Rating Methodology: Evaluating the Issuer

Industrials and Utilities

Standard & Poor's uses a format that divides the analytical task into several categories, providing a framework that ensures all salient issues are considered *(see box)*. For corporates, the first several categories are oriented to fundamental business analysis; the remainder relate to financial analysis. As further analytical discipline, each category is scored in the course of the ratings process, and there are also scores for the overall business risk profile and the overall financial risk profile. (Analytical groups choose various ways to express these scores: Some use letter symbols, while others prefer to use numerical scoring systems. For example, utilities scoring is from 1 to 10—with 1 representing the best. Companies with a strong business profile—typically, transmission/distribution utilities—are scored 1 through 4; those facing greater competitive threats—such as power generators—would wind up with an overall business profile score of 7 to 10.)

There are no formulae for combining scores to arrive at a rating conclusion. Bear in mind that ratings represent an art as much as a science. A rating is, in the end, an opinion. Indeed, it is critical to understand that the rating process is not limited to the examination of various financial measures. Proper assessment of debt protection levels requires a broader framework, involving a thorough review of business fundamentals, including judgments about the company's competitive position and evaluation of management and its strategies. Clearly, such judgments are highly subjective; indeed, subjectivity is at the heart of every rating.

At times, a rating decision may be influenced strongly by financial measures. At other times, business risk factors may dominate. If a firm is strong in one respect and weak in another, the rating will balance the different factors. Viewed differently, the degree of a firm's business risk sets the expectations for the financial risk it can afford at any rating level. The analysis of industry characteristics and how a firm is positioned to succeed in that environment establish the financial benchmarks used in the quantitative part of the analysis *(See Ratio Guidelines on pages 56-58)*.

CORPORATE CREDIT ANALYSIS FACTORS

Business Risk
- Industry Characteristics
- Competitive Position
  - (e.g.) Marketing
  - (e.g.) Technology
  - (e.g.) Efficiency
  - (e.g.) Regulation
- Management

Financial Risk
- Financial Characteristics
- Financial Policy
- Profitability
- Capital Structure
- Cash Flow Protection
- Financial Flexibility

Industry risk

Each rating analysis begins with an assessment of the company's environment. To determine the degree of operating risk facing a participant in a given business, Standard & Poor's analyzes the dynamics of that business. This analysis focuses on the strength of industry prospects, as well as the competitive factors affecting that industry.

The many factors assessed include industry prospects for growth, stability, or decline, and the pattern of business cycles *(see Cyclicality, page 41)*. It is critical to determine vulnerability to technological change, labor unrest, or regulatory interference. Industries that have long lead times or that require a fixed plant of a specialized nature face heightened risk. The

implications of increasing competition are obviously crucial. Standard & Poor's knowledge of investment plans of the major players in any industry offers a unique vantage point from which to assess competitive prospects.

While any particular profile category can be the overriding rating consideration, the industry risk assessment goes a long way toward setting the upper limit on the rating to which any participant in the industry can aspire. Specifically, it would be hard to imagine assigning 'AA' and 'AAA' debt ratings or 'A-1+' commercial paper ratings to companies with extensive participation in industries of above-average risk, regardless of how conservative their financial posture. Examples of these industries are integrated steel makers, tire and rubber companies, homebuilders, and most of the mining sector.

Conversely, some industries are regarded favorably. They are distinguished by such traits as steady demand growth, ability to maintain margins without impairing future prospects, flexibility in the timing of capital outlays, and moderate capital intensity. Industries possessing one or more of these attributes include manufacturers of branded consumer products, drug firms, and publishing and broadcasting. Again, high marks in this category do not translate into high ratings for all industry participants, but the cushion of strong industry fundamentals provides helpful support.

The industry risk assessment also sets the stage for analyzing specific company risk factors and establishing the priority of these factors in the overall evaluation. For example, if an industry is determined to be highly competitive, careful assessment of a firm's market position is stressed. If the industry has large capital requirements, examination of cash flow adequacy assumes major importance.

Keys to success

As part of the industry analysis, key rating factors are identified: the keys to success and areas of vulnerability. A company's rating is affected crucially by its ability to achieve success and avoid pitfalls in its business.

The nature of competition is, obviously, different for different industries. Competition can be based on price, quality of product, distribution capabilities, image, product differentiation, service, or some other factor. Competition may be on a national basis, as is the case with major appliances. In other industries, such as chemicals, competition is global, and in still others, such as cement, competition is strictly regional.

The basis for competition determines which factors are analyzed for a given company. The accompanying charts highlight factors that are considered critical for airlines and electricity companies and the specific considerations that determine a company's position in each.

For any particular company, one or more factors can hold special significance, even if that factor is not common to the industry. For example, the fact that a company has only one major production facility should certainly be regarded as an area of vulnerability. Similarly, reliance on one product creates risk, even if the product is highly successful. For example, one major pharmaceutical company has reaped a financial bonanza from just two medications. The firm's debt is reasonably highly rated, given its exceptional profits and cash flow—but it would be viewed still more favorably were it not for the dependence on only two drugs (which are, after all, subject to competition and patent expiration).

Diversification factors

When a company participates in more than one business, each segment is separately analyzed. A composite is formed from these building blocks, weighting each element according to its importance to the overall organization. The potential benefits of diversification, which may not be apparent from the additive approach, are then considered.

Obviously, the truly diversified company will not have a single business segment that is dominant. One major automobile company received much attention for diversifying into aerospace and computer processing. But it never became a diversified firm, since its success was still determined substantially by one line of business.

Limited credit will be given if the various lines of business react similarly to economic cycles. For example, diversification from nickel into copper cannot be expected to stabilize performance; similar risk factors are associated with both metals.

Most critical is a company's ability to manage diverse operations. Skills and practices needed to run a business differ greatly among industries, not to mention the challenge posed by participation in several different industries. For example, a number of old-line industrial firms rushed to diversify into financial services, only to find themselves saddled with

unfamiliar businesses they had difficulty managing.

Some firms have adopted a portfolio approach to their diverse holdings. The business of buying and selling businesses is different from running operations and is analyzed differently. The ever-changing character of the company's assets typically is viewed as a negative. On the other hand, there is often an offsetting advantage: greater flexibility in raising funds if each line of business is a discrete unit that can be sold off.

Size considerations

Standard & Poor's has no minimum size criterion for any given rating level. However, size usually provides a measure of diversification and often affects competitive issues. Obviously, the need to have a broad product line or a national marketing structure is a factor in many businesses and would be a rating consideration. In this sense, sheer mass is not important; demonstrable market advantage is. Small companies also can possess the competitive benefits of dominant market positions, although that is not common.

Market share analysis often provides important insights. However, large shares are not always synonymous with competitive advantage or industry dominance. For instance, if an industry has a number of large but comparable-size participants, none may have a particular advantage or disadvantage. Conversely, if an industry is highly fragmented, even the large firms may lack pricing leadership potential. The textile industry is an example.

Still, small companies are, almost by definition, more concentrated in terms of product, number of customers, or geography. In effect, they lack some elements of diversification that can benefit larger firms. To the extent that markets and regional economies change, a broader scope of business affords protection. This consideration is balanced against the performance and prospects of a given business. In addition, lack of financial flexibility is usually an important negative factor in the case of very small firms. Adverse developments that would simply be a setback for firms with greater resources could spell the end for companies with limited access to funds.

There is a controversial notion that small, growth companies represent a better credit risk than older, declining companies. While this is intuitively appealing to some, it ignores some important considerations. Large firms have substantial staying power, even if their businesses are troubled. Their constituencies—including large numbers of employees—can influence their fates. Banks' exposure to these firms may be quite extensive, creating a reluctance to abandon them. Moreover, such firms often have accumulated a lot of peripheral assets that can be sold. In contrast, the promise of small firms can fade very quickly and their minuscule equity bases will offer scant protection, especially given the high debt burden some companies deliberately assume.

Fast growth is often subject to poor execution, even if the idea is well conceived. There is also the risk of overambitiousness. Moreover, some firms tend to continue high-risk financial policies as they aggressively pursue ever greater objectives, limiting any credit-quality improvement. There is little evidence to suggest that growth companies initially receiving speculative-grade ratings have particular upgrade potential. Many more defaulted over time than achieved investment grade. Oil exploration, retail, and high technology firms have been especially vulnerable, even though their great potential was touted at the time they first came to market.

Management evaluation

Management is assessed for its role in determining operational success and also for its risk tolerance. The first aspect is incorporated in the competitive position analysis; the second is weighed as a financial policy factor.

Subjective judgments help determine each aspect of management evaluation. Opinions formed during the meetings with senior management are as important as management's track record. While a track record may seem to offer a more objective basis for evaluation, it often is difficult to determine how results should be attributed to management's skills. The analyst must decide to what extent they are the result of good management, devoid of management influence, or achieved despite management!

Plans and policies have to be judged for their realism. How they are implemented determines the view of management consistency and credibility. Stated policies often are not followed, and the ratings will reflect skepticism unless management has established credibility. Credibility can become a critical issue when a company is faced with stress or

RATING FACTORS FOR ELECTRIC UTILITIES

Transmission and Distribution Companies

Regulation

- The nature of the rate-making structure, e.g., performance-based vs. cost-of-service
- Authorized return on equity
- Timely and consistent rate treatment
- Status of restructuring, e.g., residual obligation to provide power, which entails the purchase of electricity for resale
- FERC's evolving rules for regional transmission of organizations, independent system operators, and for-profit transcos
- Incentives to maintain existing delivery assets and invest in new assets
- Nature of distributor support that retains the status of provider of last resort

Markets

- Economic and demographic characteristics, including size and growth rates, customer mix, industrial concentrations, and cyclical volatility
- Location

Operations

- Cost, reliability, and quality of service (usually measured against various benchmarks)
- Capacity utilization
- Projected capital improvements
- Nature of diversified business operations, if any

Competitiveness

- Alternative fuel sources, such as gas and self-generation
- Location of new generation
- Potential for bypass
- Rate Structure

Generation Companies

Regulation

- Status of restructuring, e.g., posture toward recovery of stranded costs
- Nature of regulatory scheme, e.g., price establishment through power exchange or economic dispatch vs. bilateral contracts
- Uncertainty concerning FERC's evolving rules for regional transmission organizations, independent system operators, and for-profit transcos, including independence and equal access

Markets

- Customer mix and diversity
- Generating capacity vs. demand
- Economic growth prospects

Operations

- Nature of generation, i.e., peaking, intermediate, or baseload
- Production inputs, including fuel costs, fuel diversity, and labor
- Level of physical and financial hedging sophistication
- Nature of supply contracts
- Efficiency measures, such as plant capacity and availability factors and heat rates
- Technology of plants
- Asset concentration within portfolio of generating units
- Construction risk
- Possibility of environmental legislation
- Diversity of fuel sources and types
- Marketing prowess
- Access to transmission

Competitiveness

- Relative costs of production, both total and variable
- Threat from new, low-cost entrants
- Alternatives to electricity, such as natural gas, technological innovations, and remote site applications, including fuel cells and microturbines
- Plants' importance to transmission and voltage support

RATING FACTORS FOR AIRLINES

Market Share

Share of industry traffic, measured by revenue passenger miles or revenue ton miles for airlines with significant freight operations

Share of industry capacity, measured by available seat miles or available ton miles

Trend of overall market share

Membership in global alliance: strength of partners and benefits for airline being rated, regulatory environment for alliance cooperation (e.g. "antitrust immunity"), extent of and potential for cooperation within alliance

Position in Specific Markets

Geographic position of airline's hubs for handling major traffic flows; position of competing hubs of other airlines

Share of enplanements and flights at hubs

Share at major origination and destination markets; economic and demographic growth prospects of those markets

Strength of competition at hubs and in major markets served

Barriers to entry/infrastructure constraints
- Gates
- Terminal space and other ground facilities
- Air traffic control; takeoff and landing slot restrictions

Position in international markets
- Growth prospects of markets
- Treaty and regulatory barriers to entry
- Strength of competition

Revenue Generation

Utilization of capacity, measured by "load factor" (revenue passenger miles divided by available seat miles)

Pricing
- Yield (passenger revenues divided by revenue passenger miles)
- Yield adjusted for average trip length (Airlines with shorter average trips tend to have higher yields.)

