in turn, has a bearing on the degree of rating enhancement for issuer ratings based on government support.

Stand-Alone Ratings

Irrespective of the three categories under which the government-supported issuer is classified, the first analytical step is a determination of the entity's stand-alone rating. This is critical as it identifies the downside, or credit cliff, should extraordinary government support not be forthcoming in times of crisis. It provides important information about the asset quality of the owner-government, which may be relevant to the entity's own credit profile.

The stand-alone rating thus reflects the public entity's various strategies, performance, and prospects that are evaluated in accordance with

criteria that Standard & Poor's has established for that specific type of entity. The analytical process includes comparisons with the entity's competitors, both locally and internationally.

Also, and particularly where privatization or reduced government involvement is on the agenda, Standard & Poor's makes assumptions as to what changes to the entity's capital structure and business focus are likely to take place on the way to privatization. This results in a stand-alone rating that is forward-looking and necessarily subjective, but that is nonetheless useful in managing the issuer's rating transition up to a possible eventual privatization.

For many government-supported entities, however, the determination of a stand-alone rating is not so clear-cut because of the intricacy of the government's involvement in many aspects of the entity's operations. This can include access to preferential funding, a monopoly position, favorable contracts, and sympathetic regulatory regimes, all of which are difficult-to-isolate forms of support that enhance both operational and financial performance. Conversely, price ceilings, risky investment project mandates, and directives to provide loss-generating goods and services represent forms of government intervention that constrains operational and financial performance. In these cases, assuming a sudden and complete stripping away of all forms of government influence may be neither practical nor informative. As such, the one assumption made in determining the stand-alone rating is that the government will not specifically intervene to maintain the solvency or liquidity of the public entity, or in other words that the government will not bail out the enterprise in a crisis. In short, Standard & Poor's applies the criteria for the type of entity being rated on the basis of that entity's existing business profile and financial position, including whatever government support or intervention the entity typically enjoys in the normal course of business, but excluding credit for any extraordinary government assistance that might be expected in the event of a crisis.

Enhancement For Government Support

Following the determination of the stand-alone rating, consideration is given to government ownership and support.

Three broad categories of government-supported entities. In assessing the credit implications of government ownership or relationship, Standard & Poor's generally classifies government-supported entities in one of three broad categories:

- High integration with the government. This is the smallest and a shrinking category of public-supported entities.
- Policy-based institutions, whose credit standing is linked to that of the government; and
- Other enterprises, where the relationship with the government is supportive and often enhances the entity's underlying credit strengths through helpful policies and the possibility of direct assistance. This category includes the majority of rated and unrated government-supported entities.

The purpose of this categorization is to clarify Standard & Poor's thinking about the relationship between the government and the entity concerned. It recognizes that there are a variety of relationships that imply varying degrees of government help, and varying degrees of certainty regarding government intervention. Standard & Poor's task is to evaluate the appropriate type of government support and factor it into the ratings in a coherent and consistent manner.

The strongest form of government support implies equalization of the ratings between the public enterprise and its owner-government. For policy-based institutions, depending on conclusions about the government's willingness and ability to provide support, the rating would, in general, be within two rating categories of the government's. For other public enterprises benefiting from a "supportive" government, the issuer rating would generally be no more than one rating category above its stand-alone rating.

Defining the Three Categories

In classifying the relationship between the government and the government-supported entity, the guidelines and reasoning outlined below are applied:

High integration. The rating on the public enterprise is generally equated with that on the owner-government when the entity is a government department, ministry, or an agency that is either the source of substantial budgetary revenue, has a constitutionally or legally mandated place in the machinery of government that is difficult to change, or engages in activities that cannot readily be undertaken on a commercial basis. Government

support does not result solely from the entity's policy role or importance, but rather from its place in the processes of government. Trends in the treatment of similar entities in other countries that enjoy a similar privileged status are relevant. The debt of these entities may or may not receive explicit guarantees from the government.

Changes in government policy could mean that entities in this category will migrate to other categories over time. Examples of entities currently falling into this category include:

- Most government ministries;
- State oil monopolies (with few exceptions, based in developing countries);
- Deposit insurance agencies; and
- Export credit institutions (with some exceptions in both developed and developing countries).

Public policy-based entities. This category differs from the first in that it encompasses a broader variety of entities for which government support is based on a defined public policy role. Support is both a matter of policy and law, but (in part based on trends in other countries) is more subject to change and so is less robust than for entities in the first category. This support may be expressed, in part, through statutory or ultimate—rather than timely—guarantees (see section on discussion of guarantees). In general, issuer ratings may differ from government ratings by up to two categories.

Even when government support is assessed as very strong, it is often less than totally certain, and a rating differential between the government and the government-supported entity may be appropriate. Government support is not simply a matter of a positive attitude and supportive disposition. Standard & Poor's must be convinced that the government could and would intervene to avoid default by the enterprise. The degree of likely support for some emerging markets-based public sector entities, in particular, may be limited because of their number and because the government may have a limited financial capacity to support them. Some public sector entities that historically were viewed as critical instruments of government policy may no longer fall into this category because of the changing stance of the government toward them, reflecting a decline in willingness to provide support, rather than limited ability.

The degree of notching that is appropriate to consider in individual cases will reflect the stand-alone rating of the government-owned entity, the government's rating, and Standard & Poor's assessment of the robustness of government support. Rating distinctions of up to two categories may occur. (When the government's rating is lower, in most cases there will be greater convergence with the government-owned entity's stand-alone rating, by virtue of the stand-alone ratings providing a lower limit). A rating distinction within a single category of that of the sovereign is generally appropriate when the enterprise benefits from a statutory guarantee, the government is rated in the 'AA' or 'AAA' categories, the government's relationship with the entity is regarded as stable, and the number of government-supported entities is relatively small. A larger rating distinction addresses situations where there is no statutory guarantee, there are many government-supported entities with ambiguous or diminishing public policy roles (which, in aggregate, pose a significant contingent financial risk to the government) and situations where the risk of privatization of the rated entity is deemed to be rising.

In particular, Standard & Poor's will consider the following issues:

- The track record of support for government entities.
- The formal policy regarding support and Standard & Poor's evaluation of the policy.
- The mechanisms that are in place for diagnosing and responding to financial distress. Whether the government has financial assets available that can be readily mobilized to assist the entity.
- The financial and political self-interest of the government in keeping the public entity solvent.
- The likelihood of access to the debt markets by the government or its other business entities being compromised in the event of a particular entity defaulting.
- The importance of continued, unimpeded access to debt markets for the government. The stability of policy-making procedures and the administrative and political culture.
- The core public functions, if any, carried out by the public entity.
- The entity's economic and political importance, visibility, and sensitivity; its ranking in terms of order of importance to the government versus other public sector entities; and its public policy role compared with similar entities in other countries.

- The likelihood of private sector entities providing the same products or services on a commercial basis.
- The government's policy and track record regarding privatization. Whether the government assumes liabilities or re-capitalizes companies upon privatization.
- The clear allocation of responsibility for government support and intervention. The definition of responsibilities for government officials, departments, or ministers. The rigor and regularity with which the government monitors the financial position of these entities.

Quite clearly, these issues are not always clear-cut and will be balanced out within the context of the direction of government policy and indeed the underlying credit strength of the enterprise itself in reaching a final rating conclusion. For some emerging market governments, support may be more questionable where the legal system and governance is weak, and where there are a number of entities relying on such support. In these instances, as well as when privatization prospects are significant, the issuer rating is essentially driven by the inherent credit attributes of the enterprise itself.

A rating committee, notwithstanding the current government policy, might take account of privatization risk over the next three to five years when considering its rating decision. The ultimate rating decision might take into consideration the time horizon of privatization risk, the likelihood of a reversal in current policy, and the stand-alone rating. Within Europe, the impact of EU competition policy on state ownership and support looms large as an issue which might pressure governments to change policy and pursue privatization, or to at least limit government support. The role of EU policy is also an issue in the rating of the German Landesbanks.

Other public entities. The third category includes an array of government-owned enterprises that lack a defined public policy mission. The rating of entities in this third group is generally within one category above the stand-alone rating. The debt of these entities does not benefit from either full-faith-and-credit or ultimate guarantees. In these cases, government credit enhancement reflects two broad sets of circumstances. First, it encompasses situations where government support is possible, but without much certainty. Second, this category encompasses situations where the government does not hold itself out as the ultimate guarantor, but where it acts in a "supportive" manner and as such reduces the business risks faced by the entity.

Specific characteristics of entities in this category include:

Probable support. Government officials have asserted support and pledged to assure avoidance of default. However, Standard & Poor's may have doubts about institutional stability, administrative process, or the ability to diagnose and promptly respond to financial distress, when:

- Government officials have asserted support. However, Standard & Poor's believes an upcoming possible privatization, or an existing partial privatization, contradicts the logic of support or erodes the identity of interest between the government and the enterprise.
- There is a situation of unacceptable ambiguity, where the government has a track record of avoiding default by its enterprises, but its official or stated position is one of nonsupport. Ambiguities of this kind point to an analytical approach that puts very little or no weight on the government relationship, but that essentially focuses on the enterprise's own credit attributes.

Supportive government. The government indicates its support for an entity demonstrated through favorable policies, which may be substantiated by a variety of measures including restrictions on competition, pricing policies, preferential access to credit, favorable business transactions, access to profitable business opportunities, willingness to subscribe equity, or other relevant measures.

The government may provide assistance through favorable industry policies, including taxation breaks or policies, duties on competing imports, provision of infrastructure, or helpful directives to other public sector entities.

Government Guarantees

Some government-supported issuers have outstanding obligations benefiting from a timely, full-faith-and-credit government guarantee. These guaranteed obligations are always rated the same as the government's rating. However, the issuer credit rating will not necessarily be the same, despite the current level of support indicated by the guarantee. To determine an issuer credit rating (and thus the rating assigned to unguaranteed debt), the entity is classified into one of the above-mentioned categories.

Issuer ratings for government-supported entities enjoying a statutory or ultimate, rather than a timely guarantee, are also rated in accordance with the methodology outlined above. As already suggested, these entities are generally placed in the first or second categories of government-supported issuers.

Summary

Broadly categorizing government-supported entities in accordance with the nature and stability of the relationship with the owner-government should enhance the consistency of credit ratings. This approach provides a clear and simple means of tackling the variations in the nature of the relationships between governments and government-supported enterprises, while recognizing the ongoing evolution of these relationships. Relationships between public enterprises and governments are often unclear or seemingly contradictory. Some governments have a clear track record of supporting certain entities even though the stated policy is one of nonsupport. Some governments treat their enterprises badly, refusing price increases or imposing unprofitable tasks. This sometimes implies acute credit risks, while at other times it reflects and deepens the government's moral obligation to the entity. Governments often deal with public sector enterprises arbitrarily, precisely because they are government-supported and therefore do not need a strong financial profile to continue to trade and access the financial markets. The task of Standard & Poor's is to evaluate the relationship, while recognizing that government support is not a black-and-white issue.

Footnotes.

1. "Government-supported entities" include enterprises in which the government has majority ownership, such as industrial concerns, utilities, financial institutions, and other enterprises producing a product for a fee. In rare cases, the enterprise may have little or no government ownership, but its role as a provider of an important product or as a large employer suggests that it could rely on some degree of government support.
2. The processes outlined here describe the methodology for assigning local currency issuer credit ratings. Regardless of the local currency issuer rating, the foreign currency issuer credit rating of government-supported entities is capped by the sovereign's foreign currency rating. This reflects the high likelihood that obligations of public sector entities will be restructured in a sovereign default scenario.

Group Methodology for Financial Services Companies

The accelerated pace of consolidation has heightened the complexity of analyzing financial services groups. This trend is expected to continue on a global basis. To capture the risks and strengths of this changing terrain, Standard & Poor's has developed and refined its analytic methodology for rating the individual companies within financial services groups.

In many cases, Standard & Poor's expects that subsidiaries will be supported by their parent group, but increasingly it has become necessary to question the ongoing nature of this support in the context of how the subsidiary fits into the long-term strategy of the overall financial services enterprise. Indeed, over the past few years, a number of financial services groups have divested major subsidiary operations or have refocused and redefined subsidiaries that had previously been considered central to their commercial strategy. On the other hand, the refocusing of operations has also occasionally led to changes in which some previously peripheral subsidiaries have become much more integral subsequent to a redefinition of strategy.

A more dynamic management style requires a more dynamic analytic process. During this analytic process, two principal issues need to be addressed:

- What is the overall financial security of the group?
- How does each entity in the group, whether a holding company or an operating company, fit into the overall group structure, and what would be the likelihood of group management proving willing and able to support each such entity if significant capital support were required? Conversely, what is the likelihood of group management wanting to sell, putting into run-off, or, ultimately, being capable of walking away from a given group member?

When addressing these issues, Standard & Poor's believes that for many financial services groups, it is appropriate to evaluate operating banks, insurers, holding companies, and other subsidiaries both on an individual basis and in the context of the aggregate financial security of the group. Standard & Poor's also believes that even if a group isolates its riskier lines of business into a so-called bad subsidiary, such segregated risks should not be ignored when analyzing the group. The methodology for analyzing financial services groups attempts to provide a consistent framework for assessing the creditworthiness of the entire organization as well as the individual (rated) entities within it.

Standard & Poor's approach essentially comprises three stages:

- Undertake a consolidated and unconsolidated group analysis to allow notional group ratings to be confidentially assigned across the entire group as though it were a single corporate entity.
- Establish confidential stand-alone and status quo ratings for each individually rated entity within the group.
- Complete the analysis by designating each rated entity within the group as either core, strategically important, or non-strategic to the ultimate parent group and adjust the final public rating accordingly to reflect the appropriate level of group support.

Group Financial Analysis

The first objective of the group analytical exercise is to establish a set of notional (non-public) aggregate ratings for the financial services group under review. By looking at all the operating and holding-company units that are material to the group in terms of size or risk, aggregated ratings are determined that are applicable to the consolidated group risk profile as if it were a single corporate entity. Such aggregated core group ratings become the reference point for any public ratings that may subsequently be assigned to the individual legal entities that actually constitute the group. This group analysis is based on a combination of consolidated and individual company financial data, and the ratings so derived are usually indicative of the counterparty credit, senior debt and, for insurers, financial strength ratings that are deemed

applicable to the main operating companies of the consolidated group. These notional core group ratings are internally assessed in respect to the main operating and holding company entities across the group. However, those notional ratings applicable to pure holding companies within groups are derived indirectly, usually by notching down by between one and three ratings notches from the notional core group counterparty credit rating assigned to the main operating companies of the group. Any notching or gapping between the notional operating and holding company ratings reflects perceptions of greater default risk for a group's (unregulated) holding company liabilities than for that same group's (regulated) operating companies.

Stand-alone and status-quo analyses of individual entities. In the second phase of the group analysis, Standard & Poor's subjects each rated subsidiary to a full credit assessment, including both financial and nonfinancial factors. This process initially produces both a stand-alone and a status quo rating assessment of the individually rated legal entities within the group.

The stand-alone rating is a rating committee's confidential assessment of what a single legal entity within a group would be rated if analyzed exclusively on the basis of its intrinsic merits as a totally independent, free-standing operation. This stand-alone rating is entirely devoid of any influence whatsoever—whether positive or negative—to account for external factors at the wider group level. In some circumstances, the committee may conclude that the entity under review would not be viable outside its group, in which case the entity would be assessed on a status quo basis as opposed to a stand-alone basis.

The status quo rating is a rating committee's confidential assessment of what a single legal entity within a group would be rated incorporating the benefits or problems of being part of the same group, including such things as access to group distribution, involvement of group management, access to group resources (excluding capital contributions), and the benefit or detriment of the group's financial flexibility. A status quo rating would not include any potential capital contribution from the group.

If any strong implicit or explicit group support exists for the group member under review, this will be factored into the existing stand-alone and status-quo analysis to produce a final rating. In generating the final rating, the notching upward, if any, is normally from the status quo rating because in most cases, a divestment of the subsidiary is deemed unlikely. However, if divestment from the parent group were an active analytic concern, the notching upward, if any, would be from the stand-alone rating assessment and not from the status quo rating.

Group status: core, strategically important, or non-strategic? In the third stage of the analysis, Standard & Poor's classifies group members into one of three categories: core, strategically important, or non-strategic. Certain characteristics of each of these categories can be found in many subsidiaries of varied group status, and not all characteristics need be present for a subsidiary to be considered core or strategically important. However, the following factors are indicative of what a rating committee will closely consider when seeking to establish an entity's group status:

Core group companies. Core group companies are those whose existence and operations are considered wholly integral to the group's current identity and future strategy and which Standard & Poor's believes would be supported by the rest of the group under any foreseeable circumstance. Based on analysis of their importance to the entire organization, companies considered core to the group would be assigned the core group ratings that would be applicable either to operating or to holding companies, as appropriate.

Core group companies are defined as those subsidiaries:

- Operating in lines of business integral to Standard & Poor's understanding of the overall group strategy. The activities undertaken or the products sold are very closely aligned to the mainstream business of the company and are often sold to the same target market customers. Nevertheless, the nature of the subsidiary's business should not be substantially more risky than the group's business as a whole.
- Sharing the same name or brand with the main group unless there is a strong business-development incentive to use a different name.
- Separately incorporated—mainly for legal, regulatory, or tax purposes—but de facto operating more as a division or profit center within the overall enterprise, usually exhibiting similar business, customers, and regional focus to other principal operations of the group. Core sub-

sidiaries will often share things like a distribution network and administration with other major operating units.
- To which senior group management has demonstrated a strong commitment—a track record of support in good times as well as bad. Another indication could be to totally integrate the operations of a subsidiary or affiliate so that it is fully integrated into the entire enterprise. In some cases, an insurance subsidiary might be 90%–100% reinsured internally by the group.
- That represent a significant proportion of the parent group's consolidated position, particularly at least a 5%–10% share of consolidated group capital (or capable of reaching this level within three to five years). It is likely also to contribute on a sustainable basis a significant proportion of consolidated group turnover and earnings.
- That are appropriately capitalized commensurate with the rating on the group. Higher-rated entities are expected to be better capitalized, in line with the rating on the group.
- That are reasonably successful at what they do or have realistic medium-term prospects of becoming successful relative both to group management's specific expectations of the subject company and also to the earnings norms achieved elsewhere within the group. Those subsidiaries demonstrating ongoing performance problems or are expected to underperform group management expectations and group earnings norms over the medium to long-term would not be viewed as core.
- Where it is inconceivable that the unit could be sold, such as when administrative, operational, and infrastructure dependence upon the rest of the group make it impossible to sever the entity from the rest of the parent group.
- That are at least 51% voting-controlled by the group.

