Article Title: ARCHIVE | Criteria | Insurance | Specialty: Credit And Surety Insurance Criteria: Interactive Rating Methodology Data: (EDITOR'S NOTE: — This criteria article is no longer current. It has been superseded by the article titled "Trade Credit Insurance Capital Requirements Under Standard & Poor's Capital Adequacy Model" published on Dec. 6, 2013 and partly superseded by the articles titled "Insurers: Rating Methodology," published on May 7, 2013, "Management & Governance Credit Factors For Corporate Entities And Insurers," published on Nov. 13, 2012, and "Refined Methodology And Assumptions For Analyzing Insurer Capital Adequacy Using The Risk-Based Insurance Capital Model," published on June 7, 2010.) Given the unique characteristics of credit and surety (bonding) insurers, Standard & Poor's Ratings Services applies dedicated rating criteria that are specific to the sector. The rating on a credit or surety insurer will be particularly influenced by that insurer's ability to demonstrate strong management and systems together with a high degree of control over underwriting, this likely being reflected in a track record of relatively stable earnings across both insurance and macroeconomic cycles. Given the potential risks inherent in credit insurance and surety business around the world, capital adequacy will be measured with a greater emphasis on underlying risk exposure, as opposed to the premium- and reserve-based analysis more typically used for property/casualty insurers. This article therefore constitutes a specialist supplement to the general ratings criteria that are normally applied to property/casualty insurers. It should be noted, however, that methodological variations may be made to the basic analytical framework to reflect regional legal and accounting differences, and also to take advantage of detailed, standardized sector information that may be available, as would be the case for U.S. surety, for example. The methodology used to rate traditional property/casualty insurers does not address the potentially very high levels of volatility in loss ratios that credit and surety insurers can incur as economic cycles rise and fall. Any rating assessment of a credit or surety insurer must therefore take a longer term perspective than for other insurers, so that it captures both normal macroeconomic and insurance pricing cycles, as well as modeling of the more severe loss spikes that can occur every few decades as full-blown depressions grip regional and global economies. Standard & Poor's approach builds on established property/casualty insurer rating methodology by taking these special features of the credit and surety markets into account. The methodology is a combination of subjective and objective analysis, which looks at both historical performance and projections. As is the case with other types of insurer, the ratings approach is segmented into eight categories of analysis, namely: Industry risk; Competitive position; Management and corporate strategy; Operating performance; Investments; Liquidity; Capitalization; and Financial flexibility. Many of the challenges that credit and surety insurers face are interlinked and will cross several of these categories. The final rating decision will balance the strengths and weaknesses of a company under each of these respective categories. Industry Risk Industry risk involves an analysis of the business in which the insurer is operating. Our assessment will depend on exactly what kind of business the company is writing (trade credit, surety, reinsurance of either or both) and the pattern of losses apparent to each sector. For example, both trade credit insurance and surety loss trends are cyclical, but surety loss peaks are higher and less frequent. Meanwhile, diversification of insureds across industries is a major consideration in the analysis of both credit and surety insurers, with correlation analysis between industry and economic 'stop-go' cycles also being required. The volatile loss patterns resulting from cyclicality lead to relatively high capital 'cushion' requirements. As a result, credit and surety insurers tend to use reinsurance extensively, on average ceding more than 65% of their book of business. However, reinsurance reliance itself becomes a risk, making companies very dependent on the capacity and quality of reinsurance available in the marketplace. Competitive Position The issues underlying competitive advantage for credit and surety insurers are similar to those for any other insurer: effectiveness of distribution; brand awareness in appropriate markets; product capabilities; pricing; expenses; other inherent strengths and weaknesses; and external business opportunities and threats. In addition, Standard & Poor's looks at the company's ability to compete successfully at prevailing premium rates, and whether it has other competitive advantages that permit higher pricing, such as greater financial strength or conspicuously superior client service. Size may also be a significant factor when assessing diversification of risk and the ability to finance necessary IT systems and database developments. One element specific to credit insurers is the possible management of any government-supported activities, notably state-sponsored export credit