Unit revenues, measured by passenger revenue per available seat mile (yield times load factor)

Effectiveness of revenue management—maximizing revenues by managing trade-off between pricing and utilization

Service reputation; ranking in measures of customer satisfaction

Nonpassenger revenues: freight, sale of frequent flyer miles, services provided to other airlines

Cost Control

Operating cost per available seat mile
- Adjusted for average trip length
- Adjusted for use of operating leases and differing depreciation accounting

Labor
- Labor cost per available seat mile
- Structure of labor contracts; existence and nature of any "B-scales" (lower pay scales for recent hires)
- Flexibility of work rules; effect on productivity
- "Scope clauses" in pilot contracts; limits on outsourcing
- Status of union contracts and negotiations; possibility of strikes
- Labor relations and morale

Fuel costs and impact of potential fuel price hikes, given fuel efficiency of fleet and nature of routes flown; fuel price hedging

Commissions, marketing, and other operating expenses; extent of "electronic distribution"

Aircraft Fleet

Number and type of aircraft in relation to current and projected needs

Status of fleet modernization program
- Average age fleet; age weighted by seats
- Fleet "commonality" (standardization)
- Fuel efficiency of fleet
- Aircraft orders and options for future deliveries
- Ability under pilot contracts to operate regional jets, through airline or its regional partners

restructuring and the analyst must decide whether to rely on management to carry out plans for restoring creditworthiness.

Organizational considerations

Standard & Poor's evaluation is sensitive to potential organizational problems. These include situations where:

- There is significant organizational reliance on an individual, especially one who may be close to retirement;
- The finance function and finance considerations do not receive high organizational recognition;
- The transition from entrepreneurial or family-bound to professional management has yet to be accomplished;
- A relatively large number of changes occur within a short period;
- The relationship between organizational structure and management strategy is unclear;
- Shareholders impose constraints on management prerogatives.

Measuring performance and risk

Having evaluated the issuer's competitive position and operating environment, the analysis proceeds to several financial categories. To reiterate: the company's business-risk profile determines the level of financial risk appropriate for any rating category. Financial risk is portrayed largely through quantitative means, particularly by using financial ratios *(guidelines and medians for key ratios for U.S. companies are found on pages 54 and 57)*. Benchmarks vary greatly by industry, and several analytical adjustments typically are required to calculate ratios for an individual company. Cross-border comparisons require additional care, given the differences in accounting conventions and local financial systems *(see discussion on international rating issues starting on page 30)*.

Accounting quality

Ratings rely on audited data, and the rating process does not entail auditing a company's financial records. Analysis of the audited financials begins with a review of accounting quality. The purpose is to determine whether ratios and statistics derived from financial statements can be used accurately to measure a company's performance and position relative to both its peer group and the larger universe of industrial or utility companies. The rating process is very much one of comparisons, so it is important to have a common frame of reference.

Accounting issues to be reviewed include:

- Consolidation basis. U.S. GAAP now requires consolidation of even nonhomogeneous operations. For analytical purposes, it is critical to separate these and evaluate each type of business in its own right;
- Income recognition. For example, percentage of completion vs. completed contract in the construction industry;
- Depreciation methods and asset lives;
- Inventory pricing methods;
- Impact of purchase accounting and treatment of goodwill;
- Employee benefits *(see discussion on page 105)*; and
- Various off-balance-sheet liabilities, from leases and project finance to defeasance and receivable sales.

To the extent possible, analytical adjustments are made to better portray reality. Although it is not always possible to completely recast a company's financial statements, it is useful to have *some* notion of the extent performance or assets are overstated or understated. At the very least, the choice of accounting alternatives can be characterized as generally conservative or liberal.

Financial policy

Standard & Poor's attaches great importance to management's philosophies and policies involving financial risk. A surprising number of companies have not given this question serious thought, much less reached strong conclusions. For many others, debt leverage (calculated without any adjustment to reported figures) is the only focal point of such policy considerations. More sophisticated business managers have thoughtful policies that recognize cash-flow parameters and the interplay between business and financial risk.

Many firms that have set goals do not have the wherewithal, discipline, or management commitment to achieve these objectives. A company's leverage goals, for example, need to be viewed in the context of its past record and the financial dynamics affecting the business. If management states, as many do, that its goal is to operate with 35% debt-to-capital, Standard & Poor's factors that into its analysis *only* to the extent it appears plausible. For example, if a company has aggressive spending plans, that

35% goal would carry little weight, unless management has committed to a specific program of asset sales, equity sales, or other actions that in a given time period would produce the desired results.

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 let the rating follow. Certainly, prudence and credit quality should be among the most important considerations, but financial policy should be consistent with the needs of the business rather than an arbitrary constraint.

If opportunities are foregone merely to avoid financial risk, the firm is making poor strategic decisions. In fact, it may be sacrificing long-term credit quality for the facade of low risk in the near term. One financial article described a company that curtailed spending expressly "to become an 'A'-rated company." As a result, "...the company's business responded poorly to an increase in market demand. Needless to say, the sought-after 'A' rating continued to elude the company."

In any event, pursuit of the highest rating attainable is not necessarily in the company's best interests. 'AAA' may be the highest rating, but that does not suggest that it is the "best" rating. Typically, a company with virtually no financial risk is not optimal as far as meeting the needs of its various constituencies. An underleveraged firm is not minimizing its cost of capital, thereby depriving its owners of potentially greater value for their investment. In this light, a corporate objective of having its debt rated 'AAA' or 'AA' is at times suspect. Whatever a company's financial track record, an analyst must be skeptical if corporate goals are implicitly irrational. A firm's "conservative financial philosophy" must be consistent with the firm's overall goals and needs.

Profitability and coverage

Profit potential is a critical determinant of credit protection. A company that generates higher operating margins and returns on capital has a greater ability to generate equity capital internally, attract capital externally, and withstand business adversity. Earnings power ultimately attests to the value of the firm's assets as well.

The more significant measures of profitability are:

- Pretax preinterest return on capital;
- Operating income as a percentage of sales; and
- Earnings on business segment assets.

While the absolute levels of ratios are important, it is equally important to focus on trends and compare these ratios with those of competitors. Various industries follow different cycles and have different earnings characteristics. Therefore, what may be considered favorable for one business may be relatively poor for another. For example, the drug industry usually generates high operating margins and high returns on capital. Defense contractors generate low operating margins, but high returns on capital. The pipeline industry has high operating margins and low returns on capital. Comparisons with a company's peers influence Standard & Poor's perception of a firm's competitive strengths and pricing flexibility.

The analysis proceeds from historical performance to projected profitability. Because a rating is an assessment of the likelihood of timely payments in the future, the evaluation emphasizes future performance. However, the rating analysis does not attempt to forecast performance precisely or to pinpoint economic cycles. Rather, the forecast analysis considers variability of expected future performance based on a range of economic and competitive scenarios.

Particularly important today are management's plans for achieving earnings growth. Can existing businesses provide satisfactory growth, especially in a low-inflation environment, and to what extent are acquisitions or divestitures necessary to achieve corporate goals? At first glance, a mature, cash-generating company offers a great deal of bondholder protection, but Standard & Poor's assumes a corporation's central focus is to augment shareholder value over the long run. In this context, a lack of indicated earnings growth potential is considered a weakness. By itself this may hinder a company's ability to attract financial and human resources. Moreover, limited internal earnings growth opportunities may lead management to pursue growth externally, implying greater business and financial risks.

Earnings are also viewed in relation to a company's burden of fixed charges. Otherwise-strong performance can be affected detrimentally by aggressive debt financing, and the opposite also is true. The two primary fixed-charge coverage ratios are:

• Earnings before interest and taxes (EBIT) coverage of interest; and
• Earnings before interest and taxes and rent (EBITR) coverage of interest plus total rents.

If preferred stock is outstanding and material, coverage ratios are calculated both including and excluding preferred dividends, to reflect the company's discretion over paying the dividend when under stress. Similarly, if interest payments can be deferred (as in zero coupon debt, income bonds, or intercompany debt supporting subsidiary preferred stock) other adjustments to the calculation help capture the firm's flexibility in making payments.

To reflect more accurately the ongoing earnings power of the firm, reported profit figures are adjusted. These adjustments remove the effect of

• LIFO liquidations,
• Foreign-exchange gains and losses,
• Litigation reserves,
• Writedowns and other nonrecurring or extraordinary gains and losses, and
• Unremitted equity earnings of a subsidiary.

Similarly, there are numerous analytical adjustments to the interest amounts. Interest that has been capitalized is added back. An interest component is computed for debt-equivalents such as operating leases and receivable sales. Amounts may be subtracted to recognize the impact of borrowings in hyperinflationary environments or borrowings to support cash investments as part of a tax arbitrage strategy. And interest associated with finance operations is segregated in accordance with the methodology spelled out on page 103.

Capital structure/leverage and asset protection

Ratios employed by Standard & Poor's to capture the degree of leverage used by a company include:

• Total debt/total debt + equity;
• Total debt + off-balance-sheet liabilities/total debt + off-balance-sheet liabilities + equity; and
• Total debt/total debt + market value of equity.

Traditional measures focusing on long-term debt have lost much of their significance, since companies rely increasingly on short-term borrowings. It is now commonplace to find permanent layers of short-term debt, which finance not only seasonal working capital but also an ongoing portion of the asset base.

What is considered "debt" and "equity" for the purpose of ratio calculation is not always so simple. In the case of hybrid securities, the analysis is based on their features—*not* the accounting or the nomenclature *(see discussion of "equity credit" on page 89)*. Pension and retiree health obligations are similar to debt in many respects. Their treatment is explained on page 105.

Indeed, not all subtleties and complexities lend themselves to ratio analysis. Original issue discount debt, such as zero coupon debt, is included at the accreted value. However, since there is no sinking fund provision, the debt increases with time—creating a moving target. (The need, eventually, to refinance this growing amount represents another risk.) In the case of convertible debt, it is somewhat presumptuous to predict whether and when conversion will occur, making it difficult to reflect the real risk profile in ratio form.

A company's asset mix is a critical determinant of the appropriate leverage for a given level of risk. Assets with stable cash flow or market values justify greater use of debt financing than those with clouded marketability. For example, grain or tobacco inventory would be viewed positively, compared with apparel or electronics inventory; transportation equipment is viewed more favorably than other equipment, given its suitability for use by other companies.