Strategically important group companies. These are group companies with ratings that are considered supported by external group factors and which in their own right appear almost to satisfy the core characteristics but where the rating committee concludes that there is some doubt concerning unequivocal eligibility for core group status. All group entities designated strategically important (SI) will initially be assessed on both stand-alone and status-quo bases, essentially on their own intrinsic merits. The key characteristics analyzed are the operating performance, market position, and capital adequacy of each strategically important subsidiary. However, based on Standard & Poor's analysis of their importance to the overall organization, the final public rating of strategically important subsidiaries will incorporate some additional credit for the likelihood of ongoing group support. In most instances, Standard & Poor's will assign three notches (one full rating grade) of support to the status quo rating on a strategically important subsidiary.

Standard & Poor's does not believe that an organization's commitment to a strategically important subsidiary is as strong as the commitment to a core subsidiary. Therefore, in general, it will not bring the SI subsidiary rating up to that on the core group members. In other words, the ratings on a strategically important subsidiary, when including implied support, will be at least one notch below the ratings assigned to core group members. However, in some limited circumstances, strategically important subsidiaries to which the group is strongly committed could have the same ratings as those on the core group members. For SI entities to have the same ratings as those on the core members, Standard & Poor's must be confident that there is a particularly strong commitment by the group to these entities. To the extent that these entities demonstrate ongoing performance problems, Standard & Poor's believes management is re-evaluating its commitment to these operations, or they are part of a corporate restructuring, Standard & Poor's will establish a ratings gap between the subsidiary rating and that on the group.

Strategically important subsidiaries are defined as those subsidiaries:
- That share most of the core characteristics identified above, but do not exhibit the necessary size and/or capital adequacy required for core status.
- That are important to the group's long-term strategy but are operated more on a stand-alone, autonomous basis.
- That do not have the same name, nor is it readily apparent that the different name has unique value. (In such instances, the concern must be that the different name is being used as a way to distance the parent company from the subsidiary.)
- That even if not of sufficient size and capitalization to meet core requirements, are nonetheless prudently capitalized for their business risk and within their market environment, with the level

of capitalization at least being assessed by a rating committee as clearly compatible with an investment-grade rating.
- To which group management is committed, and where the subsidiary is not likely to be sold. The rating committee may nonetheless conclude that group commitment might only be valid over a finite period.
- That share the same customer/distribution base and many other characteristics with the core group but where the nature of the business transacted is of a distinctly higher risk profile than is normal elsewhere within the group and may constitute a potentially significant threat to the earnings and/or financial strength of the consolidated group.
- That are reasonably successful at what they do or have realistic medium-term prospects of becoming successful relative both to group management's specific expectations of the subject company and to the earnings norms achieved elsewhere within the group. Those subsidiaries expected to underperform group management expectations and group earnings norms over the medium to long-term would not be viewed as strategically important.
- For which the nature of the incurred risks in practice preclude the subsidiary from ever being sold, although the product line and/or market is not core to the group, such as a major subsidiary with a significant but difficult-to-quantify book of latent or contingent liabilities.

It should be noted that significant acquisitions are normally expected to be viewed as no more than strategically important rather than core, at least in the first year or two of ownership within the group. The sooner a major acquisition is assimilated, the faster it could move from being classified as strategically important to being recognized as a core subsidiary. On the other hand, significant and sustained operating deterioration or earnings underperformance at a previously core unit may result in its reclassification to strategically important or even to non-strategic (see section on next page).

Unless the group has established international status, subsidiaries located in countries or regions different from the de facto country or region of domicile of the parent may be considered strategic but are usually not accepted as core. This is especially true for subsidiaries in emerging markets. In addition, because of the higher risk of investments in emerging markets, even acceptance of strategic importance may still not prove sufficient cause for a rating committee to assign more than one or two notches as an uplift to the basic status quo rating (rather than the standard three notches that are commonly accorded for SI group status elsewhere).

In some infrequent instances, subsidiaries may be considered strategically important to the enterprise despite clearly operating outside of the mainstream business of the company. These companies' products may typically be sold to different customer groups and through different distribution channels than those of the group's principal companies. The management of these operations may not be closely integrated into the group. Nevertheless, Standard & Poor's may judge these operations to be an important part of the group's ongoing strategy if group management has demonstrated a strong commitment to the subsidiary, and the likelihood of the subsidiary being sold is accepted as being very remote. In these rare situations, Standard & Poor's will impute two notches of group support into the final public ratings. It also may be appropriate to impute two notches of support in cases when an acquisition has been recently completed but the committee judges it prudent only to recognize the benefits of integration when and if they happen over time.

On occasion, a rating committee may assign more than three notches of credit to the status quo assessment of a strategically important group company if particular circumstances warrant it. This would occur in cases where the subsidiary is too new to be assessed highly on either a stand-alone or a status quo basis but where the committee judges that there is nonetheless a very substantial commitment by the parent to support this particular operation. In particular, this would include subsidiaries whose stand-alone or status quo ratings suffer because of a lack of economy of scale because of their start-up nature. These subsidiaries would be expected to grow into a higher stand-alone or status quo rating, thus justifying their parental commitment. For example, recently launched subsidiaries with a viable but unproven business plan (such as selling via the Internet or by telephone rather than by traditional methods) could fall into this category. Standard & Poor's would not view mature operations as meeting these circumstances.

It is worth noting that SI status is often considered within Standard & Poor's as being a dynamic state where the subsidiary in question is evolving either toward full core status over time or where its prospective strategic significance to the parent group is perceived as being increasingly questionable. Failure of the group to support any subsidiary that is experiencing financial or operating deterioration would be considered cause for subjecting the supported rating on the subsidiary to severe scrutiny. In addition, putting up for sale or divesting a subsidiary that has support considerations factored into the rating must inevitably trigger a reassessment of the rating. In some cases, it may be appropriate to remove the support from the rating immediately, such as when the subsidiary will be spun off and a committee is able to assess its credit quality on a pro forma basis. In other cases, especially when the regulatory and market framework would likely prevent a severe decline in creditworthiness from being allowed to occur, it may be appropriate to wait before taking any rating action other than placing the rating on CreditWatch.

Non-strategic group companies. Standard & Poor's classifies non-strategic subsidiaries as akin to passive investments of the group. They are not considered strategic, long-term holdings of the group, and the ratings reflect the concern that they may be sold opportunistically in the near or intermediate term. In most instances, these subsidiaries would be rated on a purely stand-alone basis and such ratings would almost invariably be set below the core group rating. If the rating committee were to conclude that for whatever reason sale in the near to medium-term was unlikely, then this belief would be factored into the analysis and an appropriate status quo rating ascertained. If the subsidiary possesses several strategically important characteristics, if it is not obviously a candidate for sale over the short term, and if Standard & Poor's believes the subsidiary would receive parental support were it to experience financial difficulties, then one additional notch of support could be added to the status quo rating.

Nonstrategic subsidiaries are defined as those subsidiaries:

- That do not meet sufficient criteria to be designated core or strategically important.
- That are not prudently capitalized.
- That are start-up companies operating for five years or less.
- That Standard & Poor's believes might be sold in the relatively near or intermediate term or be placed in runoff.
- That are highly unprofitable or marginally profitable and for which there is little likelihood of a turnaround or of additional support from the group.
- That are in ancillary, non-strategic businesses.

Rating Core or Strategically Important Subsidiaries Higher Than the Core Group Rating

There may be rare situations in which a subsidiary is recognized by Standard & Poor's to have operational characteristics in its own right—other than just superior capital adequacy—that cause it to request and clearly merit consideration for a rating above the core group level. Such subsidiaries can be rated at most up to two notches above the applicable core group rating. However, it must be emphasized that to be so rated, the subsidiary must exhibit superior business and operating characteristics relative to the rest of its group and be demonstrably severable and independently sustainable if the parent group for some reason would get into serious difficulties. Moreover, faced with the hypothetical scenario of such severance occurring, the rating committee would need to feel confident that the higher rated entity would be able to maintain its capitalization unimpaired (i.e., its assets would not be liable to seizure by creditors elsewhere in the group) while remaining able to operate effectively outside the former parent group. The superior and sustainable financial profile of the entity relative to its main parent group would be seen as being further protected if there is outside minority ownership of 10%–20% with effective board representation and if its distribution channels are autonomous of the rest of the group. In addition, a clear economic incentive for a sustained higher rating may also prove compelling.

In such situations, Standard & Poor's analytic stance would be to deconsolidate the capital used to fund this higher-rated subsidiary from the analysis of the residual capital available to the rest of the parent group. By considering the resources held at the higher-rated entity to be unavailable to the rest of its group, the standard core group ratings could themselves be lowered. This analytic adjustment may in turn further restrict the initially

determined higher rating on the subsidiary because of application of the rule that the maximum allowable differential between a higher-rated subsidiary and its parent group remains two notches.

Segmented Ratings: Rating Subsidiaries One Category Above the Rating on the Group

A subsidiary may be rated up to one category (three notches) above the group rating assuming its stand-alone business, operating, and capital characteristics can support it and also assuming that the subsidiary can be properly evaluated on a segmented basis. These segmented ratings require a greater degree of protection of the subsidiary's financial strength in the event of financial stress at the group than would exist in the situation outlined in the previous section. As mentioned above, in such situations, the capital necessary to support this higher-rated subsidiary would be deconsolidated from the analysis of the total consolidated capital position, and this could reduce the group rating, which, in turn, could restrict the initially determined higher rating on the subsidiary.

To evaluate group subsidiaries on a segmented basis, the following would be necessary:

- The subsidiary should be severable from the group and able to stand on its own or subcontract certain functions previously provided by the parent.
- Standard & Poor's would have received an opinion by outside counsel that the subsidiary would not be expected to be taken into administration (or equivalent) in the event of insolvency at the parent-company level.
- Standard & Poor's would have received a letter from the parent covering the dividend policy from the subsidiary and the independent integrity of the subsidiary.
- There would exist either an independent trustee with the ability to enforce the protection of the rights of third parties or outside ownership of at least 20% with some independent membership on the board of directors.

In all cases, there should be an economic basis for the parent's commitment to maintain the capital to support the higher rating on the subsidiary.

Evaluating Start-Ups Under Group Methodology

Traditionally, start-ups (operations with a business track record of five years or less) have not been viewed as strategically integral to financial services groups because of their lack of a proven operating history and Standard & Poor's perception that there may be more volatility in their earnings than in existing operations. In view of these issues, Standard & Poor's will not view start-up operations as core to financial services groups. One exception to this policy is the emergence of a growing number of newly established, tax-efficient subsidiaries set up in centers such as Dublin, Bermuda, the Cayman Islands, and the Channel Islands. To the extent that these subsidiaries are set up specifically to serve an important number of existing customers with similar products and services with whom the group has had longstanding relationships, Standard & Poor's can consider such subsidiaries core to the group despite their recent creation. If the subsidiary only serves a small cross section of customers or primarily will get business from a new set of customers, at most Standard & Poor's will consider the entity strategically important to the group.

Standard & Poor's often sees groups setting up new subsidiaries to sell the same products in a different geographic locale or to sell new products to its existing customer base. Start-up entities that sell essentially the same products already being sold by the group but in a different geographic locale may be considered strategically important to the group if they meet most of the criteria for strategically important entities. Likewise, start-up entities that sell new products to an existing core customer base may be considered strategically important to the group if they too meet most of the criteria for strategically important entities. A letter covering the group's strategic intent for the subsidiary received from management may be helpful in this regard.

If Standard & Poor's has been asked to rate a subsidiary and not the entire organization, Standard & Poor's reserves the right to undertake sufficient analysis of the group to determine that subsidiary's potential vulnerability to a weak member of the group, including the parent company. The other group members might not be rated, but their financial and business characteristics will be captured in the analysis that ultimately leads to the single public rating on the given subsidiary.

Maintenance-of-Net-Worth Agreements

Explicit support may be used to raise the rating on both strategically important and non-strategic entities within a group. Accepted forms of explicit support are guarantees and, in some cases, net-

worth-maintenance agreements. A full guarantee that allows timely cash payments can be used to raise the relevant ratings to the level of the guarantor. In addition, strongly worded net-worth-maintenance agreements can be used as a means of explicit support for both strategically important and non-strategic subsidiaries, but usually only in cases where a guarantee is legally not available.

Under Standard & Poor's group ratings methodology described in this text, the rating on a subsidiary that is considered strategically important to the group and that has received an acceptable net-worth-maintenance agreement as explicit support may be raised to one notch below the rating on the entity providing the support. In the case of a non-strategic subsidiary, an acceptably worded net-worth-maintenance agreement will normally allow the rating on the subsidiary to be raised by one rating category but no higher than one notch below the core group rating. A net-worth-maintenance agreement will be accepted only when Standard & Poor's believes that policyholders or other third-party beneficiaries can enforce the agreement.

In some circumstances, Standard & Poor's could choose to assign highly rated, strategically important subsidiaries the same ratings as those on other core group members if they have received a very strongly worded maintenance-of-net-worth agreement from a core group member. For this to happen, Standard & Poor's must be confident that there is a particularly strong commitment by the group to these entities. To the extent that these entities demonstrate performance problems, Standard & Poor's believes management is re-evaluating its commitment to these operations, or they are part of a corporate restructuring, Standard & Poor's will maintain a gap of one notch between the subsidiary rating and that on the group.

Maintenance of tangible net worth. The subsidiary should be prudently capitalized using a multiple of a regulatory solvency margin or regulatory risk-based capital ratio. (In a letter, management should also indicate its intention to maintain the appropriate level of capitalization in line with Standard & Poor's measures of capital adequacy.)

Liquidity. The parent will cause the subsidiary to have sufficient cash for the timely payment of contractual obligations issued by the subsidiary.

Ownership. The parent will own this subsidiary and must be at least a majority owner, though not necessarily 100%.

Successor agreement. The agreement is binding on successors.

Duration. The agreement shall continue indefinitely.

Rights of policyholders. If the parent fails to perform under this agreement, policyholders or other third-party interests have a direct right to enforce this agreement. (Enforceability is strengthened if this document is filed with the insurance regulator or another regulator.)

Modification and termination. Modification or termination can be effected only if such changes do not adversely affect the policyholders' or beneficiaries' interests. Acceptable clauses would include an agreement to support all existing policyholders at the time of termination or an agreement to sell only to an entity with the same rating as the parent. The agreement may be terminated when the subsidiary receives a stand-alone credit rating equal to the supported rating.

The effect on the provider credit rating of the support given under a guarantee or a net-worth-maintenance agreement must be evaluated by Standard & Poor's prior to its assigning the supported rating.

Guarantee Criteria

The term "guarantee" can apply to any form of guarantee, including a parent guarantee, a debt purchase agreement, a surety bond, a letter of credit, or—in certain circumstances—an insurance contract. In transactions utilizing guarantees as a form of credit enhancement, the evaluation of the creditworthiness of the primary obligor is shifted to an evaluation of the creditworthiness of the guarantor and the compliance of the guarantee with certain criteria. The guarantee criteria are intended to ensure that there are no circumstances that would enable the guarantor to be excused from making a payment necessary for paying the holders of the rated securities.

Guarantees that are being relied on by Standard & Poor's should contain the following statements:

1. The guarantee is one of payment and not of collection.

2. The guarantor agrees to pay the guaranteed obligations on the date due and waives demand, notice, marshaling of assets, etc.
3. The guarantor's obligations under the guarantee rank pari passu with its senior unsecured debt obligations.
4. The guarantor's right to terminate the guarantee is restricted.
5. The guaranteed obligations are unconditional—irrespective of value, genuine ness, validity, waiver, release, alteration, amendment, and enforceability of the guaran teed obligations—and the guarantor waives the right of set-off, counterclaim, etc. In connection with lease transactions, the guarantee also should provide that in the event of a rejection of a lease in a bankruptcy proceeding, the guarantor will pay the lease payment, notwithstanding the rejection and as though the rejection had not occurred.
6. The guarantee is reinstated if any guaranteed payment made by the primary obligor is recaptured as a result of the primary obligor's bankruptcy or insolvency.
7. The guarantor waives its right to subrogation until the guaranteed obligations are paid in full.
8. The guarantee is binding on successors of the guarantor, and the trustee is a beneficiary of the guarantee.
9. The holders of the rated securities are explicit third-party beneficiaries of the guarantee.
10. The guarantee cannot be amended or terminated without the consent of 100% of the holders of the rated liabilities and/or securities.
11. The guarantor has subjected itself to jurisdiction and service of process in the jurisdiction in which the guarantee is to be performed.

These 11 concepts are used in reviewing guarantees in U.S. transactions. If the transactions involve entities that are domiciled outside the U.S., tax provisions and currency-exchange provisions should also be considered.

Joint and Several Criteria

When an obligation is fully supported by two entities that are viewed as independent credit risks, it has a lower risk of default—that is, better credit quality—than an obligation solely backed by either entity. This reflects the benefits of its joint support. Previously, Standard & Poor's rated jointly supported debt the same as debt issued by the strongest supporter, commonly called the "strong link." Now, obligations may be rated higher than the "strong link." Ratings that are most likely to be affected are LOC-backed issues where there is clearly little credit correlation between the obligor and financial institutions with broader regional or national business operations. This concept of correlation is described further in the methodology.