guarantees. Administration of such business will increase the market profile of a company and will also likely provide a stream of virtually risk-free fee income to complement normal insurance earnings, and thereby help compensate for loss volatility. However, such a role may also introduce political influences and expectations that might, for example, curtail the freedom of management to apply its own underwriting standards. Management And Corporate Strategy Management and corporate strategy can be one of the more critical factors in determining a rating; this can be seen in the variation of results between companies that are writing in essentially the same markets. A strong, long-term track record is always a good indicator of the quality of management and management systems. The quality of management information systems can be key, in particular a database that provides a detailed history covering the source client (supplier or counterparty) and buyer information, as well as exposure-monitoring systems. Standard & Poor's will examine the insurer's approach to credit scoring and credit underwriting, and determine whether the company applies this approach consistently. Ongoing surveillance processes will also be reviewed. Where counterparty limits are issued, Standard & Poor's examines how the utilization of these limits is monitored and how the aggregation of these limits within groups is controlled. Some companies have online links with their clients and can act very quickly to change credit limits; others rely on periodic reports. The key factor is the speed at which a company can access data and translate this input into appropriate action when managing credit limits. Standard & Poor's also considers how management defines its strategy. Although it is true that companies need to innovate and expand, those that concentrate on a core area of expertise generally achieve better results. The management team's experience and the company's corporate structure are also reviewed. Standard & Poor's examines the insurer's business goals and the level of risk management applied when formulating those goals, whether in respect of product design or financial strategy. Naturally, management's earnings targets and its 'comfort zone' for capitalization versus risk exposure are examined as an integral part of the analysis. Operating Performance Standard & Poor's analysis of operating performance focuses on the level of operating earnings in relation to revenues, as well as the volatility of earnings over time. Although Standard & Poor's considers a range of performance measures, two benchmarks are used, together with qualitative assessments. The benchmarks relate to (1) earnings levels using ROR (calculated as the underwriting result plus net investment income divided by net premiums earned plus investment income), and (2) earnings volatility using the standard deviation of the loss ratio. The ROR measure is the primary benchmark, and uses premiums as a proxy for risks, the assumption being that premium levels will vary more or less appropriately according to the perceived level of risk, notably the term of the cover or the credit quality of the underlying counterparty. This is far from being a perfect tool, however, as major risks may be mispriced and premiums may fluctuate according to current cyclical market conditions and the expertise and buying power of insureds. The secondary benchmark, relating to earnings volatility over time, aims to provide a reasonable additional check on the underlying quality of operating performance. Table 1 ROR Benchmarks ROR IMPLIED RATING EQUIVALENCE More than 20% AAA 15%-20% AA 10%-15% A 5%-10% BBB 0%-5% BB Less than 0% B The ROR benchmarks (see Table 1) are conservative, given the inherent systemic risks in this line of business vis-à-vis property/casualty. ROR is normally calculated on both a five- and a 10-year average basis. The primary focus is on the five-year average, but if a country is being hit by recession, results are likely to be depressed. To achieve a stable rating and avoid ratings volatility in the wake of the economic cycle, Standard & Poor's also analyzes averages over 10 or more years to include at least one significant recession so as to 'normalize' or 'smooth' the assessment over a full cycle. Some degree of earnings volatility is an inherent feature of credit and surety insurance. There will be an attritional element of loss on an annual basis, with a loss ratio of usually between 10% and 50%. This will increase, sometimes sharply, during a recession. Higher average loss ratios suggest that a company may not have priced risks properly or that rate competition is affecting the 'normal' level of loss ratios for a sector. A look at the standard deviation of loss ratios for a range of companies shows that the deviation can be as low as 1% to as high as 150% over a 10-year period. Some insurers manage to minimize this volatility through a combination of short-term actions--such as managing down their counterparty limits and repricing risks--and longer term measures--for example, by increasing deductibles, capping exposures, and varying reinsurance protections. Surety underwriters, however, tend to have less room for maneuver

once the risk has been underwritten, because of the longer tail characteristics of the business they write. Volatility in excess of 30% will usually warrant deeper-than-normal analysis on the part of Standard & Poor's. Table 2 Loss Ratio Benchmarks STANDARD DEVIATION OF LOSS RATIO IMPLIED RATING EQUIVALENCE 0%-15% AAA/AA 16%-30% A/BBB More than 31% BB/B Credit and surety insurers typically reinsure a much greater proportion of their business than traditional insurers; cessions of 50% or more are normal. The quality of reinsurers and the structure of the reinsurance programs are important. Many companies will limit the per-risk loss, but may not have protection against an aggregation of risks, other than quota share. The underlying determinants of earnings performance are evaluated using a number of measures, including loss ratios, combined ratios, expense levels, investment returns, ROEs, and the stability of each of these. Each factor helps the analyst to understand what is driving ROR and the volatility of underwriting and overall earnings. The impact of reinsurance on the gross position is also