Accordingly, if a firm operates different businesses, Standard & Poor's believes it is critical to analyze each type of business and asset class in its own right. While FASB and IAS now require consolidation of nonhomogenous business units, Standard & Poor's analyzes each separately. This is the basis for Standard & Poor's methodology for analyzing captive finance companies *(see page 102)*. Similarly, if a company holds significant amounts of excess cash or investments, ratios may be calculated on a "net debt" basis. This approach is used in the case of cash-rich pharmaceutical firms that enjoy tax arbitrage opportunities with respect to these cash holdings.

Asset valuation

Knowing the true values to assign a company's assets is key to the analysis. Leverage as reported in the financial statements is meaningless if assets are materially undervalued or overvalued relative to book value. Standard & Poor's considers the profitability of an asset as an appro-

priate basis for determining its economic value. Market values of a company's assets or independent asset appraisals can offer additional insights. However, there are shortcomings in these methods of valuation (just as there are with historical cost accounting) that prevent reliance on any single measure. Similarly, ratios using the market value of a company's equity in calculations of leverage are given limited weight as analytical tools. The stock market emphasizes growth prospects and has a short time horizon; it is influenced by changes in alternative investment opportunities and can be very volatile. A company's ability to service its debt is not affected directly by such factors.

The analytical challenge of which values to use is especially evident in the case of merged and acquired companies. Accounting standards allow the acquired company's assets and equity to be written up to reflect the acquisition price, but the revalued assets have the same earning power as before; they cannot support more debt just because a different number is used to record their value! Right after the transaction, the analysis can take these factors into account, but down the road the picture becomes muddied. Standard & Poor's attempts to normalize for purchase accounting, but the ability to relate to pre-acquisition financial statements and to make comparisons with peer companies is limited.

Presence of a material goodwill account indicates the impact of acquisitions and purchase accounting on a firm's equity base. Intangible assets are no less "valuable" than tangible ones. But comparisons are still distorted, since other companies cannot record their own valuable business intangibles, those that have been developed instead of acquired. This alone requires some analytical adjustment when measuring leverage. In addition, analysts are entitled to be more skeptical about earning prospects that rely on turnaround strategies or "synergistic" mergers.

Off-balance-sheet financing

Off-balance-sheet items factored into the leverage analysis include the following:

- Operating leases;
- Debt of joint ventures and unconsolidated subsidiaries;
- Guarantees;
- Take-or-pay contracts and obligations under throughput and deficiency agreements;
- Receivables that have been factored, transferred, or securitized; and
- Contingent liabilities, such as potential legal judgments or lawsuit settlements.

Various methodologies are used to determine the proper adjustment value for each off-balance-sheet item. In some cases, the adjustment is straightforward. For example, the amount of guaranteed debt can simply be added to the guarantor's liabilities. Other adjustments are more complex or less precise.

Nonrecourse debt of a joint venture may be attributed to the parent companies, especially if they have a strategic tie to the operation. The analysis may burden one parent with a disproportionate amount of the debt if that parent has the greater strategic interest or operating control or its ability to service the joint-venture debt is greater. Other considerations that affect a company's willingness to walk away from such debt—and other nonrecourse debt—include shared banking relationships and common country location. In some instances the debt may be so large in relation to the owner's investment that the incentives to support the debt are minimized. In virtually all cases, though, the parent would likely invest additional amounts before deciding to abandon the venture. Accordingly, adjustments would be made to reflect the owner's current and projected investment, even if the venture's debt were not added to the parent's balance sheet. *(See page 98.)*

In the case of contingencies, estimates are developed. Insurance coverage is estimated, and a present value is calculated if the payments will stretch over many years. The resulting amount is viewed as a corporate liability from an analytical perspective.

The sale or securitization of accounts receivable represents a form of off-balance-sheet financing. If used to supplant other debt, the impact on credit quality is neutral. (There can be some incremental benefit to the extent that the company has expanded access to capital, and this financing may be lower in cost. However, there may also be an offset in the higher cost of unsecured financing.) For ratio calculations, Standard & Poor's adds back the amount of receivables and a like amount of debt. This eliminates the distorting, cosmetic effect of utilizing an off-balance-sheet technique and allows better comparison with other firms that have chosen other avenues of financing. Similarly, if a firm

uses proceeds from receivables sales to invest in riskier assets—and not to reduce other debt—the adjustment will reveal an increase in financial risk.

The debt-equivalent value of operating leases is determined by calculating the present value of minimum operating lease obligations as reported in the annual report's footnotes. The lease amount beyond five years is assumed to mature at a rate approximating the minimum payment due in year five.

The variety of lease types may require the analyst to obtain additional information or use estimates to evaluate lease obligations. This is needed whenever lease terms are shorter than the assets' expected economic lives. For example, retailers report only the first period of a lease written with an initial period and several renewal options over a long term. Another limitation develops when a portion of the lease payment is contingent, e.g., a percentage of sales, as is often the case in the retailing industry.

(Traditionally, operating leases were recognized by the "factor method": annual lease expense is multiplied by a factor that reflects the average life of the company's leased assets. This method is an attempt to capitalize the asset, rather than just the use of the asset for the lease period. However, the method can overstate the asset to be capitalized by failing to recognize asset use over the course of the lease. It also is too arbitrary to be realistic.)

Preferred stock

Preferred stocks can qualify for treatment as equity or be viewed as debt—or something between debt and equity—depending on their features and the circumstances. The degree of equity credit for various preferreds is discussed on page 95. Preferred stocks that have a maturity receive diminishing equity credit as they progress toward maturity.

A preferred that the analyst believes will be eventually refinanced with debt is viewed as a debt-equivalent, not equity, all along. Auction preferreds, for example, are "perpetual" on the surface. However, they often represent merely a temporary debt alternative for companies that are not current taxpayers—until they once again can benefit from tax deductibility of interest expense. Moreover, the holders of these preferreds would pressure for a redemption in the event of a failed auction or even a rating downgrade.

Redeemable preferred stock issues may also be refinanced with debt once an issuer becomes a taxpayer. Preferreds that can be exchanged for debt at the company's option also may be viewed as debt in anticipation of the exchange. However, the analysis would also take into account any offsetting positives associated with the change in tax status. Often the trigger prompting an exchange or redemption would be improved profitability. Then, the added debt in the capital structure would not necessarily imply lower credit quality. The implications are different for many issuers that do not pay taxes for various other reasons, including availability of tax-loss carry-forwards or foreign tax credits. For them, a change in taxpaying status is not associated with better profitability, while the incentive to turn the preferred into debt is identical.

In the same vein, sinking fund preferreds are less equity-like. The sinking fund requirements themselves are of a fixed, debt-like nature. Moreover, they are usually met through debt issuance, which results in the sinking fund preferred being just the precursor of debt. It would be misleading to view sinking fund preferreds, particularly that portion coming due in the near to intermediate term, as equity, only to have each payment convert to debt on the sinking fund payment date. Accordingly, Standard & Poor's views at least the portion of the issuer's sinking fund preferreds due within the next five years as debt.

Cash flow adequacy

Interest or principal payments cannot be serviced out of earnings, which is just an accounting concept; payment has to be made with cash. Although there is usually a strong relationship between cash flow and profitability, many transactions and accounting entries affect one and not the other. Analysis of cash flow patterns can reveal a level of debt-servicing capability that is either stronger or weaker than might be apparent from earnings.

Cash flow analysis is the single most critical aspect of all credit rating decisions. It takes on added importance for speculative-grade issuers. While companies with investment-grade ratings generally have ready access to external cash to cover temporary shortfalls, junk-bond issuers lack this degree of flexibility and have fewer alternatives to internally generated cash for servicing debt.

Cash flow ratios

Ratios show the relationship of cash flow to debt and debt service, and also to the firm's needs. Since there are calls on cash other than repaying debt, it is important to know the extent to which those requirements will allow cash to be used for debt service or, alternatively, lead to greater need for borrowing.

Some of the specific ratios considered are:

- Funds from operations/total debt (adjusted for off-balance-sheet liabilities);
- EBITDA/interest;
- Free operating cash flow + interest/interest;
- Free operating cash flow + interest/interest + annual principal repayment obligation (debt service coverage);
- Total debt/discretionary cash flow (debt payback period);
- Funds from operations/capital spending requirements, and
- Capital expenditures/capital maintenance.

Where long-term viability is more assured (i.e., higher in the rating spectrum) there can be greater emphasis on the level of funds from operations and its relation to total debt burden. These measures clearly differentiate between levels of protection over time. Focusing on debt service coverage and free cash flow becomes more critical in the analysis of a weaker company. Speculative-grade issuers typically face near-term vulnerabilities, which are better measured by free cash flow ratios.

Interpretation of these ratios is not always simple; higher values can sometimes indicate problems rather than strength. A company serving a low-growth or declining market may exhibit relatively strong free cash flow, owing to minimal fixed and working capital needs. Growth companies, in comparison, often exhibit thin or even negative free cash flow because investment is needed to support growth. For the low-growth company, credit

MEASURING CASH FLOW

Discussions about cash flow often suffer from lack of uniform definition of terms. The table illustrates Standard & Poor's terminology with respect to specific cash flow concepts. At the top is the item from the funds flow statement usually labeled "funds from operations" (FFO) or "working capital from operations." This quantity is net income adjusted for depreciation and other noncash debits and credits factored into it. Back out the changes in working capital investment to arrive at "operating cash flow."

Next, capital expenditures and cash dividends are subtracted out to arrive at "free operating cash flow" and "discretionary cash flow," respectively. Finally, cost of acquisitions is subtracted from the running total, proceeds from asset disposals added, and other miscellaneous sources and uses of cash netted together. "Prefinancing cash flow" is the end result of these computations, which represents the extent to which company cash flow from all internal sources has been sufficient to cover all internal needs.

The bottom part of the table reconciles prefinancing cash flow to various categories of external financing and changes in the company's own cash balance. In the example, XYZ Inc. experienced a $35.7 million cash shortfall in year one, which had to be met with a combination of additional borrowings and a drawdown of its own cash.

Cash flow summary: XYZ Corp.

(Mil. $)	Year one	Year two
Funds from operations (FFO)	18.58	22.34
Dec. (inc.) in noncash current assets	(33.12)	1.05
Inc. (dec.) in nondebt current liabilities	15.07	(12.61)
Operating cash flow	0.52	10.78
(Capital expenditures)	(11.06)	(9.74)
Free operating cash flow	(10.53)	1.04
(Cash dividends)	(4.45)	(5.14)
Discretionary cash flow	(14.98)	(4.09)
(Acquisitions)	(21.00)	0.00
Asset disposals	0.73	0.23
Net other sources (uses) of cash	(0.44)	(0.09)
Prefinancing cash flow	(35.70)	(3.95)
Inc. (dec.) in short-term debt	23.00	0.00
Inc. (dec.) in long-term debt	6.12	13.02
Net sale (repurchase) of equity	0.32	(7.07)
Dec. (inc.) in cash and securities	6.25	(2.00)
	35.70	3.95

analysis weighs the positives of strong current cash flow against the danger that this high level of protection might not be sustainable. For the high-growth company, the problem is just the opposite: weighing the negatives of a current cash deficit against prospects of enhanced protection once current investment begins yielding cash benefits. There is no simple correlation between creditworthiness and the level of current cash flow.

The need for capital

Analysis of cash flow in relation to capital requirements begins with an examination of a company's capital needs, including both working and fixed capital. While this analysis is performed for all debt issuers, it is critically important for fixed capital-intensive firms and growth companies. Companies seeking working capital often are able to finance a significant portion of current assets through trade credit. However, rapidly growing companies typically experience a build-up in receivables and inventories that cannot be financed internally or through trade credit.