Methodology

Probability theory explains that if two companies, each with an independent default risk of 5%, jointly support an obligation, the obligation's risk of default is only 0.25%. The risk that they will both default is much less than the risk that either one will. Proprietary default studies enable Standard & Poor's to quantify the default risk of each rating category. This forms the foundation for this criteria.

The example above assumes that the credit risk of the two supporters is completely independent. In reality, credit quality is often correlated for companies in the same industry and geographic market. Developments that would cause the bankruptcy of one commuter airline in New England likely would create severe financial stress for other regional carriers. Attempting to measure the degree of correlation would be extremely difficult and impractical. Thus, Standard & Poor's criteria employs conservative guidelines regarding correlation of supporters' default risk. The methodology generally assumes that the lower-rated supporter has a 50% default rate, which is equivalent to a 50% correlation of the supporters' actual default risk. Using the above example, the obligation's jointly supported default risk, recognizing the 50% correlation, would be 2.5%, which is still significantly below the risk of default with only one supporter.

Reflecting the high degree of credit risk correlation, there will be no joint support credit enhancement for affiliated companies (parents and subsidiaries), companies in the same industry and narrowly defined region, or other economically codependent entities, such as a county government and overlapping school district.

Investment-grade issuers supported by an investment-grade LOC bank could have this criteria applied if both entities support full and timely payment. Transactions supported by two investment-grade LOC banks could also have this criteria applied.

Ratings of jointly supported obligations will be further constrained as follows:

- Credit enhancement of the stronger supporter will be limited to three notches when the second supporter is rated 'A-' or above, two notches for 'BBB+' and 'BBB', and one notch for 'BBB-';

Jointly Supported Ratings

		AAA	**AA+**	**AA**	**AA-**	**A+**	**A**	**A-**	**BBB+**	**BBB-**
AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
AA+	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
AA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA+	AA+	AA+
AA-	AAA	AAA	AAA	AA+	AA+	AA+	AA+	AA+	AA+	AA
A+	AAA	AAA	AAA	AA+	AA+	AA+	AA+	AA	AA	AA-
A	AAA	AAA	AAA	AA+	AA+	AA	AA	AA-	AA-	A+
A-	AAA	AAA	AAA	AA+	AA+	AA	AA-	A+	A+	A
BBB+	AAA	AAA	AA+	AA+	AA	AA-	A+	A	A	A-
BBB	AAA	AAA	AA+	AA+	AA	AA-	A+	A	A-	BBB+
BBB-	AAA	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB

- No credit enhancement will be allowed if the weaker supporter is speculative grade ('BB+' and below);
- No credit enhancement will be allowed for a third or fourth supporter; and
- No enhancement will be allowed for municipal obligations with debt service payments subject to annual appropriation.

The resulting guidelines for rating jointly supported obligations are shown in the table. The assumed ratings of the two supporters are displayed in the area across the top and down the left column. A bond would be rated 'AAA' if jointly supported by one company rated 'AA' and another rated 'A'. Both companies' ratings, under the new and old criteria, continue to recognize the potential liability for the supported obligation, regardless of its rating.

Short-term ratings may be similarly enhanced for joint support. Guidelines for jointly supported short-term debt derive from the supporters' long-term ratings.

Joint support credit enhancement is not applicable to obligations supported by organizations such as specialized derivative products companies and monoline bond insurers, whose credit ratings already reflect the joint strength concept.

Rating the Issue

Distinguishing Issuers and Issues

Standard & Poor's Financial Institutions Ratings Group assigns two types of credit ratings: one to issuers and the other to specific debt or other financial obligations. The first type is called a Standard & Poor's counterparty credit rating. It is a current opinion of an issuer's overall capacity to pay its financial obligations—that is, its fundamental creditworthiness. This opinion focuses on the issuer's ability and willingness to meet its financial commitments on a timely basis. It does not reflect any priority or preference among obligations. "Default rating" and "issuer credit rating" are additional ways of referring to this type of rating.

Generally, a counterparty credit rating is published for all companies that have issue ratings, in addition to those firms that have no ratable issues, but request an issuer counterparty rating. Where it is germane, both local currency and foreign currency issuer credit ratings are assigned.

Credit ratings are also assigned to specific issues. In fact, the vast majority of credit ratings pertain to specific debt issues. Issue ratings also take into account the recovery prospects associated with the specific debt being rated. Accordingly, junior debt may be rated below the counterparty credit rating, while well-secured debt can be rated above.

Notching: An Overview

The practice of differentiating issues in relation to the issuer's fundamental creditworthiness is known as "notching." Issues are notched up or down from the counterparty credit rating level.

Payment on time, as promised, is critical with respect to all debt issues. The potential for recovery in the event of a default—that is, ultimate recovery, albeit delayed—is also important, but timeliness is the primary consideration; thus, issue ratings are still anchored to the counterparty credit rating. They are notched up or down from the counterparty credit rating in accordance with established guidelines. They take into account the degree of risk/confidence with respect to recovery. The guidelines also reflect, however, a convention for blending the two rating aspects—namely, timeliness and recovery potential.

A key principle is that investment-grade ratings focus more on timeliness, while noninvestment grade ratings give additional weight to recovery. For example, regular subordinated debt is usually rated two notches below a noninvestment grade counterparty credit rating, but one notch below an investment-grade counterparty credit rating. Conversely, a very well-secured bank loan or first mortgage bond will be rated one notch above a counterparty credit rating in the BBB or A rating categories, but the enhancement could be two notches in the case of a 'BB' or 'B' corporate credit rating. In the same vein, for an issuer with an issuer credit rating in the 'AAA' rating category, subordinated debt need not be notched at all, while at the 'CCC' level, the gaps between debt types may widen.

The rationale for this convention is straightforward: as the default risk increases, the concern over what can be recovered takes on greater relevance and, therefore, greater rating significance. Accordingly, the ultimate recovery aspect of ratings is given more weight as one moves down the rating spectrum.

There is also an important distinction between notching up and notching down. When a financial obligation is judged to have materially worse recovery prospects than other debt of that issuer—by virtue of its being unsecured, subordinated, or because of a holding company structure—the issue rating is normally notched down from the counterparty credit rating. Thus, priority in bankruptcy or liquidation is considered in broad, relative terms; there is no full-blown attempt to quantify the potential severity of loss.

In contrast, issue ratings are not enhanced above the counterparty credit rating unless a comprehensive analysis indicates the likelihood of full recovery, defined as 100% of principal, for that specific issue. The degree of confidence of full recovery that results from this more rigorous analysis is reflected in the extent that the issue is notched up. If the analysis concludes that recovery prospects may be less than 100%, the issue is not deemed deserving of rating enhancement, even though it can be valuable indeed to realize, say, 80% or 90% of one's investment and avoid a greater loss.

Preferred Stock Rating Criteria

Preferred stock ratings address the issuer's capacity and willingness to pay dividends and principal, in the case of limited life preferreds, on a timely basis. They address the likelihood of timely payment of dividends, notwithstanding the legal ability to pass on or defer a dividend payment. Accordingly, the long-term rating definitions pertain to preferred stock. In the case of preferred stock that is not currently paying, the rating would be 'D'. If payments are being made but an arrearage remains, the preferred stock would be rated 'C'. If the issuer defaulted on debt or filed for bankruptcy protection, the preferred stock rating would also be lowered to 'D'.

Since preferred stock is by definition a junior ranking security, preferred stock ratings factor in the security's junior position to a company's debt obligations in a reorganization or liquidation. Additionally, the risk of a bank's missing a preferred dividend is distinct from the risk of its missing a debt payment, even when the preferred dividend is relatively small. The role and attitude of regulatory authorities, who view preferred stock as risk capital, pose a real threat that preferred dividends could be stopped even while the financial institution continues to service its debt obligations. Accordingly, bank or bank holding company preferred stock is not rated the same as the entity's counterparty rating, but usually two or three notches below, to reflect the inherently greater payment default risk.

Standard & Poor's Approach to Rating Bank Securities

In understanding Standard & Poor's rating approach as it applies to various kinds of bank securities, some general points should be kept in mind. While for the purposes of consistency, certain broad principles are usually applied in rating securities, rating an issue is less a matter of rule application than of judgment. Accordingly, the rating principles as outlined here have exceptions if individual credit decisions mandate such.

Standard & Poor's rating approach has evolved with global bank regulatory practice, and further regulatory change could lead to further change in rating policy. In general, Standard & Poor's believes that while ratings differentiation among various unsecured and secured securities issued by a bank or bank holding company is frequently appropriate, the fundamental credit of the issuing entity—that is, its capacity to meet its obligations in a timely manner—underlies the ratings of all its unsecured securities. Accordingly, there is a limit upon notching of ratings on a given bank's securities. There are many instances where nuanced interpretation of legal and regulatory policy and practice within various banking systems might suggest the appropriateness of a rating differential being applied to various securities. This could easily lead to stringing ratings out through a wide spectrum, but at the cost of losing sight of the basic credit message.

The following is an overview of current Standard & Poor's practice, which endeavors to make rating distinctions where essential, without losing sight of the primary rating goal of evaluating a bank or bank holding company's credit on a going-concern basis.

Regulation and Industry Risk Assessment

Assigning ratings to bank securities begins with an assessment of the risk of a given banking system. In assessing this risk, Standard & Poor's looks at a variety of factors, including:

- Industry performance;
- Competitive dynamics, such as barriers to entry, market position and pricing pressures;
- Balance sheet composition;
- Leverage; and
- Regulatory environment.

For commercial banking, the regulatory framework has been a critical component in Standard & Poor's assessment of the industry, effectively boosting creditworthiness. Without this regulatory support, the industry's high leverage alone would rank it lower than the current assessment. Moreover, Standard & Poor's believes that commercial banking systems—as key instruments in implementing monetary policy, as well as their vital role in providing business credit—receive consideration in the formulation of monetary policy. On the other hand, where regulatory restrictions inhibit geographic and business diversification, they can cap the creditworthiness of many of the banks rated by Standard & Poor's. Moreover, the regulatory view of different securities and varying treatment of different classes of creditors in the case of bank failure, influence the manner in which Standard & Poor's rates bank securities.

Rating Bank Securities

Standard & Poor's analytical approach to rating bank and bank holding company securities begins with a consolidated financial analysis of the entity and all of its bank and nonbank financial subsidiaries. If nonfinancial companies are owned by the group, a separate analysis of the risks posed by these shareholdings is also required. This building-block approach reviews the individual components of the consolidated entity for financial performance, funding, capital structure, regulatory or contractual limitations on flow of funds, and managerial consistency, with a view to their contribution to the overall strength of the consolidated entity, whether bank or bank holding company. This consolidated analysis

produces an issuer (counterparty) credit rating that is assigned to the parent or lead bank itself and usually to its unsecured senior debt obligations and uninsured certificates of deposit (CDs). In the U.S., the same rating is usually also assigned to all other banks within the holding company structure, but not necessarily to nonbank affiliates. In other systems, the ratings relationships among affiliated banks within the same jurisdiction can vary, but they generally fall within a narrow range. This consolidated approach is justified by both an understanding of sound bank and bank holding company management practices and by an understanding of regulatory intent and practice in most of the systems followed by Standard & Poor's.

Parent banks or bank holding companies are expected to run their bank subsidiaries and nonbank operations in a creditworthy way over time. Thus, while one unit or another in a banking group owned by the same bank or bank holding company may occasionally exhibit a stronger financial profile than an affiliated unit, resources at the lead bank or bank holding company level are expected to be made available to weaker banks within the system, effectively giving the entities a similar credit quality. Conversely, problems at affiliates frequently lead to problems for the parent entity. In cases where banks or bank holding companies own nonbank businesses or units that operate in separate legal jurisdictions, Standard & Poor's still performs a consolidated analysis, but ratings differentials among units can be more likely and greater.

In Standard & Poor's understanding, regulatory philosophy in most banking systems corroborates its rating approach. Moreover, existing regulatory practice in most systems further underscores regulatory intent that parent banks and bank holding companies make their resources available to all their banking units, thus validating a consolidated approach to rating all banks—at least those within the same legal jurisdiction—the same or nearly the same. Again, where regulatory practice differs and to the extent that subsidiary units cannot count on support from the lead entity, ratings differentials would be appropriate. In cases where banks or holding companies operate banking units in foreign legal jurisdictions, it is possible that larger rating distinctions could be made, and in any case differences in the sovereign rating of different jurisdictions would be carried through to the ratings of banks. However, the international cooperation of banking regulators and the increasingly global funding markets strengthen the incentives of the lead entity in a group to support foreign banking subsidiaries. Thus, in most cases, any ratings distinction between domestic and foreign banking units within a group will be minimal, unless there are sovereign-related or other constraints. Obviously, where regulatory practice differs and to the extent Standard & Poor's deems that bank subsidiary units can expect only limited support from the lead entity, ratings differentials could be significantly greater.

Finally, ratings of nonbank financial companies within a banking group are more likely to be significantly differentiated from that of the lead entity's issuer rating unless their own financial condition justifies the higher rating. The size of the ratings distinction would depend on a variety of factors, including regulatory intent.

The bank's counterparty, uninsured CD, letter of credit (LOC) and senior unsecured debt ratings are usually the same when the bank's rating is investment grade ('BBB-' or higher), even in systems where there is depositor preference in liquidation. Investment-grade credits are sufficiently remote from liquidation concerns to warrant not making a ratings distinction based on position of deposits in a liquidation. When a bank's issuer rating is noninvestment grade ('BB+' or lower), however, a distinction between the issuer, senior debt and LOC ratings on the one hand and its CD rating on the other, could be warranted, with the CD rating being notched above the issuer rating. This differentiation would be based on an analysis of likely methods of resolving the bank failure, with consideration given to the bank's size and value of its franchise and whether or not a recapitalization or assumption transaction, as opposed to a liquidation, is the most likely method of resolution. If the analysis indicates that a recapitalization or assumption of all uninsured deposits is the most likely course, some credit will continue to be given in the rating for uninsured deposits. If a liquidation seems to be the more likely course, or a purchase that transfers the insured, but not the uninsured, deposits, the rating assigned would reflect this and would not be higher than the issuer rating. In systems in which it is highly unlikely that deposits would continue to be honored in a timely manner, there would not be a differentiation between the deposit rating and the company rating.

This is likely to be the case in most of the systems followed by Standard & Poor's, since in many of these systems, depositors have either not been shown preferential treatment in the past, or there is not enough of a track record to judge that they would be given preferential treatment in the future.

Senior secured debt, which banks in some countries issue, usually collateralized by mortgage assets, can be rated higher than the bank's counterparty rating, but only if Standard & Poor's has a 100% degree of confidence that the principal will be paid in full subsequent to the bank's failure and after a reasonably short period of payment interruption. The analysis accordingly focuses upon both the legal/regulatory framework of the secured senior debt, as well as a financial assessment of the value of the collateral. Depending on the degree of confidence in 100% recovery, as well as the estimation of the time required before payment of principal is made, the senior secured debt rating could be up to several notches above the issuer's counterparty rating.

Bank subordinated debt is usually rated by Standard & Poor's one notch below the bank's counterparty rating when the counterparty rating is investment grade, and two notches lower when the counterparty rating is noninvestment grade. These differentials reflect the weaker recovery prospects for subordinated debt in a bank failure. Moreover, when subordinated debt has a greater likelihood of payment default than does senior debt—either because of special features in banking law that limit the circumstances under which subordinated debt can be paid or because of covenants in the subordinated debt that establish capital or earnings tests that must be met before payment can be made—ratings differentials would usually be wider. The provisions of U.S. law, for example, that mandatorily cut off debt service on subordinated debt when the bank falls to the critically undercapitalized category underscore the nature of subordinated debt as risk capital and its greater vulnerability to default, even if the bank remains a going, although weak, concern. Similarly, special provisions in perpetual subordinated debt issues of European banks—mandating that the payments on these issues be deferred if the bank breaches certain capital levels, or the appearance of earnings tests that only allow payment to be made if some level of earnings is achieved—underscore the risk capital nature of the instruments. Tier III instruments, likewise, would receive lower ratings, with at least a two-notch differential between their rating and the counterparty rating, and normally a three-notch differential, reflecting the greater vulnerability of these instruments to payment default.

Preferred stock of banks is normally rated two or three notches below the counterparty rating of the bank when the counterparty rating is in investment grade and three or more notches below when the counterparty rating is in noninvestment grade. This is not done solely because of the position of the various instruments in a liquidation, but because of the greater risk of nonpayment on preferred instruments. In other words, it is possible to envisage circumstances where senior and subordinated debt is paid, while preferred is not paying a dividend, especially since in all banking systems, preferred stock is clearly a risk capital instrument. The presence of earnings tests or other restrictive language in preferred issues could lead to additional notching down of their rating should such terms imply a greater likelihood of payment default.

No differentiation is made in the ratings of cumulative and noncumulative preferred stock, since on a going-concern basis, Standard & Poor's would expect with the same degree of confidence that both would be paid.

U.S. Bank Holding Company Securities

The senior debt rating of a U.S. bank holding company is usually the same as its counterparty rating and never higher than the counterparty rating of its banks. It is usually lower by one notch in investment grade and by two notches in noninvestment grade. The rationale for this rating practice is the structural subordination of the holding company to its operating subsidiaries. Moreover, at the point of bank failure, some bank creditors may benefit from certain modes of resolution, like recapitalization and purchase and assumption transactions, that might allow at least some of the bank's liabilities to be serviced in a timely manner, while holding company creditors are not likely to benefit from these resolutions. They, instead, have recourse to bankruptcy courts and to any residual value left at the holding company, which is not likely in most cases to be substantial.

Subordinated debt at the holding company is rated one notch below the counterparty rating in investment grade and usually two notches in non-

investment grade, which is consistent with Standard & Poor's overall rating criteria. In rating bank holding company preferred stock, Standard & Poor's typically assigns a rating two notches below the holding company counterparty rating in investment grade and three notches below in noninvestment grade. While Standard & Poor's has not differentiated the rating between cumulative and noncumulative preferred stock, since on a going-concern basis the issuer would be expected to make timely payment on both instruments with the same degree of probability, other special provisions governing payment of the dividend could result in lower preferred ratings. Heavy dependence on preferred stock in the capital structure has the potential to lead to a wider differential between the preferred rating and the counterparty rating and could even, if it becomes too burdensome, lead to a downgrade in the senior rating itself.

Hybrid Capital Criteria for Banks

This article addresses how Standard & Poor's analyzes the quantity and quality of hybrid capital and, specifically, mandatory convertible securities in the overall framework for ratings on financial institutions. The intention is to help the financial community better understand the reasoning behind ratings. Nonetheless, we emphasize that analytical capital ratios represent only one part of the overall analysis of capital, which in turn can only be analyzed within the broader commercial and financial profile of a rated bank or insurer.

Mandatory convertible hybrid capital securities (hereafter referred to as Mandatory Convertible Securities, or MCS) are a relatively new addition to the expanding group of hybrid capital securities that have equity-like characteristics and are included in regulatory capital by banking and insurance regulators. Standard & Poor's includes hybrid securities, notably preferred shares and long-dated subordinated notes with an interest deferral mechanism, in capital measures within certain limits based on an evaluation of the strengths and limitations of the specific hybrid issue and the broader "quality of capital" analysis of an institution's capital structure. While the position of the regulators with respect to a particular hybrid capital security is an important factor in the analysis, Standard & Poor's view is independent, and can be different, from regulatory classification.

Shorter-dated MCS with three years or less to conversion usually are included up to the maximum limits of hybrid securities in Standard & Poor's adjusted total capital measures for banks and insurance companies; these instruments are often very equity-like. Longer-dated eligible mandatory convertibles are included in total adjusted equity, but usually within a lower sub-limit. Details on the guidelines for eligible MCS are included below. Certain shorter-dated MCS that have features that render them virtually indistinguishable from common equity, notably, accelerated conversion under stress and a coupon that participates in the financial performance of the issuer, may enter Standard & Poor's more narrowly defined measures of common equity, within appropriately prudential limits. To qualify for inclusion in Standard & Poor's tangible common equity measures, these instruments must be seen as equivalent to common equity in the eyes of investors, regulators, and accountants, as well as the issuers themselves.

Ratios are useful, but quality of capital and management intent drive the analysis.
Excessive use of hybrid equity can create risks in the capital structure of banks and insurers. Some hybrid capital instruments with step-up clauses or the potential to dilute excessively existing common shareholders—a characteristic of some mandatory convertible securities—create incentives for management to retire the instrument or repurchase the common shares after conversion. These characteristics cast doubt on the permanency of the 'capital' raised, and lead Standard & Poor's to establish reasonable limits in analytical ratios, or in some cases to exclude altogether an instrument from analytical measures. Underlying the analysis is a fundamental view that a capital structure that relies excessively on hybrid capital is not as strong as one composed of common equity and retained earnings.

Investor expectations with respect to a specific hybrid capital instrument form a key element of the analysis. When investors expect a hybrid security to be permanent and provide a return consistent with common equity, the security will tend to behave like common equity. In contrast, when investors expect returns similar to those of other classes of securities, conflicts may arise that call into question the security's permanency and ability to absorb losses on an ongoing basis. For

example, Standard & Poor's historically has not included auction preferred securities (APS) in analytical capital measures in any sector, be it insurance, banking, or corporate. Investors in APS seek a short-term money market return and generally are not willing to provide long-term loss-absorbing capital. If the investors judge the return as insufficient with respect to the issuer risk profile they may reject the instrument and cause the auction to fail, thereby creating an incentive for the issuer to repurchase the APS, even though the issuer has no formal obligation to do so. This is indeed what happened in the late 1980s.

Qualitative analysis of capital is fundamental to the global assessment of the creditworthiness of banks and insurers. It must be viewed in the context of the strength and stability of earnings, asset risk profile, policyholder liabilities, and risk management. Specific components in the qualitative analysis of capital include:

- Strategic capital management;
- Financial flexibility evident in unrealized capital gains, hidden reserves, access to capital and liquidity from third parties;
- Nature and extent of minority interests;
- Dividend policy and potential for earnings retention;
- Management strategy with respect to acquisitions, disposals, and investments; and
- For insurers particularly, financial leverage, interest and fixed charge cover, the use of reinsurance to mitigate peak exposures, and reserving policy for long-tail and other technical liabilities.

While the global trend towards convergence of the banking and insurance industries continues, structural, operational, and regulatory differences between the two industries remain. For example, measures of debt-service capacity are relevant for large insurance groups but have little meaning for banking groups, which by nature are highly leveraged and whose assets are almost entirely funded with debt. The regulation of banks historically has been more extensive than insurance regulation, due to the fundamental role that banks play in managing the money supply and protecting and allocating national savings. Maintaining confidence in banks is a key policy area for all governments, as any loss of confidence can cause a short-term liquidity crisis owing to the very high leverage in the banking sector. This "run-on-the-bank" scenario is less likely for insurers. Banking groups tend to be regulated on a consolidated basis, while insurance regulation traditionally has been more specific to the business line and operational entity within a given jurisdiction, although there is a current move by European Union insurance supervisors towards regulating insurance groups on a more consolidated basis. Meanwhile, reinsurers are totally unregulated in most markets. Given the key role of some insurers in managing long-term savings through life insurance and pensions, Standard & Poor's anticipates that insurance regulation increasingly will resemble banking regulation in many jurisdictions.

Standard & Poor's applies compatible methodology when assessing the capital strength of banks and insurers, while recognizing the different nature of business risk and regulation in the two industries. The capital analysis of banking groups focuses on common equity and retained earnings, along with loan reserves and hybrid securities that can be expected to absorb losses in times of difficulties. Meanwhile, the capital analysis of insurance companies focuses more on broad capitalization inclusive of eligible hybrid capital. For insurers, the ability to pay cash claims derives from several sources: technical reserves, the liquidation of investment assets at prevailing market values, transfers from general and capital reserves, the use of reinsurance, and the potential realization of the present value of future profits on the current "in-force" book of life business.

Banking institutions issue hybrid capital securities first and foremost to build regulatory capital. While Standard & Poor's excludes some regulatory capital instruments, such as "plain vanilla" dated subordinated debt, from its measures of bank capital, qualification as regulatory capital by national bank regulators is a mandatory requirement for Standard & Poor's to include a hybrid security in its total capital measures. Banks often operate close to regulatory capital minimums. Banking regulators usually have (and use) broad powers to direct the activities of banks that fall below minimum capital ratios, and increasingly have powers over the behavior of hybrid capital instruments as well. If the bank regulator excludes an instrument from regulatory capital, the instrument provides no cushion between minimum capital and regulatory action.

In contrast to banks, insurance companies traditionally have maintained capital in excess of regu-

latory requirements. Insurance groups issue hybrid capital securities to manage economic capital and satisfy constituents other than regulators (including rating agencies like Standard & Poor's). Thus the regulatory intent and acceptance of hybrid capital in the insurance sector has been less of factor in the analysis of these instruments when issued by insurance concerns. When insurance regulators have expressed no view on a specific hybrid capital instrument issued by an insurance group, Standard & Poor's establishes its own prudent stance on likely regulatory policy with respect to the instrument.

Standard & Poor's uses both core and total capital measures when assessing the overall capital strength of a bank or insurance company. The analysis of an institution that has a high percentage of strong hybrids, such as short-dated MCS, in its capital structure is oriented more towards total capital measures. In contrast, when hybrid securities are of lesser resilience—for example, dated subordinated debt with an interest deferral mechanism—the analysis concentrates primarily on core capital measures. We repeat and emphasize the point that formulaic ratio-driven analysis represents only a part of the overall quantitative and qualitative assessment of capital.

Core equity (i.e. tangible common equity) remains a key analytical measure in the analysis of banks and insurance companies. A financial measure that includes common equity, retained earnings and general, after-tax reserves, and that backs out goodwill, asset revaluation reserves and equity in non-consolidated subsidiaries reflects the core capital strength of an institution. The growth trend in core capital reflects the capacity of an institution to access capital from investors/owners and to accumulate retained earnings. Hybrid securities

Definitions of Capital Ratios

Adjusted Common Equity (ACE). Used in both financial institution and insurance company analysis, ACE reflects a narrow definition of core capital and only (rarely) includes as hybrids shorter-dated mandatory convertible securities that are indistinguishable from common equity in behavior and market perception. ACE includes common equity, share reserves, retained earnings, minority interests, and, where appropriate, asset revaluation reserves on insurance investments. ACE excludes intangible assets, other asset revaluation reserves and equity held in unconsolidated subsidiaries.

Adjusted Total Equity (ATE). This broad measure of the capital of financial institutions includes common equity, share reserves, retained earnings, minority interests, and eligible hybrid capital issues. ATE excludes intangible assets, asset revaluation reserves and equity held in unconsolidated subsidiaries. The maximum amount of all forms of hybrid capital securities in ATE is 35% of the total. Eligible Mandatory Convertible Securities (MCS) with three years or less remaining to conversion are very equity-like, and qualify up to the 35% limit. Noncumulative preference shares, the most usual form of qualifying hybrid capital, are included up to 25% of ATE. Lastly, within ATE exists a sub-limit of 10% of the total for relatively less equity-like forms of hybrid capital: dated hybrid capital issues, and perpetual subordinated debt with limited capacity to defer interest. A hybrid capital issue must be included in regulatory capital by the relevant bank regulatory for Standard & Poor's to include it in ATE.

Total Adjusted Capital (TAC). TAC, Standard & Poor's broadest measure of the capital of insurance companies, is the total economic capital of the company calculated at market values. It includes equity-like reserves and a percentage of realizable intangibles. TAC includes eligible hybrid equity up to a maximum of 25% of the total. Within TAC exists a sub-limit of 15% for the following forms of hybrid capital: dated and undated subordinated hybrid capital issues with capacity to defer interest, and preference shares. The additional 10% that brings the limit for eligible hybrid equity in TAC to 25% can only be composed of eligible MCS. To date, the only forms of hybrid equity included in TAC above the 15% sub-limit are shorter-dated (three years or less) MCS.

With respect to insurance holding companies, total hybrid equity (excluding eligible MCS) exceeding 15% of total capital raises concerns about company leverage. Standard & Poor's views the incremental hybrid capital issuance over 15% of TAC as more debt-like than equity-like, and reflects this view as appropriate in leverage analysis.

usually have features, such as tax deductibility of the coupon, that make them less expensive or otherwise more attractive to the issuer than issuing new common shares. Moreover, the issuer usually seeks to improve capital adequacy without diluting common shareholders. Otherwise, an institution would simply issue new common shares. For example, while capital raised by perpetual preferred shares is permanent, it comes at a fixed price and is aimed more at long-term fixed-income investors.

The key factor in the assessment of a MCS as capital is the absence of the legal right or strategic intent of the issuer to retire the MCS with anything but new common equity. In addition, the securities must contain a mechanism that will make it highly unlikely that management would buy back in the open market either the convertible securities or the post-conversion new equity in order to support the prevailing share price.

A case-by-case approach is required to analyze the "capital credit" accorded to MCS, given the widely varying terms and conditions of each instrument, and the specific differences of intent among issuers. The latter is discerned through discussion of financial strategy with senior executives of the issuing group. Standard & Poor's typically includes MCS it in its broadest measure of capital: Adjusted Total Equity for financial institutions and Total Adjusted Capital for insurance companies. *(See sidebar 1 for definitions of capital measures.)*

Nevertheless, certain shorter-dated MCS that have features that render then indistinguishable from common equity—notably, accelerated conversion under stress and a coupon that participates in the financial performance of the issuer—may enter Standard & Poor's more narrowly defined measures of common equity, within appropriately prudential limits. To qualify for inclusion in tangible common equity measures, these instruments must be seen as equivalent to common equity in the eyes of investors, issuers, regulators, and accountants. The volume of MCS that analytically qualify for inclusion in Standard & Poor's adjusted common equity measures is likely to be very limited in practice, due to the strict guidelines for inclusion.

Recent issues and proposals of debt securities that convert to equity are increasingly innovative and, at times, complex. Standard & Poor's roughly classifies MCS into two groups: shorter-dated issues that convert within three years and longer-dated issues that convert over a longer time frame. Many shorter-dated MCS have strong equity-like characteristics. Standard & Poor's typically includes them up to its highest tolerance limits for hybrid equity instruments in the total capital ratios of banking and insurance groups if they meet the following guidelines:

- Within three years of issue, the securities convert on a mandatory basis into new common equity of the issuer. There must be no option for the securities to be retired with cash at any time or under any circumstances during the life of the securities, unless that cash is itself the direct product of a new equity issue by the issuer.
- The issuer is highly rated (in general, a 'A-' or higher counterparty credit rating), or the securities have an acceptable, credit-related trigger that accelerates conversion before the mandatory conversion date. Note that the existence of a mechanism that triggers deferral of coupon under stress or a nominal coupon renders a MCS even more equity-like.
- The securities have a robust mechanism that ensures that conversion will not excessively dilute the issuer's share price. This mechanism should reduce to a minimum the potential buy-back of newly issued shares resulting from conversion.

MCS with a longer period to conversion (over three years) often have many equity-like characteristics. Standard & Poor's includes them in the total capital ratios of banking and insurance groups, usually within a sub-limit that includes noncumulative perpetual preferred shares and other hybrids, if they meet the following guidelines:

- At maturity, the securities convert on a mandatory basis into new common equity of the issuer. There must be no option for the securities to be retired with cash at any time or under any circumstances during the life of the securities, unless that cash is itself the direct product of a new equity issue by the issuer.
- The securities have an acceptable, credit-related trigger that accelerates conversion before the mandatory conversion date, or the securities contain a clause that enables the issuer to eliminate or defer cash interest payments to absorb losses on an ongoing basis.
- The securities are subordinated to all other debt of the issuer.
- The securities have a robust mechanism that ensures that conversion will not excessively dilute the issuer's share price. This mechanism should

reduce to a minimum the potential buy-back of newly issued shares resulting from conversion.

The closer an MCS is to mandatory conversion, the more equity-like it becomes. During the last three years before mandatory conversion, Standard & Poor's considers an eligible MCS as shorter-dated and includes it up to the highest tolerance limits for hybrid equity instruments.

Rating Hybrid Capital Securities

Standard & Poor's rates hybrid capital instruments, including preference shares, the same way that it rates all specific debt issues. That is to say that the rating reflects the capacity and willingness of the issuer to honor the specific terms of the financial instrument, including coupon payments that can be deferred under certain defined circumstances. Even when the elimination or deferral of a coupon payment does not constitute a default under the terms of an issue, Standard & Poor's considers these events a failure to pay, and would move a specific issue rating to 'D' in such cases. The potential for a payment failure (including allowed eliminations or deferrals) is reflected in the rating of the instrument. Note that the payment of the coupon in kind (i.e. stock settlement) is not a payment failure, provided that this option is clearly defined in the original prospectus of the security. Lastly, the rating of a hybrid capital instrument also reflects subordination of the instrument in liquidation.

With respect to MCS, the convertible security is rated the same as the underlying fixed-income instrument until the time of conversion. As appropriate, the issue rating will reflect the degree of subordination and the risk of payment failure inherent in the capacity of the instrument to suspend interest payment under certain circumstances. Clearly, after the issue converts, the rating no longer applies, because the rated instrument ceases to exist.

The starting point for the rating of a specific MCS is the Counterparty Credit Rating (CCR) of the issuer. The probability that the security holders will receive cash interest on time depends first and foremost on the issuer's inherent credit standing, reflected in its CCR. Nonetheless, the rating of many mandatory convertible issues will be below the CCR of the issuer, reflecting higher payment failure risk, subordination to senior debt in liquidation, subordination to policyholder obligations in liquidation, or a combination of these elements.

Standard & Poor's policy is to rate the subordinated debt of a financial services issuer one or more notches lower than the most senior obligations of the issuer, whether they are debt or policyholder obligations. The notching is usually one for investment-grade issuers, and two or more for speculative-grade issuers.

The risk of suspended or eliminated coupon payments that arises from specific interest deferral clauses adds at least one "notch" of supplementary credit risk to an issue. The degree of supplementary payment failure risk depends on several factors surrounding the interest deferral clause and the financial situation of the issuer, notably how close the issuer is to the trigger and if the deferral is optional or mandatory. Typical triggers include the elimination of common stock dividends, failure to meet regulatory or contractual capital requirements, and declaring an operating loss. The final rating on the specific hybrid capital instrument reflects both subordination and the risk of failed coupon payments, as appropriate.

Senior MCS with no interest deferral clauses are usually rated the same as senior debt of the issuer. Mandatory conversion into common equity is not, in itself, a rating factor.

Summary Guidelines for Including Hybrid Capital in Total Capital Ratios of Banks and Insurers

Banks and bank holding companies: Adjusted Total Equity (ATE) Ratio.

- Up to 10% of total: dated junior subordinated debt with interest deferral mechanism; perpetual junior subordinated debt with limited capacity to defer interest.
- Up to 25%: noncumulative preferred shares; qualifying longer-dated MCS.
- Up to 35%: qualifying shorter-dated MCS.

Insurance companies: Total Adjusted Capital (TAC) Ratio.

- Up to 15% of total: long-term preferred shares; long-term junior subordinated debt; MCS with more than three years to conversion.
- Up to 25%: qualifying shorter-dated MCS.

Commercial Paper I: Banks

Commercial paper is a money market instrument in the form of an unsecured promissory note issued by corporations and financial institutions to raise short-term funds. In the U.S., the tenor of commercial paper extends from overnight to a maximum of 270 days.