Improved working-capital management techniques have greatly reduced the investment that might otherwise have been required. This makes it difficult to base expectations on extrapolating recent trends. In any event, improved turnover experience would not be a reason to project continuation of such a trend to yet better levels.

Because Standard & Poor's evaluates companies as ongoing enterprises, the analysis assumes that firms will provide funds continually to maintain capital investments as modern, efficient assets. Cash flow adequacy is viewed from the standpoint of a company's ability to finance capital-maintenance requirements internally, as well as its ability to finance capital additions. It is difficult to quantify the requirements for capital maintenance unless data are provided by the company.

An important dimension of cash flow adequacy is the extent of a company's flexibility to alter the timing of its capital requirements. Expansions are typically discretionary. However, large plants with long lead times usually involve, somewhere along the way, a commitment to complete the project.

There are companies with cash flow adequate to the needs of the existing business, but that are known to be acquisition-minded. Their choice of acquisition as an avenue for growth means that this activity must also be anticipated in the credit analysis. Management's stated acquisition goals and past takeover bids, including those that were not consummated, provide a basis for judging prospects for future acquisitions.

Financial flexibility

The previous assessment of financial factors (profitability, capital structure, cash flow) are combined to arrive at an overall view of financial health. In addition, sundry considerations that do not fit in other categories are examined, including serious legal problems, lack of insurance coverage, or restrictive covenants in loan agreements that place the firm at the mercy of its bankers.

An analytical task covered at this point is the evaluation of a company's options under stress. The potential impact of various contingencies is considered, along with a firm's contingency plans. Access to various capital markets, affiliations with other entities, and ability to sell assets are important factors.

Flexibility can be jeopardized when a firm is overly reliant on bank borrowings or commercial paper. Reliance on commercial paper without adequate backup facilities is a big negative. An unusually short maturity schedule for long-term debt and limited-life preferred stock also is a negative. Access to various capital markets can then become an important factor. In general, a company's experience with different financial instruments and capital markets gives management alternatives if conditions in a particular financial market suddenly sour. Company size and its financing needs can play a role in whether it can raise funds in the public debt markets. Similarly, a firm's role in the national economy—and this is particularly true outside the U.S.—can enhance its access to bank and public funds.

Access to the common stock market may be primarily a question of management's willingness to accept dilution of earnings per share, rather than a question of whether funds are available. (However, in some countries, including Japan and Germany, equity markets may not be so accessible.) When a new common stock offering is projected as part of a company's financing plan, Standard & Poor's

tries to measure management's commitment to this plan, and its sensitivity to changes in share price.

As going concerns, companies should not be expected to repay debt by liquidating operations. Clearly, there is little benefit in selling natural resource properties or manufacturing facilities if these must be replaced in a few years. Nonetheless, a company's ability to generate cash through asset disposals enhances its financial flexibility.

Pension obligations, environmental liabilities, and serious legal problems restrict flexibility, apart from the obligations' direct financial implications. A large pension burden can hinder a company's ability to sell assets, because potential buyers will be reluctant to assume the liability, or to close excess, inefficient, and costly manufacturing facilities, which might require the immediate recognition of future pension obligations and result in a charge to equity.

When there is a major lawsuit against the firm, suppliers or customers may be reluctant to continue doing business, and the company's access to capital may also be impaired, at least temporarily.

The Global Perspective

A global rating scale imposes a consistent, common discipline on all cross-border analysis, while still allowing the assessment of an issuer in its local context. Standard & Poor's weighs the diverse national considerations, but expresses its ratings on a single scale so that debtholders can compare issues of equivalent credit quality.

International corporate ratings are conducted by teams that combine knowledge of the country of domicile with industry expertise. The analysis of corporates around the globe all follow the same rating methodology (described in the previous section): Industry risk and the company's competitive position are evaluated in conjunction with the firm's financial profile and policies. This fundamental analysis is performed with an appreciation of relevant industry and financial characteristics of a specific country or region. If the regional environment poses additional risks to corporates operating there, that too is incorporated in the analysis. *(The section starting on page 34 elaborates on country economic and political factors that pertain in emerging markets.)*

The analysis is conducted based on the issuer's financial statements prepared in accordance with the prevailing local standard—as long as these meet international standards and are audited by a reputable firm. In some emerging markets it is critical to resolve in advance what level of disclosure will be available—at the time of the rating and on an ongoing basis (to allow appropriate surveillance.)

Business risk

Business risk analysis entails the assessment of an issuer's economic, operational, and competitive environment. The analysis of corporates of differing nationalities calls for an appreciation of this environment for an issuer's specific geographical and industrial mix. Demand and supply factors, both domestic and worldwide, are assessed. Industries where competition takes place on a local basis, such as retailing, are viewed differently than those which are exposed to global market forces, such as semiconductors or energy. Other industries, such as automobiles, face a combination of global and regional market considerations. Industry risk varies from region to region.

In reviewing companies in export-oriented countries, emphasis is placed on a firm's ability to withstand local currency appreciation and the country's sentiments toward trade protectionism. Japanese manufacturers, for example, were challenged in the mid-1980s and again in the mid-1990s by the strong appreciation of the yen relative to the dollar. Labor conditions can also differ internationally. Where labor costs are high, an industrial company's cost structure can impair its international competitive position. Differing social attitudes and legal restrictions regarding labor make headcount reductions or other forms of industrial rationalization more difficult in certain countries.

The role of regulation and legislation, actual and potential, must also be considered. In Europe, a growing number of industries are experiencing challenges to traditional arrangements stemming from new directives from the European Economic Commission.

Financial risk

Key aspects of financial risk assessed by Standard & Poor's include earnings protection, cash flow adequacy, asset quality, use of debt leverage, and financial flexibility. It is a challenge to interpret and compare financial measures that are derived from differing accounting practices. For example, some systems use historical cost and others use current, or inflated, cost to value assets.

The analyst begins by assessing company performance based on its own accounting framework. Adjustments are made to enable comparisons. Standard & Poor's does not translate a company's financial accounts to a

U.S. GAAP framework (nor does it ask companies to do so.) By understanding the features of each accounting system, analysts seek out differences that materially affect the way a company operating under any reporting system compares with that of its international peer group.

Endeavoring to adjust measurements of international companies to common denominators, the analysis focuses on "real" stocks and flows, namely, levels of debt, cash, and cash flow. There is less emphasis on abstract measures, such as shareholders' equity and reported earnings. Although earnings and net worth have important economic meaning if measured consistently and responsibly, this meaning is often blurred in a cross-border context. For example, differing depreciation or asset revaluation policies can result in significant distortions. In addition, profitability norms differ on an international basis. A company generating relatively low returns on permanent capital in a country with low interest rates perhaps should be viewed more favorably than a similar company reporting higher returns in a higher interest rate environment.

Financial parameters that are increasingly viewed as relevant and reliable are coverage of fixed financial charges by cash flow and operating cash flow relative to total debt. The traditional measure of debt to capital is no longer weighted as heavily. In any event, ratios of corporates outside the U.S. are not directly comparable with median statistics published for U.S. industrials.

Balance-sheet distortion

Treatment of goodwill offers an example of balance-sheet distortion. In some countries, companies write off goodwill at the outset of an acquisition, whereas companies in other parts of the world do not. U.K. companies tended to write off goodwill, that is, until recent changes in their accounting procedures. The result is that U.K. companies tend to have capital structures that look weaker and earnings that look better than those of competitors from countries that capitalize goodwill and amortize it over time. To adjust, the analyst may add back goodwill to shareholders' funds and make a qualitative or quantitative adjustment for goodwill amortization in analyzing a U.K. company.

Asset valuation practices also differ from country to country, resulting in differences in both a company's reported equity base and its depreciation expense. There is no easy way to compare companies that revalue their assets with those that do not. Rather, Standard & Poor's recognizes that, for all companies, reported asset values often differ from market values. In discussions with management, Standard & Poor's analysts endeavor to gain an appreciation of the realizable values of a company's assets under reasonably conservative assumptions.

Net debt

In many countries, notably in Japan and Europe, local practice is to maintain a high level of debt while holding a large portfolio of cash and marketable securities. Many companies manage their finances on a net debt basis. In these situations, Standard & Poor's focuses on net interest coverage, cash flow to net debt, and net debt to capital. When a company consistently demonstrates such excess liquidity, interest income may be offset against interest expense in looking at overall financial expenses. Net debt leverage is similarly calculated by netting out excess liquidity from short-term borrowings. Each situation is analyzed on a case-by-case basis, subject to additional information regarding a company's liquidity position, normal working cash needs, nature of short-term borrowings, and funding philosophy. Funds earmarked for future use, such as an acquisition or a capital project, are not netted out.

In some countries it is not uncommon for industrial companies to establish their treasury operations as a profit center. In Japan, for example, the term "zaiteku financing" refers to the practice of generating profits through arbitrage and other financial-market transactions. If financial position-taking comprises a material part of a company's aggregate earnings, Standard & Poor's segregates those earnings to assess the profitability of the core business. Standard & Poor's may also view with skepticism the ability to realize such profits on a sustained basis and may treat them like nonrecurring gains.

Earnings differences

Shareholder pressures and accounting standards in certain countries—such as the U.S.—can result in companies seeking to maximize profits on a quarter-to-quarter or short-term basis. In other regions—aided by local tax reg-

ulation—it is normal practice to take provisions against earnings in good times to provide a cushion against downturns, resulting in a long run "smoothing" of reported profits. Given local accounting standards, it is not rare to see a Swiss or German company vaguely report "other income" or "other expenses," which are largely provisions or provision reversals, as the largest line items in a profit and loss account. In meetings with management, Standard & Poor's discusses provisioning and depreciation practices to see to what extent a company employs noncash charges to reduce or bolster earnings. Credit analysis focuses on operating performance and cash flow, not financial reports distorted by accounting techniques.

Contingent liabilities

Consideration of contingent liabilities also varies internationally. Off-balance-sheet obligations can often be significant and subject to differing methods of calculation. For example, the practice of factoring receivables with recourse back to the company is common in Japan. While some accounting systems treat this practice as a form of debt financing, Japanese companies simply report it as a contingency.

Pensions are handled very differently in different countries. For example, U.S. firms explicitly reflect the pension asset/liability on their balance sheet, while German firms do not. Standard & Poor's adds in any pension obligation when calculating ratios for German firms, to incorporate a consistent view of these liabilities. Other forms of contingent liabilities, such as implicit financial support to nonconsolidated affiliated companies or projects, are also common, and are factored into the analysis.

Other national and regional factors

Many international corporate issuers benefit from their status within the country or region of domicile. This is particularly true for corporates with significant state ownership. Other local factors that might affect an issuer's financial flexibility include access to local banks and capital markets.

State ownership

Without a guarantee or other form of formal support arrangement, a state-owned corporate issuer does not intrinsically carry the same level of credit risk as its sovereign owner. Nevertheless, state ownership can bolster a company's credit profile through implicit support. Government support can take the form of facilitated access to external sources of capital or, in extreme cases, direct financial infusions.

The link between government and industry differs from country to country and, even within a country, from firm to firm. The analysis begins by considering the state's historical relationship with industry, including the degree to which governmental financial aid has been used to support state-owned firms in the past. However, it is important to anticipate potential changes in historical arrangements. For example, Economic Commission competition has the potential to inhibit the ability of member states to grant economic support freely to industries operating in competitive sectors. In many countries, the trend of late has been toward forcing government-owned entities to operate in a more self-sufficient manner—dubbed "corporatization"—and withdrawing state support.