Rating Criteria and Correlations

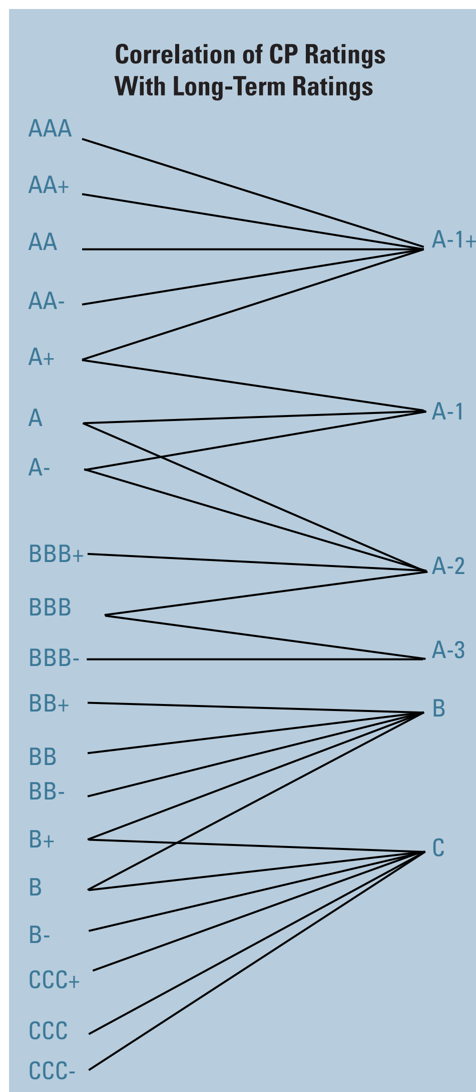
The analytical approach to rating commercial paper and other short-term debt is the same as the one followed in assigning a bond rating. There is a strong link between short- and long-term rating systems. The correlation of commercial paper ratings and bond ratings is depicted in the following table:

In effect, the minimum credit quality associated with the 'A-1+' commercial paper rating is the equivalent of an 'A+' bond rating. Similarly, for commercial paper to be rated 'A-1', the bond rating would need to be at least 'A-'. In actuality, the 'A-/A-1' and the 'A+/A-1+' combinations are infrequent. In almost all cases, 'A+' rated bonds are correlated with 'A-1' rated commercial paper and 'A-' rated bonds are correlated with 'A-2' rated commercial paper. Conversely, knowing the bond rating will not determine the commercial paper rating, considering the overlap of rating categories. Nevertheless, the range of possibilities is narrow.

First and foremost, Standard & Poor's considers an issuer's overall liquidity and funding profile to make the determination. To the extent that a financial institution exhibits strong liquidity beyond what has already been incorporated in the long-term bond rating, a higher commercial paper rating may be warranted. Conversely, if the financial institution exhibits poor liquidity for its rating category, it would receive the lower commercial paper rating. Standard & Poor's reviews bank lines as one element of overall liquidity management of a bank.

Bank Holding Company Commercial Paper Backup Requirements

With respect to bank holding companies (BHCs), cash flow projections and appropriate use of commercial paper proceeds are key to fundamental analysis of parent company liquidity. BHCs, by their nature, are often conduits of cash flows between investors and the underlying operating subsidiaries. Internal



sources (i.e., liquid assets) most often provide the primary of support for commercial paper issued by financial institutions.

In addition to commercial paper, BHCs may tap other funding sources, such as medium-term note (MTN) programs with maturities as short as seven days. To the extent that alternative funding sources are short term and highly credit sensitive, these short-term borrowings represent competing claims, along with commercial paper, for parent company resources. For this reason, BHCs need to maintain sufficient backup, in the form of liquid assets and/or bank lines, for commercial paper and its substitutes. Such substitutes would include, but would not be limited to, master note programs, sweep accounts, and other unsecured borrowings with an original maturity of less than one year.

Parent Company Liquidity

The proceeds of BHC-issued commercial paper are often downstreamed to the bank subsidiary on a matched basis. Such borrowings help to diversify the organization's funding sources and, at the same time, offer the parent company a very high degree of liquidity. When used for this purpose, commercial paper borrowings have not needed additional support from external bank lines. Standard & Poor's recognizes that similar treatment can be applied to proceeds invested in high-quality money market instruments. For example, Treasury bills and deposit placements with unaffiliated commercial banks offer a predictable degree of safety and liquidity, provided that any maturity mismatch is within reason.

Commercial paper proceeds advanced to nonbank subsidiaries, even on a matched basis, would likely require external bank line support because the underlying operations do not have the same degree of official protection (i.e., deposit insurance) and financial flexibility (i.e., easy access to the Central Bank discount window) as a commercial bank. In addition, nonbank subsidiaries often engage in such activities as leasing, commercial finance, and consumer finance, where the underlying assets are longer term and carry a degree of credit risk. Standard & Poor's views proceeds invested in high-yield bonds, equity securities, venture capital units, or workout subsidiaries as risky uses of commercial paper financing that would clearly require external bank-line support.

Backup Coverage

Standard & Poor's expects that BHCs rated 'A-2' or lower maintain 100% backup coverage for all short-term, credit-sensitive borrowings (i.e., commercial paper and its substitutes) that are not downstreamed on a matched basis to bank subsidiaries. In these cases backup coverage may be in the form of highly liquid assets (i.e., CDs arbitraged in bank subsidiaries and similar high-quality money market instruments) or credit lines with unaffiliated banks. BHCs rated 'A-1' should have 50% backup coverage, while those rated 'A-1+' should have 25% backup coverage. These recommendations are guidelines and not mandatory requirements; more or less coverage may be needed as circumstances warrant. Because the quantity and quality of bank lines are integral elements of parent company liquidity, the failure to maintain a sufficient amount of coverage could have negative implications for both short- and long-term ratings.

These guidelines differ from those of industrial issuers because Standard & Poor's recognizes the additional financing options uniquely available to BHCs. First, parent companies can borrow from affiliate banks within specified limits and collateral requirements. Second, BHCs can also transfer the assets of nonbank subsidiaries, again under certain conditions, to the bank affiliates where funding options remain more plentiful.

Tiering of Bank Lines

Standard & Poor's recognizes that bank lines are not alike, and the strength of such lines plays an integral part in parent company liquidity. In general, a revolving credit agreement, because it is a contractual obligation, provides more secure backup than does a committed line of credit. If relying solely on external arrangements for commercial paper support, BHCs rated 'A-2' or lower should have at least 15 days' worth of maturities (which typically translates into one-half of average commercial paper outstanding) in the form of a revolver, while those rated 'A-1' should have 10 days' worth of maturities (one-third of outstandings). The balance should be in the form of committed lines of credit. Open bank lines where no compensation is remitted (either in fees or deposit balances) or based solely on verbal agreement are not acceptable backup.

As a matter of application, the tiering requirements may be impractical for BHCs where the dol-

lar amount of external support is small. Again, this is a function of the BHC structure, as the bulk of commercial paper support usually comes from internal sources.

In addition to the absolute amount and tiering of backup lines, Standard & Poor's considers other qualitative factors pertaining to the banks providing such facilities. For example, a multiyear facility provided by a diversity of highly rated banks would likely prove more reliable than an annual facility from a small group of lower-rated banks. In addition, the committed amounts should not impair the capital adequacy of the bank(s) extending credit. The longevity and closeness of mutual business ties (e.g., correspondent banking relationships) between the issuing BHC and the credit-providing bank can enhance the quality of the line facility. The stronger the relationship, the more likely the line can be drawn upon, not only during periodic testing (which is certainly advisable), but also more important, during times of need.

Bank Issuance of Commercial Paper

If a bank, as opposed to a bank holding company, issues commercial paper, no special backups are required. Banks, as the operating entity within the consolidated organization, have varying amounts of liquid assets on their balance sheets and access to a diversity of funding sources. Liquid temporary investments are the primary source of liquidity for banks and are viewed by Standard & Poor's as more important than any off-balance-sheet funding commitment. Temporary investments include short-term deposit placements with unaffiliated banks, Fed funds sold and resale agreements, trading account assets, and government securities that mature in one year or less. Other investment securities could be considered if there is a well-established and liquid market into which they can be sold.

Banks' primary funding sources are local demand and savings deposits. Beyond these core deposits, banks may also have access to a variety of wholesale funds, such as jumbo CDs, foreign and interbank deposits, and bank notes. Furthermore, banks, depending on the regulatory regime, may have access to central bank liquidity.

Swing Lines

In certain countries, notably the U.S. and Australia, commercial paper markets require same-day settlement. In these markets, Standard & Poor's looks for offshore bank issuers that do not have a local branch or agency to have in place a swing line or another secure source of liquidity to cover 15% of the projected maximum outstanding amount of borrowings. The 15% requirement approximates three days' worth of maturing commercial paper. Importantly, the swing lines must provide for same-day availability of funds so that the issuer can cover maturing commercial paper in the case of market disruption. The swing lines should be in the issuer's name, even if the commercial paper is guaranteed by an offshore entity. The lines should be from highly rated banks domiciled in the market where the commercial paper is issued and denominated in the local currency. Lines in a different currency may be accepted if Standard & Poor's believes foreign exchange swaps are readily available. In some cases, a portfolio of liquid securities may be used as a substitute for the swing lines, provided that the securities are unencumbered, always available, and have a proven value in the secondary market. In some cases, the swing line requirements can be increased for banks with short-term ratings of 'A-2' or lower.

Commercial Paper II: Finance Companies

The level of backup facilities recommended here for finance companies varies from that of other industries due to different financing patterns and access to financial markets. In addition, balance sheet liquidity is an important consideration in determining not only an issuer's rating, but also a suitable level of backup. As a minimum guideline, Standard & Poor's recommends that finance companies rated 'A-1+' should have 50% bank-line coverage of the portion of short-term borrowings not already covered by liquid assets (excluding short-term assets held by insurance subsidiaries), while those rated 'A-1' should have 75% coverage. For issuers rated 'A-2' and below, 100% coverage is recommended.

A critical element in backup coverage is the quality and availability of credit facilities. Standard & Poor's expects that backup facilities will consist of committed credit facilities provided by a diversified source of investment-grade banks. Additionally, revolving credits with same-day drawdown availability, which usually represents the strongest commitment a bank can make, should be sufficient to provide for the next 10 days' maturity of short-term debt for 'A-1' issuers and 15 days' maturity for lower-rated issuers. The balance should be in the form of committed bank lines. Stronger backup may be required in some cases to provide additional protection due to reduced market confidence in the issuer.

Given a material overlap among providers of backup facilities, the protection afforded by backup coverage should not be relied upon with a high degree of confidence in the event of widespread industry disruption in the market. Along these lines, Standard & Poor's recommends that backup be provided from a well-diversified group of investment-grade banks, with an emphasis on multiyear agreements versus annually renewable commitments.

Backup Coverage Considerations

Finance companies exhibit many of the same characteristics that make banks unique and that allow for less coverage than industrial issuers. In general, bank and finance company assets are more liquid than assets of industrial companies and potentially self-funding, if the need arises, through securitization or other forms of secured debt. Banks, however, have additional advantages from their ability to tap the Federal Reserve window, coupled with their deposit-gathering network, which supplies a steady source of insurance-supported deposits. Each are considered as viable alternatives to commercial paper.

On the other hand, finance companies are less encumbered by regulatory constraints than banks in their ability to transfer liquid assets between legal entities during times of need. Cash flow is a further advantage to finance companies and banks over industrial issuers, given the nature of the underlying financial assets versus plant and equipment.

Contingency Planning

Given the importance of a steady source of short-term debt in the funding mix, Standard & Poor's, in the determination and surveillance of a rating, periodically reviews an issuer's alternative funding plans in the event of a liquidity crisis. In conjunction with committed backup facilities in place, finance company issuers have, over the past several years, developed detailed contingency plans to accommodate an orderly withdrawal from the commercial paper market if required.

Well-Secured Debt: Notching Up

Standard & Poor's has an analytical framework for weighting both timeliness and recovery prospects in assigning ratings to well-secured debt. The extent of any enhancement depends on the following three considerations:

Economics

Will the "second way out" provide 100% recovery? of principal only? of interest, too? (If all accrued interest, before and after default, can be recovered, the length of any delay is less consequential.)

Importantly, there can be different degrees of confidence with respect to recovery. For example, excess collateral translates into greater likelihood that there will be enough value to recover the entire obligation—although, obviously, the creditor will never get more than the obligation amount. Subjective judgments are critical in deciding how to stress collateral values in hypothetical post-default scenarios.

How Long a Delay?

The time it takes to realize the ultimate recovery is critical. In the best case, the recovery is highly valued due to its nearly timely character—almost like a grace period. In the worst case, Standard & Poor's would not give any credit for a very delayed payment. In estimating the length of delay, the analysis would focus on:

Ultimate Recovery Rating Criteria Framework

Issuer Credit Rating Level: BB, B	Within 18-24 months	Within 6 months	Within 30-60 days
Reasonable confidence of full recovery of principal	+1 notch (eg., U.S. corporate loan with over 1x collateral cover, after stress)	+1 or 2 notches	+2 or 3 notches (eg., equipment trust certificates, Section 1110)
Highly confident of full recovery of principal	+2 notches (eg., U.S. corporate loan with over 1.25x collateral cover)	+2 or 3 notches	+3 or 4 notches (eg., Section 1110 debt, 50%-65% loan-to-value)
Highly confident of recovering principal and interest	+3 notches (eg., U.S. corporate loan with over 1.65x collateral cover)	-2 or 3 notches from guarantor (eg., government guarantee)	-1 or 2 notches from guarantor (eg., ExIm Bank)

Issuer Credit Rating Level: A, BBB	Within 18-24 months	Within 6 months	Within 30-60 days
Reasonable confidence of full recovery of principal	+1 notch (eg., U.S. corporate loan withover 1x collateral, cover after stress)	+1 notch	+1 notch (eg., equipment trust certificates, Section 1110)
Highly confident of full recovery of principal	+1 notch (eg., U.S. corporate loan with over 1.25x collateral cover)	+2 notches	+2 notches (eg., Section 1110 debt, 50%-65% loan-to-value)
Highly confident of recovering principal and interest	+2 notches (eg., U.S. corporate loan with over 1.65x collateral cover)	-2 or 3 notches from guarantor (eg., government guarantee)	-1 or 2 notches from guarantor (eg., ExIm Bank)

- How the legal system resolves bankruptcies or provides access to collateral. This varies by legal jurisdiction. In the U.S., 18-24 months is the typical time needed to resolve a Chapter 11 filing. (The analysis would identify and differentiate cases that might take longer than usual because of perceived complexities, such as litigation.) In Western European countries, which are generally more creditor-oriented, the access to collateral may be expedited.
- The structure of an obligation. The analysis could distinguish between a bond, a lease obligation, and certificates governed by Section 1110 of the U.S. Bankruptcy Code—which provides specific legal rights to obtain certain transportation assets during a bankruptcy proceeding.
- The terms of an obligation. In the case of a guarantee that provided for ultimate—but not necessarily timely—payment, for example, it would be important to know within what period payment must be made.

Weighting

The higher the rating, the more one should give weight to timeliness; the lower the rating, the more it should incorporate a postdefault perspective. (This principle is the basis for the policy of rating junior debt of investment-grade issuers one notch below the issuer rating, but differentiating junior debt of speculative-grade borrowers by two notches.) Therefore, the degree of enhancement generally depends on the starting point—the level of the issuer credit rating.

In those exceptional cases of high confidence in quick payment—such as ultimate guarantees by governments—a different approach is used: notching down from the guarantor. (Enhancement should not result in a rating that would equal the rating with full timeliness. For example, in the case of a 'BB' issuer and an ultimate guarantee from an 'AA' guarantor, the result might be anywhere between 'BB+' and 'AA-,' but definitely is capped below the 'AA' that would apply if the guarantee were to include full timeliness—either explicitly or as an analytical conclusion).

The matrices on the preceding page place the above-mentioned factors into a systematic framework.

With respect to short-term ratings, the importance of timeliness is paramount. Accordingly, there is no enhancement of short-term ratings based on ultimate recovery.

To reiterate, the policy of enhancing issue ratings based on ultimate recovery prospects does not apply unless the expected recovery is 100%. Standard & Poor's does not attempt to differentiate run-of-the-mill unsecured debt of different issuers—although we know that some defaults will result in recovery of 80 cents on the dollar, and others will result in 30 cents.

Rating Secured Lines of Credit to Financial Institutions

The rating criteria used to assign ratings to secured lines of credit granted to financial institutions can have broad application to a variety of secured issuances by a wide range of issuers. To date, the secured lines of credit that have been reviewed have mostly been revolving facilities extended to specialty finance companies, such as subprime mortgage lenders and real estate investment trusts.

Specifically, the facilities rated have been warehouse lines used to fund mortgages or other related financial assets, with the loans funded by the facility serving as collateral. In most cases, proceeds arising from securitization or sale of the loans are then used to repay the advances from the facility. In many cases, a portion of the facility can also be drawn upon to fund longer-term portfolio investments of the borrower.

Relationship to Counterparty Ratings

Ratings on secured lines of credit begin with the counterparty credit rating of the creditor. While a counterparty credit rating addresses the risk of full and timely payment on all obligations of that entity, a rating for a secured line of credit also incorporates an analysis of ultimate recovery based on collateral protection. Consequently, a rating on a secured line of credit can be higher than the counterparty credit rating. The incorporation of ultimate recovery consideration is not new in Standard & Poor's analysis, as reflected by the convention of rating subordinated debt below senior debt, given the former's weaker standing in postbankruptcy liquidation. The logic of ultimate recovery analysis has been extended to permit the enhancement of a rating through the offering of security.