The analyst considers the strategic importance of the firm to the country of domicile. Certain state-owned firms provide a vital service or technology, often in fields relating to defense, energy, telecommunications, or electronics. Such firms may be perceived to serve national interests more than firms engaged in more basic industries. Also considered is a firm's economic importance—in terms of employment, foreign-exchange generation, and local investment. Standard & Poor's meets with officials of sovereign governments to ascertain their view of a firm's strategic importance and potential sovereign support for that issuer.

Analysis of an issuer on a stand-alone basis allows the rating to reflect both the likelihood of the issuer needing to seek external state support and the likelihood of receiving such support. Wherever a rating is notably higher than it would have been on a stand-alone basis, strong implicit ties to the sovereign state have been confirmed in meetings with government officials.

Local ownership blocks

Concentration of ownership, resulting in companies with cross shareholdings or common parents, exists in several countries. Japan and Korea, for example, have numerous industrial groupings that combine companies across several industrial sectors. In Canada, Sweden,

Latin America, and Southeast Asia large networks of family holdings are found.

There are both positive and negative implications of group affiliation. In many cases, a company may benefit from operating relationships or greater access to financing. Conversely, a company's group affiliation could bring responsibility for providing support to weaker group companies. Standard & Poor's assesses whether constraints on group influence, such as an external minority interest position, justify rating an issuer on a standalone basis. If not, the analysis attempts to incorporate the economic and financial trends in the issuer's affiliate group as well.

Access to local sources of capital

An issuer's standing within its home financial community is also considered. Large issuers in a relatively small country are often in a favorable position to attract financing from that country's banking system. Access to ready bank financing may be enhanced by cross shareholdings between a bank and an industrial firm or the development over time of a special relationship with one or more banks. At the same time, certain issuers benefit from recognition and status within local capital markets. While access to public debt and equity cannot be assumed, particularly in times of financial stress, prominence within local markets broadens a firm's financial options. One way to determine how well a company might compete for capital is by comparing its performance to local peers in terms of local accounting and financial norms.

LOCAL CURRENCY CREDIT RATING:

A current opinion of an obligor's overall capacity to generate sufficient local currency resources to meet its financial obligations (both foreign and local currency), absent the risk of direct sovereign intervention that may constrain payment of foreign currency debt. Local currency credit ratings are provided on Standard & Poor's global scale or on separate domestic scales, and they may take the form of either issuer or specific issue credit ratings.

Country or economic risk considerations pertain to the impact of government policies on the obligor's business and financial environment, including factors such as the exchange rate, interest rates, inflation, labor market conditions, taxation, regulation, and infrastructure. However, the opinion does not address transfer and other risks related to direct sovereign intervention to prevent the timely servicing of cross-border obligations.

FOREIGN CURRENCY CREDIT RATING:

A current opinion of an obligor's overall capacity to met its foreign-currency-denominated financial obligations. It may take the form of either an issuer or an issue credit rating. As in the case of local currency credit ratings, a foreign currency credit opinion on Standard & Poor's global scale is based on the obligor's individual credit characteristics, including the influence of country or economic risk factors. However, unlike local currency ratings, a foreign currency credit rating includes transfer and other risks related to sovereign actions that may directly affect access to the foreign exchange needed for timely servicing of the rated obligation.

Transfer and other direct sovereign risks addressed in such ratings include the likelihood of foreign-exchange controls and the imposition of other restrictions on the repayment of foreign debt.

Country Risk: Emerging Markets

Standard & Poor's rating criteria has always emphasized an appreciation of relevant local characteristics. In emerging markets, country risk takes on added importance. Outlined below are examples of various country-specific factors, which pertain to every aspect of corporate analysis.

The degree of concern to attribute to local economic/political risk factors is a function of the likelihood of their occurring. Sovereign ratings provide much insight into the perceived likelihood of these risks coming into play.

To acheive a local currency corporate rating higher than the sovereign foreign currency rating would mean that the corporate can service its debts (not just survive as an ongoing concern) even under a scenario so severe—in terms of inflation, currency devaluation, and fiscal crisis—that it causes the government to default on its foreign currency debt. And to be higher-rated than the sovereign local currency rating means that the corporate can continue to service its debt even under a scenario so severe—in terms of financial crisis, banking system collapse, political unrest, or even anarchy—that it causes the government to default on its local currency debt.

History shows us that some companies indeed have managed to honor their obligations even under such stressful circumstances. But these instances are clearly the exception to the rule, as all companies are extensively affected by country factors. Nonetheless, companies that mitigate these specific risks can be rated higher than the sovereign, since their risk of default may be lower. Even for such companies, there would normally be a limit on how far above the sovereign the corporate rating could go, considering how difficult it is to divine in advance how things will play out in crises. And the further away a country is from default the more speculative such an undertaking would be. (In the typical case, the combination of ordinary corporate risks with the potential for problems associated with a risky country environment add up to a lower rating than the government's—the most creditworthy entity in that country!)

(Separately, there is the risk of direct government intervention—which is particularly germane to foreign currency ratings. That is discussed on page 37.)

Business risk factors

Macroeconomic volatility. Does the country's economic track record suggest high volatility in the macroenvironment? This may compound the constraint on credit quality typically associated with cyclical industries, since they become even more cyclical, and may experience stronger "booms" and "busts."

Access to imported raw materials. Is the company heavily dependent on imported supplies, and could the company's operations therefore be interrupted if foreign-exchange controls are imposed by the sovereign?

Exchange-rate risk. Is the exchange rate subject to significant volatility, which could compress margins relative to global peers and/or affect demand for products?

Government regulation. Is there a risk of the government "changing the rules of the game," through import/export restrictions, direct intervention in service quality or levels, redefining boundaries of competition such as service areas, altering existing barriers to entry, changing subsidies, or changing antitrust legislation? For extractive industries, what is the risk of government contract renegotiation or nationalization? Are environmental regulations expected to tighten significantly; are local lobbying groups gaining political clout in this respect?

Taxes/royalties/duties. Does the company or its key investments enjoy tax subsidies or royalty arrangements that have renegotiation risk at the federal or regional level? Does the government have a history of micro-managing the cur-

rent account balance through changing taxes or duties on imports/exports/foreign borrowings?

Legal issues. What is the transparency of the legal system? Does the type of legal system (common vs. civil vs. Islamic) create differences in contract risks or treatment of creditor rights, particularly with regard to collateral and workout/bankruptcy situations?

Labor issues. What is the potential for strikes? Is there inflexibility of regulations which may make firing workers an unrealistic or expensive option?

Infrastructure problems. Are there potential bottlenecks, poor transport, high-cost/inefficient port services? Is there a need to supply own electricity or other basic services/infrastructure?

Changing tariff barriers/trade blocs/subsidies. Are domestic companies protected by tariffs or other industry subsidies that are likely to drop as governments liberalize their external trade regulations? Has/will the country join a local trade bloc, which could immediately drop tariffs on imports from members?

Corruption issues. Is corruption an issue in terms of raising the cost of business or creating uncertainty about maintaining a "level playing field" for business?

Terrorism. Are there risks of attacks on the companies facilities, kidnapping of key employees? How has the company mitigated these risks?

Industry structure/operating environment. Industry characteristics may be favorable or unfavorable relative to global peers. For example, the cement industry in Mexico is highly concentrated among two or three large players, versus a fiercely competitive and fragmented U.S. market. Growth prospects for consumer products or new technologies and services can offer tremendous opportunities, by tracking expected population growth or increasing per capita incomes, which may be offset by other risks. For example, demand for cellular telephones in many emerging markets that are underserved is exploding, yet there are still limitations due to relatively low per capita incomes and changing regulations, which may allow new forms of competition.

Financial risk factors

Financial policy:

Disclosure/local accounting standards issues. Does the company provide consolidated financial statements? The lack of consolidated statements, which may not be required by local regulatory/accounting standards, can hinder the analyst's ability to assess overall cash flow generation and debt service coverage. Lack of segment information may make it difficult to analyze properly profitability trends or project performance. Changes in overall accounting presentation, for example eliminating inflation accounting without requiring restatement of prior years, makes trend comparisons meaningless or difficult. Obtaining timely financial statement reporting may be an issue.

Foreign-exchange risks. Does the company hedge foreign-exchange risks, to the extent it is within its control to do so? Does the company show a propensity to speculate with financial arbitrage opportunities? (For example, does the company borrow in U.S. dollars to invest in high interest rate local currency instruments, exposing itself to devaluation risk?)

Family/group ownership issues. If the issuer is part of a conglomerate or family-controlled group of companies, is the company's financial policy dictated by the group, and are there potential weaknesses at other group companies that could negatively affect the issuer? Conversely, strong group ownership and support can enhance creditworthiness.

Profitability/cash flow:

Potential price controls. These are particularly a threat for basic local goods or services, such as telephone/electric services, or gasoline sales. At times of spiraling inflation (a risk captured in the sovereign foreign currency rating), governments often try to assuage consumers by controlling prices on highly visible goods or services, and under severe stress may freeze all prices in an effort to control inflation.

Inflation/currency fluctuation risk. Where existing or potential high/accelerating inflation is an issue, does the company have the pricing flexibility, systems, and know-how to keep revenues increasing in-line with or ahead of costs? Will import prices of supplies be affected by devaluation? How well matched, by currency, are revenues and costs? Does a mismatch expose the company to devaluation or, for exporters, currency appreciation risk, which can lead to sustained reductions in profitability?

Restricted access to subsidiary cash flow. Is access to cash flows of foreign subsidiaries constrained by potential transfer/convertibility risk?

Capital structure/financial flexibility:

Inflation accounting. Does local accounting tend to overstate fixed asset values, which leads to understated or noncomparable leverage ratios? As a consequence of overstated fixed asset values, high depreciation charges may lead to relatively understated earnings.

Devaluation risk. Does the currency of debt obligations expose the company to devaluation risk? How well matched by currency are revenues versus debt? Companies with local currency revenue stream and dollar-denominated debt see their earnings power severely hurt relative to debt service when the government devalues the currency. While local inflation eventually may allow companies to raise prices enough to compensate, this process generally takes time, as weak local market conditions or price controls limit price flexibility.

Access to capital. This is often a key constraint for emerging market issuers, which broadly penalizes their credit quality relative to those of firms in developed markets. Even the strongest emerging market private-sector issuers have had difficulties accessing local or international capital markets during periods of stress. Thin domestic capital markets prevent companies from accessing local markets at reasonable rates as well; at times of stress, the local banking system would be suffering illiquidity due to high capital flight. A weak or poorly regulated local banking system can introduce additional volatility. Moreover, Latin American-based companies typically do not have access to committed credit lines.

Debt maturity structure. For emerging market issuers, concentration in short-term debt, whether dollar- or local-currency denominated, exposes the company to critical rollover risk.

Local dividend payout requirements. Do the requirements make dividends more like a fixed cost? In Chile, public companies must pay out a minimum 30% of net income as dividends, while Brazil has a 25% minimum requirement. On the other hand, this explicit link of payments to profits gives companies more flexibility to lower dividends when profits decrease.

Liquidity restrictions. Is the company's liquid asset position held in local government bonds, local banks, or local equities, and will the issuer have access to these assets at times of stress on the sovereign. For example, local bank deposit freezes accompanied the sovereign stress scenarios in Ecuador in 1998/1999 and in Argentina in 2002.