Key Rating Factors

A rating above the counterparty credit rating would be given only if Standard & Poor's were to conclude that full recovery—100% or virtually 100% of principal—can be anticipated, albeit delayed in the event of default. The degree to which a secured rating can be placed above the counterparty rating depends on four considerations:

- Counterparty credit rating;
- Value of the collateral;
- Length of the delay in recovering and liquidating collateral; and
- Advance rate against the collateral's value.

Counterparty credit rating. The higher the counterparty credit rating, the more weight given to timeliness in determining a rating for a secured line of credit. Conversely, the lower the rating, the more it incorporates a postdefault perspective. By way of analogy, the same principle is used in rating subordinated debt of investment-grade issuers one notch below the senior unsecured rating, though differentiating subordinated debt of speculative-grade borrowers by two notches. Since an enhanced position in a liquidation scenario is being considered, the adjustment above the counterparty credit rating would widen in the speculative-rating category.

Value of the collateral. The collateral securing a line of credit made to a financial institution is represented in the main by financial assets. Examples of the type of financial assets offered as security in the facilities Standard & Poor's has been asked to rate include:

- First lien home mortgages;
- Second lien home mortgages (home equity loans);
- Manufactured housing loans;
- Manufactured housing dealer inventory loans;
- Commercial mortgages;
- Home construction loans;
- Commercial construction loans;
- Bond call loans;
- Warehouse lines; and
- Excess servicing receivables.

As this list illustrates, the majority of financial assets offered as security are themselves secured loans. Standard & Poor's assessment of the quality of these loans as security is determined by credit risk considerations and by market risk considerations.

In most instances, the underwriting of the securing loans is standardized, facilitating the analysis of their credit quality. Standard & Poor's would, for example, be able to form an opinion of the credit quality of a class of loans by examining the qualifying criteria for a borrower as measured by credit scores or credit history. The purpose for which the loan was extended also would be considered in assessing the degree of credit risk. For example, a home mortgage loan made for the purchase of a home and underwritten to conform to the guidelines of Fannie Mae or Freddie Mac would be of higher credit quality than a home mortgage loan extended to a borrower for purposes of debt consolidation and underwritten with debt servicing ratios below Fannie Mae or Freddie Mac standards.

Standard & Poor's also considers market risk in its analysis. The two types of risk can be related, as the market or sales value of a loan could, as suggested above, be impaired by a perception that it is of poor credit quality. However, market risk is primarily a function of interest rates and is most relevant when rating fixed-rate assets or byproducts of the securitization process, such as interest-only strips and other types of excess servicing receivables. Whether the securing asset is being warehoused for sale or securitization or is being funded as a long-term portfolio investment, Standard & Poor's would expect to see that any hedges associated with the securing asset to protect it against market risk be assigned to the provider of the credit facility.

Length of the delay in recovering and liquidating collateral. If collateral can be liquidated quickly (e.g. within 60 days) opportunity costs are minimized, and recovery potential is assigned a high value in Standard & Poor's analysis. The longer the delay in recovering what is owed a lender under a secured line of credit, the less the value accorded the protection offered by collateral. If full principal recovery cannot be achieved within two years of a default, no recovery potential is recognized.

In estimating the length of delay, the analysis would focus upon how readily the legal system gives the lender access to collateral and how quickly the collateral could be turned into cash. In the U.S., 18-24 months is the typical time needed to resolve a Chapter 11 filing. (The analysis would identify and differentiate cases that might take longer because of litigation and other complexities.) Since the security is represented typically by loans, liquidation can be achieved through repayment, securitization or an outright sale. However, unless the securing asset is of short tenor or is in the form of a bullet loan, repayment may not occur quickly enough to qualify for credit enhancement recognition. Therefore, Standard & Poor's would expect a securing loan to be sold or securitized by the provider(s) of the facility to recover what is owed in the event of a default.

While the underlying collateral of a securing loan is not viewed as a direct source of repayment, the value of the collateral relative to the amount of the securing loan is factored into the analysis. Standard & Poor's incorporates a worst-case scenario in its analysis, in which both the borrower under the rated credit facility and the borrower under the securing loan default concurrently. In such an event, the likelihood that the foreclosure on, and sale of, the nonfinancial collateral would proceed efficiently, if at all, is highly uncertain. In essence, two foreclosure processes would have to be carried out in order to realize the cash to repay the line of credit. Under such a scenario, it is not certain, at least within U.S. jurisdictions, that the proceeds could be collected within the two years required to qualify for notching the rating of the line of credit above the counterparty rating. Again, Standard & Poor's assumes that a securing loan that has defaulted will be sold by the provider of the facility rather than directly collected; thus, once a securing loan defaults, its salability will depend largely on the value of the underlying collateral.

Advance rate against the collateral's value. The value of the collateral relative to the amount borrowed is a critical determinant of how quickly the collateral can be liquidated, and whether the proceeds generated would be sufficient to repay the borrowing. Consistent with the above, Standard & Poor's incorporates into its advance rate calculations both the discount rate against the securing loan's face value and the discount against the value of the loan's underlying collateral. Once the advance rate is calculated, Standard & Poor's assesses whether the advance rate would be sufficient to repay at minimum the outstanding principal within the two-year window allowed for notching. This analysis would focus on the quality of the securing loan (in terms of credit and market risk as discussed above), as well as the quality of the

underlying collateral (in terms of the factors that would affect its valuation and salability). Under such an analysis, advance rates against loans of a speculative nature, such as to finance the acquisition of undeveloped property, or against loans extended to borrowers with blemished credit records (e.g., a subprime mortgage borrower), would be expected to be significantly more conservative than against loans extended to borrowers conforming to Fannie Mae or Freddie Mac credit standards.

Fitting All the Pieces Together

The matrix that follows places the factors discussed above into a systematic framework. To begin, a distinction is made between borrowers whose counterparty rating is in the investment grade and those in the noninvestment-grade rating categories. As indicated earlier, notching in the investment-grade category is not as great as in the noninvestment grade category.

Second, within each of these two categories, three distinctions are made based on the Standard & Poor's level of confidence that the providers of a rated line of credit will recover either principal or principal and interest. These different levels of confidence are then defined by advance rates that incorporate both the amount that can be borrowed against the value of the loan and the value of the underlying collateral relative to the amount of the securing loan. The range of advance rates in each confidence category reflects the range of credit and market risk of the security. For example, Standard & Poor's would be more willing to accept advance rates falling within the lower end of a given range for such low-risk assets as home mortgages underwritten to conform to Freddie Mac or Fannie Mae credit criteria while expecting to see more conservative advance rates for subprime mortgage loans.

Finally, the time within which cash proceeds can be realized from the seizure and liquidation of security is laid over the various confidence levels to determine the degree of notching.

Special Issues

"Wet funding." Many mortgage warehouse facilities permit advances against mortgages serving as the facility's collateral in which not all documentation allowing the lender to enforce its claim against the loans has been delivered to the custodial agent. Under such arrangements, complete documentation may not be delivered for several days, in effect leaving unsecured the moneys advanced. Such a practice is known as "wet funding."

Standard & Poor's believes the risk to the lender of such a practice is modest. Rarely is full documentation not delivered to the provider of the warehouse line after four to five days. Failure to transfer documentation to the custodial agent in a timely manner usually would trigger an event of

Ultimate Recovery Rating Criteria Framework

ICR Rating Level: BB, B	Within 18-24 months	Within 6 months	Within 30-60 days
Advance rates 1.30x - 1.40x			
Reasonable confidence of full recovery of principal	+1 notch	+1 or 2 notches	+2 or 3 notches
Advance rates 1.40x - 1.65x			
Highly confident of full recovery of principal	+2 notches	+2 or 3 notches	+3 or 4 notches
Advance rates in excess of 1.65x			
Highly confident of recovering principal and interest	+3 notches	+4 notches	+4 notches

ICR Rating Level: A, BBB	Within 18-24 months	Within 6 months	Within 30-60 days
Advance rates 1.30x - 1.40x			
Reasonable confidence of full recovery of principal	+1 notch	+1 notch	+1 notch
Advance rates 1.40x - 1.65x			
Highly confident of full recovery of principal.	+1 notch	+2 notches	+2 notches
Advance rates in excess of 1.65x			
Highly confident of recovering principal and interest	+2 notches	+2 or 3 notches	+2 or 3 notches

default. While Standard & Poor's views as unlikely a declaration of default due to the occasional missed deadline, chronic failures to deliver in time could prompt a lender to exit the facility by threat of enforcing default covenants. Standard & Poor's believes that this threat does provide a strong incentive to the borrower to provide documents promptly to perfect the security. Consequently, no limits are placed on the amount of money advanced under a wet funding arrangement.

Unsecured credit. Only secured credit is eligible for a rating higher than the counterparty rating. The counterparty rating would be applied to any unsecured portion of the credit facility.

Performance covenants. Performance covenants, especially as they relate to capitalization or interest coverage ratios, are seen as allowing a lender to terminate the facility in the event that the borrower encounters financial problems. Standard & Poor's approaches the rating of secured lines of credit primarily in terms of collateral coverage; however, the rating for the facility may be influenced by the existence of covenants allowing the providers to exit the facility if the borrower's financial condition does begin to deteriorate.

Security other than secured loans. Will be evaluated on a case-by-case basis.

Rating Policies and Procedures: Distress and Default

With corporate defaults reaching a very high level in the past year, and many other low-rated companies struggling to meet debt service requirements amid a slowing U.S. economy, Standard & Poor's presents answers to the most frequently asked questions regarding its rating policies and procedures for cases of distress and default.

1. What is the definition of "default" with respect to Issuer Credit Ratings (ICRs)?

An ICR is changed to 'D' or 'SD' (Selective Default) upon the occurrence of a default on any financial obligation, rated or unrated. However, if an obligor does not pay on a financial obligation because of a bona fide commercial dispute, or it misses a preferred dividend, or it defers on deferrable payment hybrid securities, that would not be a default and would not cause the ICR to go to 'D' or 'SD'.

The 'D' and 'SD' issuer ratings, unlike other ratings, are not prospective; rather, they are used only when a default has actually occurred, and not if a default is only expected (even if the issuer has announced plans to default). 'D' is assigned when Standard & Poor's believes the default will be a general default and the issuer will fail to meet its other obligations as they come due. 'SD' is used if the issuer defaults selectively—that is, defaulting on one issue or class of issues, but honoring others in a timely fashion.

"Default" means actually missing a payment—of interest or principal—or a bankruptcy filing by the issuer or similar action. In addition, default includes conduct of a coercive tender or exchange offer, which is tantamount to defaulting even though no payment is missed. The issuer offers cash or securities having a total value that is clearly less than par—and the creditor has no real alternative to receive everything initially promised. Completion of such an offer, therefore, is treated as a default, notwithstanding the creditors' apparent acquiescence. If the issuer's offer is limited to specific issues only, the ICR is changed to 'SD'.

If the issuer defaults on foreign currency obligations because of foreign currency debt servicing constraints imposed by the sovereign, rather than because of its own financial condition per se, and payments continue on local currency obligations, the local currency ICR would not be changed to 'D' or 'SD'. Likewise (but far less common), when the issuer defaults on local currency obligations because of constraints imposed by the sovereign and payments continue on foreign currency obligations, the foreign currency ICR would not be changed to 'D' or 'SD'. In such cases, though, the difficult economic and business conditions could well necessitate a review of the previous local/foreign currency ICR.

For sovereign governments, the lowest Issuer Credit Rating in most cases would be 'SD', as governments typically continue paying debt service on some issues, but not on others. A sovereign local currency default occurs if central bank currency is converted into a new currency of less than equivalent face value. In the case of sovereign governments, default also includes a decision to seek debt relief through London Club or bond rescheduling, or through Paris Club negotiations that involve bond or commercial bank loan rescheduling. In addition, the initiation of the offer—rather than its completion—may be the trigger for use of the 'SD', given the Paris Club's policy of seeking "comparability of treatment" from commercial lenders and bondholders.

In the case of financial institutions other than insurance companies, the Issuer Credit Rating would be changed to:

- 'D' when the institution has defaulted and it is in bankruptcy or being liquidated;
- 'R' when the institution is clearly under government or regulatory supervision and potentially subject to default, but has not defaulted and might not do so.
- 'SD' when the institution continues to operate and has defaulted on some obligations, rated or unrated, while continuing to honor others; it might or might not be under regulatory supervision.

- An insurer's Financial Strength Rating or Financial Enhancement Rating would be changed to 'R' when the insurer is placed under regulatory supervision due to its financial condition.

2. What is the rating outlook when the ICR is 'D' or 'SD'? Is the 'D' or 'SD' ICR ever placed on CreditWatch?

When an ICR is changed to 'D' or 'SD', the rating outlook is changed to 'NM' (Not Meaningful). While a default continues, the outlook remains 'NM', even if prospects improve for a successful reorganization. Outlooks generally pertain to ICRs, not issue ratings; thus, even issues on which payments continued would not be assigned a different outlook. Exceptions may be made for sovereign commercial loans and bonds that fall outside of a Paris Club consolidation period (the period during which debt service payments falling due can be rescheduled).The ICRs of 'D' and 'SD' are never placed on CreditWatch, even when Standard & Poor's expects that a restructuring is about to be completed, with payments on financial obligations being resumed.

3. When are issue credit ratings changed to 'D'?

As with the 'D' and 'SD' issuer ratings, the 'D' issue rating is generally not prospective; rather, it is used only when a default has actually occurred, and not if a default is only expected (even if the issuer has announced plans to default). In most cases, the 'D' is assigned:

- On the day an interest and/or principal payment is due and is not paid. An exception is made if there is a grace period and Standard & Poor's believes a payment will be made, in which case a rating higher than 'D' is maintained. Unlike the typical case of corporates, the evidence from sovereign governments suggests that it is generally appropriate to wait until the end of the grace period before lowering the rating, unless the government indicates that it does not intend to pay; or
- Upon a bankruptcy filing or similar action, unless Standard & Poor's expects that debt service payments will continue to be made on a specific issue; or
- Upon the completion of a tender or exchange offer, whereby some or all of an issue is either repurchased for an amount of cash or replaced by other securities having a total value that is clearly less than par. *(See question #6.)*

A different approach is in the case of those structured financings in which, under the terms of the issue, the obligation is defined such that the formal payment default occurs only upon the maturity of the issue. In such cases, Standard & Poor's does use the 'D' rating prospectively, changing the issue rating to 'D' when the analytical conclusion has been reached that future payments will be insufficient for meetings the terms of the transaction.

A technical default (i.e., violation of a covenant or the triggering of a cross-default or cross-acceleration provision) is not sufficient for assigning a 'D' rating in the absence of a payment default, bankruptcy filing, or completion of a tender or exchange offer.

Once an issue defaults, the rating is changed to 'D' irrespective of ultimate recovery prospects. So, there is no notching: well-secured, senior unsecured, and subordinated issues are all rated 'D'.

4. What are the appropriate ICR and issue credit ratings when a default is anticipated?

Regardless of the certainty of an ultimate default, 'CC' is the lowest ICR in the absence of an actual payment default, bankruptcy filing, or completion of a tender or exchange offer for cash or securities having a total value that is clearly less than par.

'CC' is used as the ICR when a default is expected imminently, say, within six months (on any financial obligation, rated or unrated).

When the ICR is 'CC', junior issues can be rated 'CC' or 'C', in accordance with the usual notching criteria (except that issues that would otherwise be rated two notches below the ICR have nowhere to go below 'C'.) Well-secured issues that still appear to have full ultimate recovery potential would be rated at least 'CCC'. If there is a high degree of confidence about ultimate recovery and/or recovery is expected to occur relatively soon, Standard & Poor's could maintain a 'B' or 'B-' issue rating.

'CCC' is the appropriate ICR category for an issuer with a significant near-term risk of default—a "clear and present danger"—within a year or so.

For an issuer with an ICR of 'CCC-', issues warranting one- and two-notch differentials are rated 'CC' and 'C', respectively. For an issuer with an ICR of 'CCC', issues warranting one- and two-notch differentials are rated 'CCC-' and 'CC', respectively.

The ICR of 'B-' is appropriate for an issuer that faces severe competitive and financial challenges,

but there is relatively little risk it will fail within a year. In such a case, just the longer time frame generally increases the possibility that the enterprise could turn around or some additional means of financial flexibility might be found.

5. When are 'D' credit ratings withdrawn?

The decision of whether to maintain surveillance of an issuer in bankruptcy or other form of reorganization following a general default is made at Standard & Poor's discretion. As with all ratings, surveillance is maintained only if the available information is considered adequate by Standard & Poor's. If the decision is made to discontinue surveillance, the ratings are generally changed to 'NR' (Not Rated) soon after the default has occurred.

In any event, once an issuer's assets are liquidated (e.g., under Chapter 7 in the U.S., which is rare), the issue credit ratings are withdrawn once the distribution to claimholders is completed. Likewise, if an issuer emerges from court-supervised reorganization proceedings (such as Chapter 11 in the U.S.), or a privately negotiated reorganization in which the reorganization plan provides in some manner for the retirement of rated debt (e.g., through an exchange into new securities), the ratings on the old debt are withdrawn once the process of retirement is completed. If and when all issue ratings are withdrawn, the ICR may be changed to 'NR'.

Once an issuer emerges from bankruptcy or other form of reorganization, if Standard & Poor's is to maintain surveillance or first assign a rating, the issuer would be reassessed/assessed, taking account of the factors that precipitated the default but also any benefits garnered through the reorganization process.

6. What are the definition of and procedures for exchange or tender offers?

Issuers in financial distress may seek to avert a payment default or bankruptcy by restructuring their debt through an exchange offer (whereby a new security or package of securities is proposed as a replacement for an existing debt issue) or tender offer to repurchase debt for cash. Standard & Poor's views completion of such offers as tantamount to a default—if the total value of the securities, including interest or cash offered, is materially less than the originally contracted amount (even though it may be greater than the current depressed market value of the debt).