Sovereign Risk

Sovereign credit risk is always a key consideration in the assessment of the credit standing of banks 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.

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 nonsovereign borrowers most often are at, or below, 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, geographic diversification or support by an external parent tends to add to the overall creditworthiness of a borrower and to lessen its exposure to sovereign action. Also, 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 most international debt issuers, the sovereign risk factor remains an extremely important consideration in the assignment of overall creditworthiness.

From 1975-1995, Standard & Poor's has documented 69 cases of sovereign default on either bond or bank debt. Of those defaulting countries where there was significant private-sector external debt outstanding at the time, private-sector borrowers defaulted in 68% of the cases.

The key elements to consider are:

- The economic, business, and social environments that influence both the sovereign's own rating and those of issuers domiciled there. (Refer to previous section.)
- The ways in which a sovereign can directly or indirectly intervene to affect the ability of an entity 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, intervention, 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 sovereign's 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. Such constraint can take many forms. During 2002, for example, the Argentinean government rationed

the availability of foreign exchange to private-sector entities to the point that some of these entities defaulted on foreign currency debt obligations, despite many of these same firms having sufficient funds to meet these obligations in a timely manner if access to foreign exchange had been possible.

However, sovereign governments do not necessarily treat all types of debt obligations equally. In the past, even in situations where the sovereign itself was in default on some of its debt, permission has been granted for certain obligations to be met on a timely basis. Trade credits are often distinguished from capital market instruments. In several instances in the 1980s, bond debt issued by private Latin American entities continued to be serviced even while bank loans were being rescheduled, although at that time bond debt was relatively low. With bond debt increasing as a proportion of the total, future situations could be quite different. Standard & Poor's expects that sovereigns will continue to discriminate among the wide range of issues in the future, permitting some to proceed while constraining others. Therefore, each obligation must be analyzed on its own merits in the rating process and the likely government action with respect to that type of obligation addressed.

A sovereign government under severe economic or financial pressure seeking to retain valued foreign currency reserves in the country, and which may not be able to 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.

The past record of a particular sovereign can indicate the potential for imposition of controls in the future. Some sovereigns have displayed much more restraint in applying controls to private capital movements than others, and such a positive track record is incorporated into the assessment of both the sovereign itself and entities domiciled in that country. In addition, different types of obligations may have been treated differently. However, a good track record is not, in and of itself, definitive proof that the sovereign would not impose controls of some type at some point in the future in a period of severe economic stress. Conditions change and governments change.

One key element in this evaluation is whether, and to what degree, a particular transaction fits within the national priorities. For example, when a government is actively encouraging exports, a transaction specifically tied to export promotion might be favored and remain exempt from restrictions even while other transactions, which do not fulfill such national objectives, are constrained. In addition, when specific permission for a transaction has been granted, a sovereign might be more reluctant to withdraw such permission, or may "grandfather" that particular transaction, while future transactions are constrained or prohibited. It is therefore possible that some debt issues of a particular borrower are not highly subject to sovereign interference, while others issued by the same entity are.

Government ownership and regulation

Many of the entities issuing debt that are domiciled in low-rated countries are partially, or completely, government owned. If foreign-exchange controls are imposed, it is unlikely that government-owned institutions would be permitted or would choose to circumvent government controls.

The same holds true for entities that are highly regulated by the government, even without a direct ownership tie. This includes most financial institutions and regulated utilities. Thus, it is unlikely that a government-owned entity, or one that is highly regulated, could be viewed as more creditworthy than the sovereign itself in terms of meeting foreign currency obligations.

Duration of controls

When controls or restrictions are imposed, their duration cannot be predicted. In some instances, controls have lasted for only a few weeks or months, and in some others, they have been applied selectively. In still other cases, they have been much longer-lasting and all-encompassing. A rating cannot be based on a guess as to the duration or comprehensiveness of controls, and analysis cannot determine that controls would be in place for a specific (short) period of time. Accordingly, liquidity and parental support which would only temporarily serve to meet debt service are not sufficient to justify a higher rating in themselves. A reserve fund of one year's payments or even longer cannot be assumed sufficient to overcome the impact of controls. Reserve funds may be used for some transactions—to cover the temporary interruption of supply for an export receivables deal, for example—but not to deal with the potential imposition of currency controls or similar actions that may prevent the payment on debt.

Governing law

The law governing a specific debt issue, as well as other legal factors, may be relevant in evaluating whether a sovereign could affect timely payment on a debt obligation. However, Standard & Poor's exercises caution in placing weight on the legal factor. When sovereign powers are involved, issues such as conflicts of law, waivers, and permission to hold and use funds held outside the country of domicile are confused at best and would likely be tested and resolved by the courts only after, rather than prior to, a default.

Special cases

In some instances, an issuer is technically domiciled in a particular country for tax or reasons other than business undertaken within that country. For example, issuers domiciled in certain specified financial centers, such as the Cayman Islands, are viewed as independent of that financial center's sovereign risk. No substantial business is undertaken within that jurisdiction; no substantive assets are maintained in that jurisdiction; and the issuer could change its location quickly and without risk to the debtholder should the sovereign impose any form of controls or onerous taxes.

Multilateral lending institutions, such as the International Bank for Reconstruction and Development (World Bank), the International Finance Corporation (IFC), and the Interamerican Development Bank (IADB), enjoy preferred creditor status. By virtue of the borrowing country's membership in the lending organization and as a condition of eligibility to receive loans, the country assures that it will not impose any currency restriction or other impairment to the repayment of such loans. In some cases, the treaty establishing the organization also specifies such special treatment of loans by member nations. Often these loans, while made to other, nonsovereign enti-

ties, are also guaranteed by the borrowing country, and the lending institution has a policy that no further loans will be granted to borrowers in that country if any loans are in default.

These factors give the borrowing country strong incentives to maintain timely loan repayment. The result has been an excellent repayment record for such obligations even while other borrowings from banks or other lenders have fallen into default. One analytical element is assessing the creditworthiness of these loans in the proportion of a country's total external indebtedness made up of this type of obligation. The larger the proportion, the more difficult it may be for the country to meet these in a timely manner and preserve their special status.

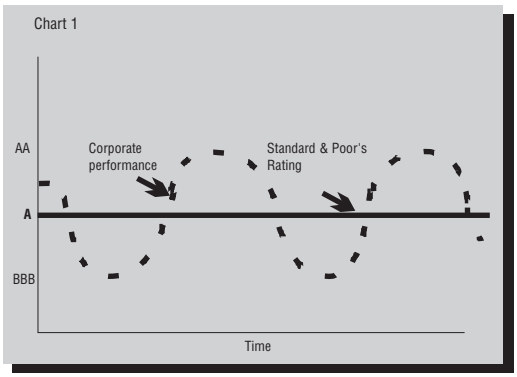
Factoring Cyclicality into Corporate Ratings

Standard & Poor's credit ratings are meant to be forward-looking; that is, their time horizon extends as far as is analytically foreseeable. Accordingly, the anticipated ups and downs of business cycles—whether industry-specific or related to the general economy—should be factored into the credit rating all along. This approach is in keeping with Standard & Poor's belief that the value of its rating products is greatest when its ratings focus on the long term, and do not fluctuate with near-term performance. Ratings should never be a mere snapshot of the present situation. There are two models for how cyclicality is incorporated in credit ratings. Sometimes, ratings are held constant throughout the cycle. Alternatively, the rating does vary—but within a relatively narrow band.

Cyclicality and business risk

Cyclicality is, of course, a negative that is incorporated in the assessment of a firm's business risk. The degree of business risk, in turn, becomes the basis for establishing ratio standards for a given company for a given rating category. (The ratio guidelines that Standard & Poor's publishes are expressed as a matrix, so that the degree of business risk is explicitly recognized.) The analysis then focuses on a firm's ability to meet these levels, on average, over a full business cycle, and the extent to which it may deviate and for how long.

The ideal is to rate "through the cycle" *(see chart 1)*. There is no point in assigning high ratings to a company enjoying peak prosperity if that performance level is expected to be only temporary. Similarly, there is no need to lower ratings to reflect poor performance as long as one can reliably anticipate that better times are just around the corner.



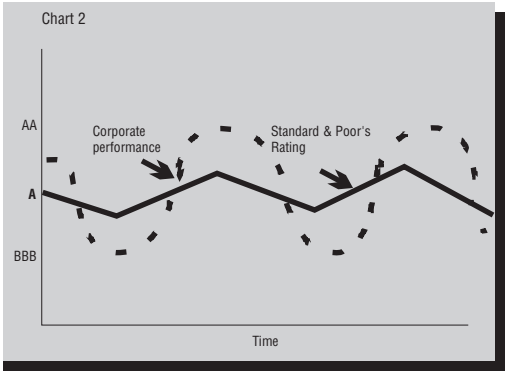
The rating profile of the chemical industry offers a good illustration of Standard & Poor's long-term approach. Ratings for the major industry participants have been highly stable over a 12-year period, which has included two full industry cycles.

However, rating through the cycle is often the incorrect model. One reason is that rating through the cycle requires an ability to predict the cyclical pattern—and this is usually difficult to do. If indeed there is such a thing as a "normal" cycle, it is rare. The phases of the latest cycle will probably be longer or shorter, steeper or less severe, than just repetitions of earlier cycles. Management's determination to learn from previous cycles itself implies that "things will be different this time." Interaction of cycles from different parts of the globe, and the convergence of secular and cyclical forces further complicate things.

Moreover, even predictable cycles can affect individual firms so as to have a lasting impact on credit quality. For example, a firm may accumulate enough cash in the upturn to mitigate the risks of the next downturn. (The Big Three automobile manufacturers have been able—during the most recent cyclical upswing—to accumulate huge cash hoards that should exceed cash outflows anticipated in future recessions.) Conversely, a firm's business can be so impaired during a downturn that its competitive position may be permanently altered. In the extreme, a company will not survive a cyclical downturn to participate in the upturn!

Accordingly, ratings may well be adjusted with the phases of a cycle. Normally, however, the range of the ratings would not fully mirror the amplitude of the company's cyclical highs

or lows, given the expectation that a cyclical pattern will persist. The expectation of change from the current performance level—for better or worse—would temper any rating action, even absent a totally clear picture of the cyclical pattern. In most cases, then, the typical relationship of ratings and cycles might look more like chart 2.



The ratings of the forest products industry reflect such a pattern.

Sensitivity to cyclical factors—and ratings stability—also varies considerably along the rating spectrum. The creditworthiness of non-investment-grade firms is, almost by definition, more volatile. Moreover, the lowest credit rating categories often connote the imminence of default. As the credit quality of a company is increasingly marginal, the nature and timing of near-term changes in market conditions could mean the difference between survival and failure. A cyclical downturn may involve the threat of default before the opportunity to participate in the upturn that may follow. Accordingly, cyclical fluctuations will usually lead directly to rating changes—possibly even several rating changes in a relatively short period. Conversely, a cyclical upturn may give companies a breather that may warrant a modest upgrade or two from those very low levels.

In contrast, companies viewed as having strong fundamentals—that is, those enjoying investment-grade ratings—are unlikely to see their ratings changed significantly due to factors deemed to be purely cyclical—unless the cycle is either substantially different from what was anticipated or the company's performance is somehow exceptional relative to what had been expected.

Analytical challenges

The notion of "rating through the cycle," while conceptually appealing, presupposes that the characteristics of future cycles are readily foreseeable. The very term "cycle" seems to imply regularity. In actuality, this is seldom the case.

Cyclicality encompasses several different phenomena that can affect a company's performance. General business cycles, marked by fluctuations in overall economic activity and demand, are only one type. Demand-driven cycles may be specific to a particular industry. For example, product-replacement cycles lead to volatile swings in demand for semiconductors. Other types of cycles arise from variations in supply, as seen in the pattern of capacity expansion and retrenchment that is characteristic of the chemicals, forest products, and metals sectors. In some cases, natural phenomena are the driving forces behind swings in supply. For example, variations in weather conditions result in periods of shortage or surplus in agricultural commodities.

The confluence of different types of cycles is not unusual. For example, a general cyclical upturn could coincide with an industry's construction cycle that has been spurred by new technology. The interrelationship of different national economies is an additional complicating factor.

All these cycles can vary considerably in their duration, magnitude, and dynamics. For example, the unprecedented eight years of uninterrupted, robust economic expansion in the U.S. that followed the 1982 trough was totally unforeseen. On the other hand, there was no basis to assume in advance that the downturn that followed would be so severe, albeit relatively brief. Indeed, at any given point, it is difficult to know the stage in the cycle of the general economy, or a given industrial sector. A "plateau" following a period of demand growth might indicate that the peak has been reached—or it could represent a pause before the resumption of growth.

Even general downturns vary in their dynamics, affecting industry sectors differently. For example, the soaring interest rates that accompanied the recession of 1980-1981 had a particularly adverse affect on sales of consumer durables, such as automobiles. Sometimes, sluggish demand for large-ticket items can spur demand for other, less costly consumer products.

In any case, purely cyclical factors are difficult to differentiate from coincident secular changes in industry fundamentals, such as the

emergence of new competitors, changes in technology, or shifts in customer preferences. Similarly, it may be tempting to view cyclical benefits—such as good capacity utilization—as a secular improvement in an industry's competitive dynamics.

A high degree of rating stability for a company throughout the cycle also should entail consistency in business strategy and financial policy. In reality, management psychology is often strongly influenced by the course of a cycle. For example, in the midst of a prolonged, highly favorable cyclical rebound, a given management's resolve to pursue a conservative growth strategy and financial policy may be weakened. Shifts in management psychology may affect not just individual companies, but entire industries. Favorable market conditions may spur industry-wide acquisition activity or capacity expansion.

Standard & Poor's is also cognizant that public sentiment about cyclical credits may fluctuate between extremes over the course of the cycle, with important ramifications for financial flexibility. Whatever Standard & Poor's own views about the long-term staying power of a given company, the degree of public confidence in the company's financial viability is critical for it to have access to capital markets, bank credit, and even trade credit. Accordingly, the psychology and the perceptions of capital providers must be taken into account.

Regulation

The regulatory relationship can be a benign one—or it can be adversarial. It affects virtually all corporates to one extent or another, and is obviously critical in the case of utilities—where it is a factor in all assessments of business risk.

Evaluation of governmental involvement/regulation encompasses legislative, administrative, and judicial processes at the local and national levels. This evaluation considers the current environment—and the potential for change. For example, a system that requires legislative action to modify regulations is more stable—and is viewed more positively—than one that is subject to ministerial whim, as exists in some Asian countries. Similarly, a regulatory framework enacted with regard to a recently privatized system is more prone to be *re*visited by government regulators.

The impact of regulation runs the gamut—from regulation's providing of direct, tangible support to its being a hindrance. For a utility business profile to be considered "well above average" usually requires strong evidence of government support or regulatory sheltering. Support can be explicit—such as in Canada and in other locales where a government guarantees a utility's obligations. Or it can take the form of strong and obvious implicit support, such as in Greece.

Japanese investor-owned utilities have historically been insulated from competition and been protected by a very cooperative, coordinated, rate-setting process. Other governments may facilitate the utility's access to external sources of capital, especially where the utility is a direct instrument of government policy. In the U.S., municipally owned utilities have also been sheltered—at least they have in the past. (Deregulation has unleashed competitive pressures, but politics makes it difficult to make adjustments that would affect either residential rates or the city's own general fund.)

Short of such outright support, regulatory treatment should be transparent and timely and should allow for consistent performance—if it is to be viewed positively in the ratings context.

Aspects of Regulation

The role of the regulator is evident in:

- Rate setting,
- Operational oversight, and
- Financial oversight.

Setting rates is obviously important. To support credit quality, a utility must be assured of earning a fair—and consistent—rate of return. Different regulators can be more—or less—generous with respect to the levels allowed — or with respect to which assets are included in the "returns" calculations. They can choose to overlook—or to penalize—a utility for any service shortcomings in service.

Operational regulation pertains to technology, to environmental protection considerations, safety rules, facility siting, and service levels—and the freedom a company has to pursue initiatives involving each of these areas. Regulatory inflexibility can hamstring the utility in its attempt to be competitive. For example, if a utility faces new competition for its large users, it may want to lower the rates it charges its commercial/industrial customers—and make up its lost revenues by raising the rates at the expense of residential customers. The regulators may object and insist that residential rates continue to be subsidized—creating a problem for the company.

Financial oversight refers to the regulator's ability to maintain—and interest in maintaining—a particular level of credit quality at the utility. This is a separate consideration from how benign the relationship might be in other respects. If the situation warrants it, the rating evaluation may rely on the regulator to enforce—or at least encourage—a certain level of financial strength at the utility. In this respect, the regulator's role can take different forms:

• Approval is the most basic element. That a utility requires approval to sell debt or pay dividends creates an obstacle with respect to its fiscal aggressiveness.
• Influence refers to the economic incentives that a regulator can provide to maintain a certain level of credit quality. In jurisdictions with rate-of-return regulation, regulators can effectively mandate their view of an "appropriate" balance sheet by specifying return on equity. Even when regulation is not classic "rate base rate of return"—such as with price cap or banded rate of return—regulators may still desire a minimum level of credit quality. In past Standard & Poor's surveys, regulators articulated a concern about credit quality's falling below 'A'. Now, however, attitudes are changing about regulating with an eye toward credit quality.
• Regulatory mandate—the explicit demand of a specified level of credit quality—is rare today. In the past, some regulators would impose penalties if a company's credit rating dropped below the desired minimum.

As competition intensifies, regulators have focused on service quality, and are less concerned with credit quality. (After all, even a bankrupt utility can continue to deliver services!) Of course, not all regulatory jurisdictions will follow the trend in identical fashion. In the U.S., there are currently few instances where ratings rely heavily on regulators to maintain credit quality; outside the U.S., however, there is a greater basis for depending on regulators in this regard.

Regulatory Separation

Utilities are often owned by companies that own other, riskier businesses or that that are saddled with an additional layer of debt at the parent level. Corporate rating criteria would rarely view the default risk of an unregulated subsidiary as being substantially different from the credit quality of the consolidated economic entity (which would fully take into account parent-company obligations). Regulated subsidiaries can be treated as exceptions to this rule—if the specific regulators involved are expected to create barriers that insulate a subsidiary from its parent.

In those cases that benefit from regulatory insulation, the rating on the subsidiary is more reflective of its "stand-alone" credit profile. (As a corollary, the parent-company rating is negatively affected—since it is deprived of full access to the subsidiary's assets and cash flow.) With utilities' competition and consolidation increasing and with shifts to new forms of regulation that are coming into existence, however, there is less reason to expect such regulatory intervention. Just as there is less and less basis to rely generally on regulators to maintain a level of credit quality—as discussed above—so, too, there is less basis for regulatory separation.

Rating policy has evolved in tandem with these trends. The bar has been raised with respect to factoring in expectations that regulators would interfere with transactions that would impair credit quality. To achieve a rating differential for the subsidiary requires a higher standard of evidence that such intervention would be forthcoming. *(See sidebar "Telecommunications Ratings Policy Revised.")*

In the past, the mere existence of regulation was given considerable weight when determining the adequacy of protection for the subsidiary's assets and cash flow. Now Standard & Poor's analyzes regulatory insulation on a case-by-case basis. The key is a regulator's demonstrated willingness to protect creditworthiness. Some examples of U.S. state jurisdictions where protective measures have been implemented are Oregon, New York, Virginia, and California.

The Oregon Public Utilities Commission approved the Enron Corp./Portland General Electric Co. merger, based on various restrictive conditions. Likewise, the New York Public Service Commission, in approving the Keyspan Energy/Long Island Lighting Co. merger, required a cap on leverage, a prohibition of certain types of loans, and a limit on holding-company investment in nonutility operations.

Outside the U.S., regulators in many countries still play a more significant role in the finances of utilities—making the case for regulatory separation in those countries. Moreover, some recent transactions—notably in the U.K.—have employed (or at least have considered employing) structural insulation techniques to achieve "ring-fencing" for the acquired utility subsidiary. In these instances, setting up independent directors, minority ownership stakes, and so forth combine with regulatory oversight to insulate the subsidiary and achieve higher ratings.

TELECOMMUNICATIONS RATINGS POLICY REVISED

Standard & Poor's no longer allows the corporate credit rating (CCR) of a regulated telephone operating company to be higher than the CCR of its parent.

The revised approach represents a further evolution of the rating methodology for U.S. local exchange companies (LECs) that reflects the important regulatory and business developments that have occurred in the telephone industry recently. The impact of the policy, on companies for which the former regulatory separation methodology was applicable, in general, is a lowering of telephone operating company CCRs and a raising of parent company CCRs.

Regulatory separation is the factor that *historically* enabled telephone operating companies to have higher debt ratings than their parent companies. (In contrast, for nonutility corporates, subsidiary debt ratings have, all along, been constrained by the rating of the parent.) This constraint is based on the concept that, although a subsidiary may—on a stand-alone basis—appear to be a better credit than its parent, the financially less-creditworthy parent ultimately controls the subsidiary's financial actions and so can avail itself of the financial resources of the subsidiary. Under Standard & Poor's regulatory separation methodology, LECs were deemed to benefit from a buffer between the LEC subsidiary and its parent—that buffer arising from the ability and willingness of state regulators to impose some level of credit quality at the regulated subsidiary.

In April 1997, following a review of the status and impact of regulatory separation, Standard & Poor's modified its criteria regarding the application of regulatory separation and the impact on ratings of U.S. telephone parent companies and their LEC subsidiaries. The 1997 policy revision acknowledged the continued, but generally decreasing, impact of regulatory separation on ratings and led to modified guidelines for assessing the ratings impact of regulatory separation. These guidelines reflected Standard & Poor's assessment that there was sufficient evidence that specific state regulators could and would use their regulatory role to ensure maintenance of some minimum credit quality. As a result of that methodology revision, there were a number of rating changes that narrowed the rating gap between higher-rated telephone operating subsidiaries and their respective parents.

The new methodology that Standard & Poor's now uses recognizes the vast industry changes that have occurred in the three years since the Telecommunications Act of 1996, amounting to a secular transformation of the telecommunications' competitive environment, and tangible evidence of regulators' lack of response to credit-weakening events.

Of LECs and CLECs

In general, although LECs still maintain very favorable market positions, the days of the LEC monopoly are clearly numbered. Driven by the regulatory changes resulting from the Telecommunications Act of 1996 and fast-moving technological developments, competitive local exchange companies (CLECs) are becoming formidable competitors to the LECs. In addition to the vast number of CLECs entering the market for both voice and data, AT&T Corp. is poised to be a major alternative telephone provider. AT&T's goal is not just to be the largest cable provider, but to modify the wires of its owned and affiliated cable systems to offer local telephone service to millions of potential customers. This multibillion-dollar investment in cable upgrades, if successful, would make AT&T the largest CLEC, putting it in direct competition with its former regional Bell operating company affiliates.