In most of these cases, holders of the issues subject to the offer have no practical alternative, except to let the issuer miss upcoming scheduled payments and possibly file for bankruptcy. Even if the time frame for a possible payment default and/or bankruptcy filing is somewhat longer-term, the nominal value of the exchange or tender package points up acknowledgment by the issuer that the investor should not expect full repayment as originally promised.

When an issuer has initiated an exchange offer in such circumstances, its ICR is lowered to 'CC' (assuming it is not already at this level) and placed on CreditWatch with negative implications. Although the benefits to the issuer of success of the offer could be substantial and eventually lead to a higher rating, the CreditWatch Negative listing addresses the next potential rating change, which would be to 'SD'—upon success of the offer—or to 'D' if, as often occurs, there is a payment default and/or bankruptcy filing if the offer is unsuccessful.

If the issue that is the subject of an exchange or tender offer in such circumstances is rated, the issue rating is lowered to 'CC' or 'C' and placed on CreditWatch Negative, pending the outcome of the offer. Once the offer is consummated for some or all of the issue, the issue rating is lowered to 'D' because an effective default has occurred. (Obviously, if a payment default occurred on a debt issue while the exchange or tender offer was pending, the ICR and issue ratings would be lowered to 'D' or 'SD' and 'D', respectively, at that time.)

Other rated debt issues besides the issue or issues subject to the offer may be appropriate candidates to be placed on CreditWatch with developing implications, reflecting—on the downside—the risk if the offer fails, and—on the upside—the benefits of the offer if completed.

Eventually, beyond the point when the offer is successfully completed, the rating procedure is similar to that for a company emerging from bankruptcy: the ICR is changed from 'D' or 'SD' to whatever rating is appropriate given the issuer's prospects. The issue ratings are also changed accordingly, including the ratings on any remaining stump portions of issues that had been subject to exchanges or tenders.

7. What about defaults that are seemingly never resolved?

In some cases, the defaulted obligation is never discharged by the court or formally restructured or renegotiated by the parties involved. Still, the ICR may be raised from 'D' or 'SD' to whatever rating is appropriate given the issuer's prospects if, based on the passage of time and the expectation that no further resolution will occur, the 'D' or 'SD' comes to lack relevance in the context of the market, which seeks an opinion on the ongoing creditworthiness of the company. In other words, the lack of resolution may eventually be deemed a de facto reorganization.

8. How are preferred stock ratings handled?

Preferred stock is rated 'D' upon a bankruptcy filing by the issuer. Preferred stock ratings are also lowered to 'D' when an issuer omits a dividend payment. As with the 'D' rating in the case of debt issues, the omission must actually have occurred. The omission is deemed to have occurred when, at the time the issuer's board would normally declare the dividend, no such action is taken.

The 'C' rating is used for cumulative preferred stock when an issuer has resumed paying dividends but an arrearage still exists. 'C' is also the normal rating on preferred stock of issuers with ICRs of 'CCC', 'CCC-', or 'CC' when dividend payments are still being made. In addition, 'C' is the rating assigned to any preferred stock when a deferral of the dividend is viewed as imminent, whatever the ICR of the issuer.

9. What about public finance issues?

As with corporate debt issues, public finance debt issues are rated 'D' upon the occurrence of a default. In the case of lease- or appropriation-backed debt, the causes and circumstances of the default are assessed to determine whether, in light of the default, the credit quality of the obligor is still appropriately reflected in the obligor's general obligation rating. However, in the absence of a default on a general obligation issue, the general obligation rating would not be lowered to 'D' or 'SD'.

The Global Perspective

Sovereign Risk for Financial Institutions

Sovereign credit risk is a key consideration in the assessment of the credit standing of financial institutions and corporates. Sovereign risk comes into play because the unique, wide-ranging powers and resources of a national government affect the financial and operating environments of entities under its jurisdiction. Past experience has shown time and again that defaults by otherwise creditworthy borrowers can stem directly from a sovereign default, or indirectly from the deterioration in the local operating environment or regulatory framework that typically accompanies a sovereign default.

In the case of foreign-currency debt, the sovereign has first claim on available foreign exchange, and it controls the ability of any resident to obtain funds to repay creditors. To service debt denominated in local currency, the sovereign can exercise its powers to tax, to control the domestic financial system, and even to issue local currency in potentially unlimited amounts. Given these considerations, the credit ratings of non-sovereign borrowers most often are no higher than the ratings of the relevant sovereign.

While "sovereign ceiling" is an inappropriate term, Standard & Poor's always assesses the impact of sovereign risk on the creditworthiness of each issuer and how it may affect the ability of that issuer to fulfill its obligations according to the terms of a particular debt instrument. This is done in a more flexible manner than the term "ceiling" suggests, by looking at the issuer's own position and ability to meet its obligations in general, as well as the particular features of a specific obligation that might affect its timely payment. For example, borrowers may add features to specific debt issues, such as external guarantees, or they may structure them in particular ways, such as asset-backed transactions, that enhance the likelihood of payment. Nevertheless, for debt issuers in all but the highest-rated countries, the sovereign risk factor remains an extremely important consideration in the assignment of overall creditworthiness.

Two key elements form the basis for Standard & Poor's evaluation of sovereign risk on the creditworthiness of a particular issuer or debt issue:

- The economic, business, and social environments that influence both the sovereign's own rating and those of issuers domiciled there.
- The ways in which a sovereign can directly or indirectly intervene to affect an entity's ability to meet its offshore debt obligations, even if that entity has sufficient funds on hand to meet that obligation.

Actions by the Sovereign

Sovereign governments in many countries act to constrain an issuer's ability to meet offshore debt obligations in a timely manner. While higher-rated sovereigns are not expected to interfere with the issuer's ability to use available funds to meet such offshore obligations, the chances of some form of intervention increase significantly for entities domiciled in lower-rated nations.

At a time of local economic stress, when foreign exchange is viewed as an increasingly scarce and valuable commodity, the likelihood of direct constraint on, intervention in, or interference with access to foreign exchange can be high. For this reason alone, it is unlikely that most issuers' ability to meet offshore debt obligations in a timely manner can be viewed as more probable than their sovereigns' own likelihood of meeting their offshore debt obligations. Even when the issuer has sufficient funds to meet its offshore debt obligations, the sovereign may absolutely prohibit, or otherwise constrain, the issuer from meeting those obligations in a timely manner.

A sovereign government under severe economic or financial pressure, which is seeking to retain valued foreign-currency reserves in the country and which may not be able to

Sovereign Risks and Bank Ratings

The issuer credit (that is, counterparty) rating of a financial institution reflects the sovereign risk posed by its country of domicile. Ratings on individual obligations in the same debt class may be rated differently due to the ability of another foreign sovereign government to interfere with the issuer's ability or willingness to pay on a particular obligation in a timely manner.

When rating a bank obligation, there may be two important sources of "sovereign risk" to consider:

- The country of domicile; and
- The host country in which a local branch is located, if different.

As explained in the accompanying article, it is unlikely that a bank could be viewed as more creditworthy than the sovereign itself in terms of meeting foreign- or local-currency obligations due to the government's legal and regulatory powers over the financial markets and the banks themselves. These powers make it improbable that a government would default on its own debt but allow domestic banks (including the local branches of foreign banks) to continue to meet all of their obligations in a timely manner. The main exceptions to these general rules could be a foreign-currency rating for an offshore bank or an onshore bank whose local business is largely incidental to its otherwise internationally dispersed activities, which provide the basis of its creditworthiness.

The second sovereign risk previously listed comes into play once a bank contracts obligations in foreign jurisdictions. For purposes of clarity, this discussion focuses on how a foreign sovereign government may affect the rating of a bank's senior debt. However, the same risks exist for other types of bank obligations (for example, deposits; off-balance sheet obligations, such as swaps; subordinated debt; junior subordinated debt; and preferred stock).

The most common scenarios in which the risk of a foreign government may affect the rating of a bank's obligation are:

1. The bank issues a senior obligation out of a branch located in a country whose government's foreign-currency rating is lower than the bank's senior debt rating; the obligation is denominated in a currency other than the local currency of the branch's host country.
2. The bank issues a senior obligation out of a branch located in a country whose government's local-currency rating is lower than that of the bank's senior debt; the obligation is denominated in the local currency of the branch's host country.

As a general matter of corporate law, a branch has no separate existence from the bank. However, branches are also subject to the laws of their host countries. Based on past experiences, such as the 2001-2003 Argentine crisis, it appears likely that certain obligations of branches would not be serviced if the host sovereign government were to impose foreign-exchange or some other type of control that prohibited the local branch from paying on that obligation in a timely manner. Thus, it is important to determine if the obligation will be paid out of worldwide assets or if the bank is only obligated to pay out of the resources of the branch.

Sometimes this is clear in the issue's documentation. At other times, Standard & Poor's analysts must examine the laws of the host country and the bank's country of domicile to make a determination. In the less frequent cases where it is clear that the obligation will be serviced by worldwide assets of the bank, the rating of the obligation will not be limited by the host government's local or foreign currency rating. In the more usual cases where it is determined that the obligation is payable only out of branch assets or the case is ambiguous and no legal opinion stating the contrary can be provided, the host government's local- or foreign-currency rating, as appropriate, will limit the rating of the obligation in question.

For example, if a British bank with a 'AA' senior debt rating issues a Brazilian Real CD, payable only out of that Branch, it would be rated 'BB', the same as Brazil's local-currency rating (as of February 2004). If the Brazilian branch issued a U.S. dollar CD, payable only out of that branch, the CD would be rated 'B+', the same as Brazil's foreign-currency rating. If the branch issued a U.S. dollar bond and the bond was clearly payable out of worldwide assets, that bond would be rated 'AA'.

meet, or already has not met, its timely obligations on offshore debt, could impose many constraints on other governmental or private-sector borrowers, including:

- Setting limits on the absolute availability to foreign exchange;
- Maintaining dual or multiple exchange rates for different types of transactions;
- Making it illegal to maintain offshore or foreign-currency bank accounts;
- Requiring the repatriation of all funds held abroad, or the immediate repatriation of proceeds from exports and conversion to local currency;
- Seizing physical or financial assets if foreign-exchange regulations are breached;
- Requiring that all exports (of the goods in question) be conducted through a centralized marketing authority, or the posting of a significant bond prior to the export of goods to assure immediate repatriation of proceeds;
- Implementing restrictions on inward and outward capital movements;
- Refusing to clear a transfer of funds from one entity to another;
- Revoking permission to use funds to repay debt obligations;
- Mandating a moratorium on interest and principal payments, or required rescheduling or restructuring of debt; and
- "Nationalizing" the debt of an issuer and making it subject to the same repayment terms or debt restructuring as that of the sovereign.

Banking industry risk. Banking is more likely than any other industry to be directly or indirectly affected by any sovereign default or other such crisis. This vulnerability is due to the extremely high leverage of banks (compared to corporates), the volatile valuation of their assets and liabilities in a crisis, their dependence on confidence (which can disappear in a crisis), and their typically large direct exposure to their sovereigns.

Bank ratings, therefore, with few exceptions, logically should not exceed those of their sovereigns. Specifically, foreign-currency ratings of banks will generally not exceed the foreign-currency ratings of the sovereign, and local-currency ratings of banks will generally not exceed the local-currency ratings of the sovereign. In many cases, even the local-currency ratings of banks should not exceed the foreign-currency ratings of the sovereign, due to banks' exposure to sovereign foreign-currency debt.

In determining whether banks could be rated higher than the sovereign, the following needs to be taken into account:

- Banks are subject to deposit freezes, debt payment moratoriums, and exchange controls, which can directly prohibit their paying certain classes of liabilities;
- Banks typically have substantial credit exposure to their governments, including large portfolios of government securities, and can become technically insolvent in the event of a government default;
- Banks' loan portfolios typically deteriorate sharply in an economic crisis, adding to the risk of insolvency;
- In a crisis, banks can be subject to intense liquidity pressures; and
- International parents of emerging-market banks frequently and explicitly disavow in advance any intention of paying subsidiaries' obligations in the event government actions prevent them from paying.

All or certain specific obligations of banks might be rated somewhat higher than those of the sovereign in the following situations:

- Offshore banks;
- Banks in countries that have adopted the dollar or euro as their local currency, where such adoption is considered permanent, though banking system risks must still be taken into account;
- Banks with a domestic license, but with most of their operations outside of their home country, and where—based on law or precedent—there is only a remote possibility of a freeze, debt payment moratorium, or exchange controls affecting debt payment;
- Banks with strong foreign parents in countries where there is only a remote possibility of a freeze, moratorium, or exchange controls affecting debt payment;
- Banks without heavy exposure to sovereign debt in countries where the main factor behind a low sovereign rating is the likelihood of occasional delays in payment on internal sovereign debt; and
- Structured issues, including those backed by future flows, where the likelihood of the bank surviving is considered greater than that of its meeting all of its financial obligations on a timely basis.

Reasons Banks Rated No Higher Than the Sovereign

Freezes, Moratoriums, and Exchange Controls. Deposit freezes, debt moratoriums, and exchange controls have traditionally served as the principal rationale for not rating bank foreign-currency debt higher than the foreign-currency debt of the country of domicile (and one of the reasons for seldom rating the local-currency debt of the banks higher than the local-currency debt of the country). There is recent evidence supporting that rationale.

- Pakistan, two months before its own July 1998 default on bank loans, froze all foreign-currency deposits in domestic banks.
- Russia, immediately following its August 1998 default on short-term local-currency debt, imposed a 90-day moratorium on bank obligations to foreign counterparties.
- Ecuador froze all bank accounts in March 1999, several months before its own default on Brady and Eurobonds.
- Argentina imposed foreign-exchange controls and severe restrictions on all bank deposit withdrawals in December 2001, one month after its default on its own bonds; in 2002 mandated restructuring of those deposits, including conversion of Dollar deposits into Pesos and a lengthening of maturities; and only finally allowed free withdrawals beginning in the spring of 2003.

Unquestionably, these banking systems were weak before the deposit freezes or debt moratoriums. Thus, the freezes were put in place mainly to prevent funds from flowing out of the banking system, rather than to preserve available foreign currency for the sovereign, as was the case with most of the freezes of the 1980s. However, in each of these cases, the banking system's weakness was caused or at least exacerbated by the weakness of the sovereign. Considering all the ways in which banks are affected by sovereign risk, a sovereign crisis will nearly always lead to an extremely weak banking system, justifying such measures as deposit freezes.

Exposure to government credit, particularly through ownership of government securities, is generally substantial. In most cases, these securities can be used to fulfill regulatory liquidity requirements. Even where not necessary for regulatory purposes, government securities typically are the preferred liquid instrument for most banks. Depending on the country, these securities can be denominated in local currency or in U.S. dollars (particularly in highly dollarized countries). Thus, banks can be exposed to the government's foreign-currency creditworthiness as well as its local-currency creditworthiness.

Additionally, in most emerging markets, banks have direct or indirect lending exposure to the central government. Indirect exposure would include loans to regional governments (states or provinces), which frequently are collateralized by amounts due from the central government. Another source of indirect exposure involves loans to public-sector agencies and companies that rely on support from the central government or payment on contracts with the government.

Finally, banks would typically have large exposures to the Central Bank in the form of reserves. Although Central Banks have occasionally failed (for example, in the Philippines), this is considered a remote risk. Default by the government would not normally lead to a freeze on bank reserves in the Central Bank, as long as the reserves are in local currency. However, in those cases where a portion of reserves must be maintained in U.S. dollars (as in Peru), this would be a concern.

Even if banks' exposure to governmental credit appears to be moderate in good times, it is important to consider likely behavior before a crisis. Frequently, a government default would be preceded by a boom-and-bust scenario. During the boom times, banks would increase their loans and decrease their portfolio of government securities. Typically, they would increase higher-yielding loans to private-sector companies and individuals more rapidly than lower-yielding public-sector loans. Exposure to the government would appear to be low. When the economy heads downward, the tendency is to cut back on new private-sector loans due to credit concerns. The worse the economic downturn, the sharper the cutback in lending. If deposits continue to grow, excess funds are channeled into more government securities. As the government begins to experience problems, the rates it pays on government bonds increase, attracting more bank investment. In the worst-case scenario, there will be political pressure on banks to increase their holdings of government securities. Thus, the larger Argentine banks, which typically had government securities investments approximately equal to their equity at year-end 1998, gen-

erally had more than twice their equity exposed to Argentine government credit risk by mid-2001.

In most countries, a generalized government default would lead to the economic insolvency of all the nation's banks. This probably would not be readily apparent from their balance sheets, as the government securities would probably not be marked to market in such a situation (even though they should be, because the decline in value would be due to impaired creditworthiness rather than temporary movements in market interest rates). Insolvency by itself would not necessarily lead to immediate defaults by, or closures of, the banks. If regulators forbear from requiring realistic valuation of assets and depositors do not withdraw their money, banks can exist while insolvent for months or even years. More often than not, however, the costs of eventually recapitalizing or closing insolvent banks rise, not shrink, over time. In any event, the risks to the creditors in such a situation are huge, because if the banks are not in default, they are certainly on the verge of default.

Loan portfolio quality deterioration. Deterioration in the quality of the loan portfolio is also almost certain to accompany a government crisis. Economic conditions in the country will typically be severe, leading to corporate and individual defaults, bankruptcies, and debt restructurings. Sharp devaluations of the currency and increases in interest rates are likely to occur, aggravating the situation for many borrowers. An actual default by the government would add to the chaos.

Whether the government finally defaults or manages to avoid it, a solvency crisis would have a severe impact on banks' loan portfolios. In the Asian crisis of the 1990s, problem loans of banks in Thailand and Korea easily reached one-third to one-half of their portfolios, and in Indonesia as much as three-quarters. As with government securities, in such a general crisis, banks will probably neither report the full extent of their problem loans nor adequately provision for the likely losses. Nevertheless, they will be insolvent economically.