The growth of CLECs and the potential for lower-cost wireless service as a wireline replacement portend genuine competition for most regulated LECs. This more competitive environment will erode the historical notion that the LEC was a bottleneck monopoly of a vital service. It was this view of the LEC as a

TELECOMMUNICATIONS RATINGS POLICY REVISED (CONTINUED)

monopoly of a vital public service that led to the regulatory view that such companies should exhibit a pristine balance sheet. Accordingly, state regulators are likely to shift their regulatory focus away from oversight of a company's financial policy and toward ensuring an open marketplace. Specifically, Standard & Poor's anticipates that regulators will increase efforts to ensure that competitors to the LECs have the necessary tools, including collocation and the ability to purchase the existing network elements, to mount a challenge to the entrenched LEC. This expected shift in the regulatory paradigm means that state regulators will be increasingly less likely to provide a financial buffer between the telephone operating company and its parent. Protection that formerly inured to bondholders of the telephone operating company will dissipate.

In addition to the technical and regulatory trends noted above, there is also tangible evidence that the notion of bondholder protection from regulatory separation is becoming obsolete. During the past couple of years, regulators have had the opportunity to react to merger proposals that weakened the credit quality of the regulated company. In fact, the regulatory response has generally been focused on open market and service quality issues, and has not been focused on the issue of diminution of the regulated operating companies' credit quality.

Recent Industry Actions

When Global Crossing Ltd. announced its ambition to purchase Frontier Telephone of Rochester Inc. (Frontier), Standard & Poor's indicated that the Frontier ratings could fall significantly. Indeed, the Frontier CCR was eventually lowered to 'BB+' from 'AA-' as a result of the Global Crossing transaction. Although, because of an earlier agreement with the New York State Public Service Commission (PSC), the rating downgrade will restrict dividends from Frontier for a period of time, importantly, the PSC did not try to prevent the acquisition.

Similarly, Standard & Poor's lowered its CCR on Cincinnati Bell Telephone Co. (CBT) to 'BBB-' from 'AA-' following parent company Cincinnati Bell Inc.'s (doing business as BroadWing Inc.) acquisition of 'B'-rated IXC Communications Inc. This acquisition was dependent on obtaining Ohio Public Utilities Commission (PUCO) approval prior to debt issuances at CBT, thereby limiting the parent company's ability to leverage the telephone operating company. However, despite the credit pressures placed on CBT by its parent's proposed purchase of the much lower rated IXC, PUCO did not create any roadblocks for consummation of the transaction or impose any financial penalty on CBT for a weaker credit profile.

In June 1999, US West Communications Inc., rated 'A+', announced it would be acquired by Qwest Communications International Inc. Standard & Poor's noted that the CCR of the combined entity could fall as low as 'BBB-'. The thrust of regulatory concern: areas of service quality, ensuring access by competitors to the US West network, and interoperability of operating systems between US West and competitors. The issue of lower credit quality at US West, at this juncture, does not appear to be a hurdle factor in gaining regulatory approval.

Standard & Poor's believes that the preceding examples of regulatory responses are supportive of its revised telephone rating methodology that recognizes a new regulatory and competitive paradigm. Telephone companies can expect to deal with an array of increasingly formidable competitors, and telephone company bondholders can no longer look to state regulators for protection.

Loan Covenants

Rationale for Covenants

Covenants provide a framework that lenders can use to reach an understanding with a borrower regarding how the borrower will conduct its business and financial affairs. The stronger the covenant package is, the greater the degree of control the lender can exercise over the investment. Borrowers typically seek the least restrictive covenant package they can negotiate, since they want maximum flexibility to conduct their business in the way they see fit.

Covenants' intended functions include:

• *Preservation of repayment capacity.* Some covenants limit new borrowings and assure lenders that cash generated both from ongoing operations and from asset sales will not be diverted from servicing debt. Covenants can prevent shareholder enrichment at the expense of creditors. Credit quality is preserved by share-repurchase and dividend restrictions, which seek to maintain funds available for debt service. Finally, to ensure that the base of earning assets is maintained, covenants can govern asset sales and investment decisions.

• *Protection against financial restructurings.* All lenders are concerned with the risk of a sudden deterioration in credit quality that can result from a takeover, a recapitalization, or a similar restructuring. Properly crafted covenants may prevent some of these credit-damaging events from occurring without the debt's first having been repaid or the pricing's first having been adjusted.

• *Protection in the event of bankruptcy or default.* These covenants preserve the value of assets for all creditors and—what is particularly important—safeguard the priority positions of particular lenders. Such covenants assure the lenders that subsequent events or actions will not materially affect their ultimate recourse. Protection is provided through negative-pledge clauses, cross-acceleration (or cross-default) provisions, and limits on obligations that either are more senior or rank equally.

• *Signals and triggers.* Signals and triggers assure the steady flow of information, provide early warning signals of credit deterioration, and place the lender in a position of influence should deterioration occur. Since triggers can bring the parties to the table, to enable the lender to decide whether it might be appropriate to modify or waive restrictions, they must therefore be set at appropriate levels, to signal deterioration before the credit drops to unacceptable levels. Among tests that perform this function are net-worth maintenance tests, cross-default provisions, and merger and consolidation restrictions.

In many cases, covenants can serve more than one function. For example, a well-written debt test will not only help preserve repayment capacity, but will also serve as a signal of potential credit deterioration and provide protection against damaging recapitalizations.

Public-market participants long ago stopped demanding significant covenant protection, perhaps because poorly written covenant packages with weak tests and significant loopholes enabled managements to circumvent them. Furthermore, in a widely held transaction, a covenant violation that normally would be waived could deteriorate into a payment default, due to the difficulty of having all the investors act in unison. Moreover, investors in publicly traded debt instruments have little interest in working with borrowers and probably have fewer resources to do so. Their primary protection is their ability to sell their investments if things should turn sour.

Traditional private-placement investors and bank lenders do have the resources and the expertise to work out problem credits. Such investors negotiate covenant packages carefully, to give themselves the most advantageous position from which to exercise control, and they expect to be compensated adequately for accepting covenants that are weak, those that might allow management more leeway to cause a deterioration in credit quality.

In general, covenant packages are more relaxed than in the past, however, because, now, liquidity has increased, and financial markets broadened.

Covenants and Ratings

Covenants *do not* play a significant enhancing role in determining the credit ratings assigned to companies. In assigning ratings, there are several flaws in a strategy of relying on covenants to protect credit quality:

• Covenants don't address *fundamental credit strength*. Covenants do not and cannot affect the borrower's facing business adversity, competitive reverses, and so forth. The level of a covenant is often inconsistent with the rating level desired. For example, a covenant that allows a company to leverage itself *no more than 60%* has little bearing on the company's achieving a 'BBB' rating, if 40% is the maximum leverage tolerated for that specific company as a 'BBB'.

• Enforcement is dubious. A company that is determined to do so can often, with the assistance of its lawyers, find ways to evade the letter of the agreement embodied in covenants. They could even choose to ignore them altogether! A court will usually *not* force a company to comply with covenants. Rather, the court will award damages—if the breach of covenants is considered the cause of the damages. So long as the company continues to pay principal and interest, the court is unlikely to recognize any damages as having occurred. Enforcement is more likely if there is a specific remedy that is provided for in the event of a breach of the covenant. Usually, the remedy is the ability to declare an event of default and accelerate the loan. However, this remedy is so severe that, more often than not, lenders choose not to precipitate a default by demanding immediate repayment—despite a stipulated right to do so. Instead, the lender may prefer to take a security position, to raise rates, or to provide more input into the company's decisions. Such actions could be valuable to that lender—without enhancing credit quality for the benefit of all creditors. In practice, lenders also waive covenants for a variety of reasons. Waivers might result from company/bank relationship issues, a lack of understanding of the magnitude of problems, or a realization that the original levels were unnecessarily tight.

• Finally, if the covenants appear only in certain issues, those issues could be refinanced.

For all these reasons, in most cases, Standard & Poor's does not believe that a particular covenant or group of covenants can improve a rating. Generally, there is no point in analyzing fine variations among different covenant packages, which certainly will not affect a particular borrower's ability to meet its obligations in a timely fashion.

Relying on covenants to insulate a subsidiary from its parent company is similarly problematic. Accordingly, Standards & Poor's would usually not rate a subsidiary based on its strong "stand-alone" profile, even if there were significant covenant restrictions.

The main reason to be aware of a rated entity's covenants is quite the opposite: Tight covenants could *imperil* credit quality by, in the event of their violation, provoking a crisis with the lenders, since the lender would have the discretion to accelerate the debt, causing a default that might otherwise have been avoided.

A covenant package can be helpful as an expression of management's intent. Since most companies (especially public companies) would be expected to honor, not evade, commitments they make, covenants can provide an insight into management's plans. An analyst would consider how complying with covenants were consistent with other articulated strategic goals. Management's willingness to agree to certain restrictive covenants, in essence, "puts their money where their mouth is." For example, if a company had traditionally been highly leveraged but planned to deleverage in the future, the analyst would expect to see a debt test that ratcheted down over time.

Typical Covenants

Covenants typically vary according to the level of credit quality. They increase in number and grow more stringent as the quality of the credit declines. They also vary depending on whether the debt is issued publicly or privately. Private lenders tend to require a complete and exacting package. These lenders are also likely to negotiate—and are more capable of renegotiating—covenants in the event of a change in strategy or of a covenant default. In addition, the tenor of the loan will govern which specific covenants are appropriate.

There are certain basic covenants that are present in all loan documents, irrespective of credit quality or type of financing. While these covenants may be worded in different ways,

they are considered important by all creditors for purposes of managing their investments. They are:

- Information requirements (which financial and other information must be provided at which times);
- Default (which events might constitute defaults and which remedies might be provided, possibly including cross-default and cross-acceleration provisions); and
- Modifications (how and under which conditions the loan documents might be amended, including defeasance provisions, if any).

Beyond these provisions, covenants are transaction-specific. While investment-grade transactions have few negative covenants, there are some that are common, including:

- A limitation on liens (with a negative pledge);
- A limitation of sale/leaseback transactions; and
- A limitation on mergers, consolidations, or sales of assets.

As one moves to speculative-grade transactions, other covenants are usually added to those above. Some of the most common are:

- Limitations on the incurring of additional debt (including debt at subsidiary levels),
- Restrictions on certain payments (including dividends, stock purchases, loans, and investments),
- Changes of control provisions, and
- Net-worth maintenance requirements.

Bank loan agreements may also contain provisions for periodic paying down of outstanding balances.

Over time, the lists will change, as the market's willingness to accept certain conditions changes. (For example, in the late 1980s and early 1990s, when event risk loomed large due to LBOs and takeovers, issues that contained covenants providing event-risk protection typically enjoyed a price advantage over those without such protection. With the end of the LBO boom, however, the market no longer demanded these clauses).

When reviewing a covenant package for any purpose, it is necessary to check its terms and definitions carefully. What is and—sometimes, what is more important—what is not included significantly affect the level of protection. Often, specified ratio calculations are not standardized, and it may be necessary to have management supply calculations and compliance documents.