Liquidity pressures. Liquidity pressures are the most critical. Banks can sometimes operate for a period of time if they are insolvent, but not if they are illiquid.

Typically, in the event of a sovereign crisis, banks that borrow foreign currency in international markets will begin to feel the pressures well in advance of a sovereign default. As investors and counterparties become aware of the risks, banks will be closed out of the capital markets, and many correspondent banks will begin reducing or even eliminating interbank lines. Many corporate customers that had borrowed foreign currency from the banks will be unable to repay those loans and will ask to roll them over, reducing foreign loan repayments as a source of cash. As long as the banks have foreign-currency liquid assets they can sell or borrow against, they can handle the pressures. But if they are counting on holdings of foreign-currency securities of their own government and it defaults, those securities become either totally illiquid or salable at a fraction of face value. A sovereign foreign-currency default could therefore easily lead to bank defaults on their foreign-currency obligations, even absent any direct controls or imposed moratoriums, in systems where the banks have substantial foreign-currency liabilities. Because Standard & Poor's defines a "local currency rating" as an entity's likelihood of paying all of its financial obligations (including foreign currency) absent direct sovereign intervention to prevent payment on foreign-currency obligations, this risk has to be taken into account in both the local-currency and the foreign-currency rating of the bank. Hence, even the "local-currency" rating of a bank with substantial foreign-currency obligations will seldom exceed the foreign-currency rating of its country.

The same series of events could occur in local currency if the government was perceived as likely to default on its local-currency securities. Generally, retail deposits in local currency would be less likely to run off than market-derived funds. However, if the government was perceived as likely to either sharply devalue the currency or impose a deposit freeze, even the retail deposits could flee the banking system. For example, in the 1995 Tequila crisis, Argentine banking system deposits fell 18% from peak to trough, with Argentine peso deposits falling more sharply than dollar deposits. In this crisis, there was also a flight to quality, so deposits of the larger, more creditworthy banks did not fall as far as those of numerous small banks, many of which failed. The government itself on that occasion, however, did not even come close to defaulting.

Support from foreign parent banks. Support from foreign parent banks, sometimes cited as a reason to rate banks higher than the sovereign, is often

disavowed by the parents themselves. Management of parent banks will frequently state their intent to support their subsidiaries, without going so far as to absolutely guarantee their liabilities. They will generally qualify this, however, letting it be known that they will not feel obliged to do so in the event of a sovereign-induced crisis. In cases where foreign parent banks formally guarantee debt of subsidiary banks in emerging markets, or even in the case of branches, there are typically disclaimers specifically excluding sovereign risk, stating that the debt is payable only at a specific in-country branch, and only to the extent and in the currencies allowed by the government.

In the event of a sovereign crisis, where there is no actual deposit freeze or debt moratorium, parent banks will make commercial decisions about whether or not to support their subsidiaries. They will take into account factors such as what other banks are doing, whether or not their reputation is likely to be damaged if they do not support their subsidiary, how much they have already invested in the subsidiary, how much more they would have to put in, and whether they are likely to ultimately recoup their investment. In making these decisions, they will be under an obligation to take into account first the interests of their own depositors, creditors, and shareholders. Thus, while parent support could help a subsidiary bank survive a sovereign crisis and possibly even pay all its obligations on a timely basis, to base a rating substantially above that of the sovereign on assumed support, without clear evidence of the parent's intent, would be imprudent.

Banks Rated Higher Than the Sovereign

Offshore banks. Offshore banks are the clearest cases of banks that can be rated higher than the country in which they are domiciled. Typically, these banks are headquartered in certain countries that encourage their establishment and grant them special licenses. The licenses usually exempt them from certain domestic regulations and taxes but do not allow them to do any (or only very limited) domestic business. Standard & Poor's looks at offshore banking systems on a country-by-country basis and would expect to see:

- A strong constitutional and legal system,
- A clear legal and regulatory demarcation between domestic and offshore banks,
- Limited exposure of the offshore banks to the local economy, and
- Economic incentives for the government to maintain the offshore banking system's stability.
- Given the proper conditions, the local sovereign rating is considered irrelevant to the rating of the offshore banks. Standard & Poor's has determined that these conditions apply to the Cayman Islands and Bahrain, for example.

Banks in Eurozone and countries adopting dollar or Euro as local currency. Standard & Poor's has decided that the likelihood of foreign-exchange controls in individual Eurozone countries is remote and is associated with a 'AAA' rating. Thus, although banks are still subject to the economic and industry risks of operating in the country, they are not considered to be at risk of exchange controls or deposit freezes. In theory, banks in these countries could be rated higher than their sovereign, although in actuality this has not happened. Institutions in European Union candidate countries could also be rated as high as 'A+' (as of February 2004), even if their country of domicile's rating is lower.

Similarly, banks in countries that have fully adopted the U.S. Dollar or the Euro as their currency, where such adoption is expected to be permanent, can also be rated higher than the sovereign. Standard & Poor's believes that in such nations, sovereign interference risk is lower than sovereign default risk. A sovereign's willingness and ability to use foreign-exchange controls in those countries are limited due to extensive and legal use of foreign currencies in domestic transactions. Similarly, however, indirect impacts on a bank of a country's weakness are taken into account. The clearest example is Panama, where there is virtually no chance of the government reversing long-standing full dollarization. Standard & Poor's has long rated one of the leading banks slightly higher than the government.

Banks operating mainly abroad. Banks that operate mainly outside of their own country can, under some circumstances, be rated higher than their country, even though they have some operations within the country. There are few such banks, because most banks build their operations abroad after their domestic position is secured, and frequently strive first to follow their domestic customers abroad. A few, however, would probably

be able to demonstrate the following requisites to be rated higher than the sovereign:

- The vast majority of their assets, liabilities, and earnings outside of their home country;
- A geographically diversified base of customers;
- Operations abroad sufficiently strong to justify the rating, even assuming home-country operations are shut down or somehow carved off;
- An international funding basis unlikely to run off because of problems in the home country, and sufficient liquid assets abroad to cover any likely drop in deposits or other funds; and
- Domestic law that does not claim the right to freeze deposits of the country's banks abroad, supported by past precedent if the country in question has actually experienced difficulties.

Even if all of these conditions are in place, it is unlikely that the counterparty rating of the bank would be higher than that of the sovereign. The counterparty rating covers the likelihood of payment on all obligations of the bank, including domestic obligations that might be subject to a domestic freeze or moratorium. However, specific obligations or debt programs outside of the home country could be rated higher.

Other Cases. Banks with strong foreign parents might be rated slightly higher than the sovereign, but only if the possibility of a freeze, a moratorium, or exchange controls affecting the debt appear remote. In general, foreign parents are probably most likely to support their subsidiaries with problems in emerging markets when the problems are bank specific. The support is least likely to materialize when the subsidiaries are subject to direct government intervention interfering with their ability to pay their liabilities. As stated above, in the event of a sovereign crisis where there is no actual deposit freeze or debt moratorium, they are likely to make commercial decisions about whether or not to support their subsidiaries. Thus, if a freeze or moratorium appeared unlikely, even though a sovereign default would have a substantial negative impact on the bank, the possibility of parent support might merit a slightly higher rating for the bank than for the country.

A few countries have fairly frequent delays on their domestic debt, even though they may generally pay external debt on a timely basis. Since the country's ratings cover domestic and foreign-currency debt, they tend to be low. However, within the country, the banks adapt to the situation. They maintain relatively low exposures to the government, and nobody panics if the government does not make a particular debt payment on time. Venezuela is such an example. At times, the country has been in default on select local-currency obligations, while the banks continued to service all of their obligations on a timely basis. In general, if a sovereign local-currency rating is low due to this type of domestic debt-servicing timeliness problem, a bank's rating could well exceed the sovereign local-currency rating.

Obviously, if the country is actually in default on all or certain of its obligations, and a particular bank is not, the bank's rating is not limited to the 'D' or 'SD' of the sovereign. For example, when Indonesia was in default on certain official and commercial debt from 1999 to 2002, it continued to service its debt to banks; those banks that it had not closed were able to continue to pay their obligations. And in the Argentina crisis, by late 2003 or early 2004, most surviving Argentine banks had finally restructured their obligations and could have ratings higher than the 'SD' of the sovereign, which still had not.

Structured issues of banks can also be rated higher than the rating of the country. These include future flow transactions, which require the bank to continue to operate. The risk of the bank being liquidated is often significantly less than the risk of it defaulting on certain financial obligations, particularly in a sovereign or banking system crisis. The evaluation of the survivability of the bank, which is used in rating the future flow transactions, can be higher than the sovereign rating.

Bank Survivability Criteria

Standard & Poor's has noted that bank regulatory and supervisory authorities in many countries often assist key banks suffering financial stress. This assistance can take the form of an active restructuring of the troubled institution(s) or, alternatively, the adoption of a more passive policy of regulatory forebearance. Because forebearance is sufficient in many cases for a troubled bank to continue operating, Standard & Poor's evaluation of a bank's ability to survive is not necessarily limited by the local currency rating of the domicile country's government, even in those cases in which the sovereign rating is quite low. Moreover, evidence collected globally from recent episodes of government intervention in troubled key banks suggests that structured transactions need not be compromised by severe bank financial problems, assuming that the regulatory authorities honor the underlying structure and, in addition, that the bank is allowed to maintain key processing functions and possesses some operational liquidity.

Although bank survivability evaluations are not ratings, Standard & Poor's developed them in recognition of the fact that large, systemically critical banks are often supported or granted regulatory forbearance by their governments in times of financial system stress or incipient insolvency. This practice reflects the concern that many governments often exhibit over the potential consequences that a major bank failure, or rumors of a potential failure, could have on the functioning of both the confidence-sensitive banking system itself and on an economy heavily reliant on bank-supplied financial intermediation.

A rating-relevant implication of this practice is that systemically critical banks can sometimes be in selective default on certain financial obligations, but may nonetheless be allowed to remain in operation to undertake some or all of their usual activities. In particular, a troubled bank's processing functions, especially those that require minimal or no liquidity, are essential to the functioning of the economy, earn fees for the bank, or earn the institution and the country foreign exchange, can often be maintained even under circumstances in which other bank-based financing activity has either been suspended or frozen.

Standard & Poor's believes a supervising authority's willingness to allow the partial functioning of one or more impaired banks to be particularly likely in a systemic stress situation in which a continuation or resumption of critical payments systems functions is regarded by the relevant authorities as essential to the operation of the economy. In these circumstances, governments often have a strong incentive to keep all, or at least some, of the nation's leading banking institutions at least partially operating for fear of a systemic collapse that could cripple an economy for an extended period of time. Even in cases in which the financial stress is institution specific, however, the potential failure of a key bank is often regarded by governments as potentially too destabilizing to the financial system—or politically unpopular—to be allowed. Standard & Poor's bank survivability evaluations are therefore intended to give recognition in certain rated structured finance transactions to the incentives that governments and monetary authorities have in maintaining the operation of key financial institutions.

It should be noted that "survivability" in the sense that an issuing bank avoids liquidation is a necessary, but not a sufficient condition for the proper functioning of future flow structured finance transactions. An issuing bank does, in fact, need to engage in certain specific activities for a transaction to perform properly, including:

- *Honor the transaction's legal structure.* Generated receivables should be made available to investors according to the transaction documentation and not claimed by the bank's creditors, including any government or regulatory authority.
- *Maintain a viable branch network*. A branch network is usually necessary to purchase receivables from the small and midsize businesses that typically generate the assets used in bank-issued future flow structured finance transactions.

- *Maintain sufficient liquidity.* Bank-issued, future flow transactions are essentially securitizations of pass-through assets. Specifically, the assets belong not to the issuing bank, but rather to the issuing bank's customers. The bank benefits from the securitization of these foreign currency assets due to its role as a financial intermediary. As a result, the bank must maintain sufficient liquidity so that it can pay the difference between what it receives from the transaction after payment of debt service and what it owes to its customers upon completion of the transaction.
- *Continue to operate that portion of the business that gives rise to the securitized assets.* An issuing bank must be able to maintain its transaction-critical business operations in order to generate eligible receivables for the payment of debt service. For example, if a bank issues a credit card merchant voucher-backed transaction, the bank must generally maintain a viable voucher acquisition business in order for the transaction to perform properly.

It should be noted, however, that a temporary disruption to a transaction-critical business line or a bank's available liquidity, such as a short-term bank holiday or banking system freeze, need not impact a transaction's performance. The risks posed by a disruption often can be addressed through the inclusion of structural credit enhancements, such as reserve accounts, that are sufficient in size to cover all debt service for a specified period of time. In its review of a proposed transaction, Standard & Poor's may request that certain identified risks be mitigated through specific forms and levels of credit enhancement in order for the transaction to receive the maximum possible rating elevation.

Key Factors That Determine Survivability Elevation

Standard & Poor's will assess whether an institution is eligible for survivability rating elevation, as well as the degree of elevation. These criteria are intended to be an indicative—but not exhaustive—list of the factors that Standard & Poor's considers in rating bank-issued future flow transactions.

Market share and ownership structure of the issuing bank. The larger the issuer, relative to both its competitors and the market as a whole, the more elevation credit that can be given. Ownership by the government or the assignment of a specific policy role by the authorities (to provide banking services to low income segments of the population not served by private-sector banks, for example) can also be important factors. In the case of a public-sector bank with unique or important public policy roles, Standard & Poor's may determine that the survivability of such a bank might not be expected to fall below a certain level, regardless of how low its counterparty credit rating might be. Institutions that fall into this category may be able to receive elevation in excess of the one-to-three notch guidelines applicable to most other institutions.

Historical government policy regarding bank workouts in the issuing bank's domicile country. Standard & Poor's will review the policy statements and past practice by the supervisory authorities in the issuer's country in an effort to determine the likelihood of official support should the issuer experience serious financial stress. All else being equal, an issuer whose government has in the past intervened in banks in a manner that preserved troubled banks' key operations and honored the banks' capital market obligations is more likely to receive rating elevation than one whose government has not been as supportive of capital market creditors.

The financial strength of the issuing bank relative to other large banks in the same market. If an issuing bank's financial strength is strong relative to local standards in the domicile country (even if weak on a global comparative basis), the institution may well benefit from a flight-to-quality in the event of a systemic crisis and, therefore, be more likely to survive. Banks that fall into this category would be eligible to receive greater rating elevation on their issued future flow transactions than financially weaker banks.

The amount and type of liquidity the bank possesses. Even in the event of regulatory forebearance during a financial stress event, sufficient liquidity will be necessary for the bank to continue to operate. In order for an issuing bank's survivability rating to exceed the sovereign's own local currency rating, the issuer's liquidity should be sufficient to maintain transaction-critical operations in the event of a default by the government on bonds held by the banking system.

The size of the transaction undertaken by the bank issuer. Because bank-issued, future flow structured finance transactions securitize fund flows that ultimately pass through to the bank's customers, short-dated assets that amortize quickly (or longer-dated assets that may suffer an acceleration event) can potentially strain an issuer's liquidity resources. Therefore, the size of the proposed

issuance will be an important credit consideration, particularly for shorter maturity asset types such as diversified payment rights transactions.

The structural strength of the transaction being rated. Standard & Poor's will review the specific structural features, such as debt service coverage, legal protections, off-shore trapping mechanisms, and reserve accounts, of any proposed transaction. The quality of these structural features should be consistent with the degree of survivability elevation sought.

Issuing bank's competitive position in the business line giving rise to the securitized asset. The issuer should have a significant market share and strong competitive position in the business line that generates the securitized assets. The stronger the bank's market position, the smaller the risk that the issuer would not be able to generate sufficient receivables to service the transaction.

Ability and propensity of the issuer's government to interfere with the transaction. Standard & Poor's will evaluate whether the transaction is likely to be subject to government interference to a degree that is inconsistent with the transaction's targeted rating.

The table lists some of the issuing-bank characteristics that Standard & Poor's will evaluate when an issuer requests a rating for a future flow transaction that is higher than the issuer's counterparty credit rating. This matrix includes examples of three hypothetical banks to provide an illustrative profile of a bank issuer eligible for one, two, or three notches of rating elevation, respectively, on a future flow transaction. It should be noted that the use of these particular hypothetical examples is not meant to imply that reaching certain numerical targets in one or more of the factors examined would by itself lead to rating elevation above the bank's counterparty credit rating. In addition, the rating elevation provided in these examples assumes that all aspects of the structure, including legal documentation and stressed cash flows, support the final rating.

Customized Approach Used To Rate Transactions

As mentioned earlier, Standard & Poor's may be able to consider survivability elevation in excess of three notches for transactions in certain selective cases. A bank issuer seeking rating elevation in excess of three notches over its own counterparty credit rating, however, would generally need to hold a unique public policy role within the country's financial system or be able to structure a transaction that is exceptionally strong in all of the eight major credit areas outlined above. During the rating process, Standard & Poor's will evaluate each transaction in its own operational context, reviewing the issuer, industry, and country-related credit factors that could impact its performance and the potential credit enhancements that could be employed to mitigate these risks. Issuer flexibility in devising structural protections for identified risks can often aid the final transaction rating.

Issuing Bank Characteristics

	Bank A	**Bank B**	**Bank C**
Counterparty credit rating	BB-	BB-	BB-
Sovereign local currency rating	BB	BB	BB
Type of bank	Universal	Universal	Universal
Market share ranking	#2	#1	#1
Market share (%)	15.0	20.0	30.0
Share of largest competitor (%)	17.0	15.0	15.0
Special public policy role	None	None	None
Government policies on bank support	Moderately supportive	Moderately supportive	Strongly supportive
Financial strength versus peers	Average	Above average	Well above average
Liquidity	Above average	Well above average	Well above average
Size of future flow transaction	Small	Small	Small
Strength of transaction structure	Strong	Strong	Strong
Bank's competitive position in line of business	Strong	Strong	Very strong
Transaction rating	BB	BB+	BBB-