considered. The quality of earnings is affected by several factors. For credit insurance only: Are the risks underwritten individually (which presents considerable risk) or on a whole-turnover basis (in order to prevent antiselection)? What is the normal level of deductibles? Is the insurer underwriting the risk of prolonged nonpayment or actual insolvency of the company? For surety insurance only: Has collateral been provided? If so, why? Was collateral provided to cover an unattractive risk, or as a general policy decision? Is the level of deductibles sufficient to influence loss levels? For both types of insurance: Is the company only insuring the risk of actual insolvency of the counterparty? What is the recovery rate on losses paid? How long after the loss are recoveries received? The quality of the portfolio also has an impact on the quality of earnings. Standard & Poor's subjectively assesses the portfolio by analyzing the related industry risks. Some assumptions regarding domestic portfolios can be used based on industry-type data such as the number of corporate insolvencies or the level of provisions raised by the banking community. Standard & Poor's also looks at a company's underwriting criteria and how predictive of earnings deterioration they have been in the past. In addition, Standard & Poor's will examine whether the company has graded its risks, and what has been the gross loss experience for each of the grades. Investments And Liquidity Standard & Poor's assesses the quality and liquidity of assets and looks at whether there is effective asset-liability matching. A Standard & Poor's analyst would expect to see a more liquid portfolio than may be the case for most property/casualty insurers, allowing the credit insurer to cope with sudden changes in loss experience. The availability of additional committed bank funding lines or parental support is also taken into account. Capitalization To assess capitalization, Standard & Poor's uses a risk-based capital model plus an assessment of an insurer's reinsurance protection. An evaluation is also undertaken of the company's financial flexibility. Notably, Standard & Poor's will examine whether additional capital may be needed and, if so, whether the company has good access to capital funding, either through established access to external capital providers and the capital markets or by means of undoubted support from a parent group. Specialist capital modeling for credit insurers is designed to dovetail with Standard & Poor's European risk-based capital adequacy model, but, in terms of capital requirements, the modeling is oriented toward an exposure-based analysis, as opposed to a more conventional premiums-based approach. Available capital is based on reported capital and is analytically adjusted to reflect hidden or unreported capital (such as unrealized investment gains) or, conversely, to compensate for perceived reserve deficiencies, and is further modified to reflect investment and credit risks within the investment asset portfolio. Capital required is based on the 'gross loss over gross exposure' method, whereby the highest gross loss over (normally) 10 years is compared with gross exposure over the same period. The highest ratio over this period is then stressed by a further 25% and is subsequently applied to prospective exposure, with an adjustment for reinsurance protection. The output is then used to calculate the level of capital required for consistency with the various ratings available on Standard & Poor's long-term rating scale. Dependent upon business mix, the gross loss/gross exposure methodology is appropriately tailored to each company and group under review, although the basic principles remain the same. It should be noted that Standard & Poor's does not give any credit quantitatively in the model for any perceived excess-of-loss protection, which is qualitatively assessed. Credit for stop-loss arrangements is given quantitatively only if attachment points are realistic (for example, a stop-loss program that attaches at a 75% loss ratio for a company with a 10-year average loss ratio of 65% is likely to receive credit, while a

program that attaches at 120% is not). Table 3 shows how required capital would be calculated using the gross loss/gross exposure method. Table 3 Gross Loss/Gross Exposure Methodology (000S $) 2003 2002 2001 1995 1994 CREDIT STATISTICS Gross exposure 200,000 190,000 180,000 120,000 110,000 Gross loss reported 1,001 900 801 200 100 Full gross loss 1,201 1,081 961 240 120 Full gross loss/gross exposure (%) 0.60 0.57 0.53 0.20 0.11 CALCULATING REQUIRED CAPITAL Take worst-case full gross loss/gross exposure in the past 10 years (%) 0.60 0.60 0.60 N.M. N.M. Multiply by 1.25 for stress scenario (%) 0.75 0.75 0.75 N.M. N.M. Apply to gross exposure 1,502 1,426 1,351 N.M. N.M. Deduct client retention @20% (300) (285) (270) N.M. N.M. Deduct quota-share reinsurance @45% (541) (514) (487) N.M. N.M. Capital requirements for credit insurer (A) 661 628 595 N.M. N.M. Risk-adjusted capital* (B) 1,043 943 943 N.M. N.M. Capital adequacy ratio (B/A) (%) 157.9 150.3 158.7 N.M. N.M. *The figure for risk-adjusted capital is separately calculated using Standard & Poor's capital adequacy model. N.M.--Not meaningful. Standard & Poor's also takes into account the sovereign and diversification risks in the gross loss/gross exposure model. The capital adequacy model is based on the assumption that an insurer's portfolio is reasonably well diversified geographically and by line of business. If a company has a poorly diversified portfolio, the capital requirement will be increased by an additional charge (25%-75%) on top of the standard charge. The decision as to whether the portfolio is diversified or not will be guided by the premium volume of a company and its concentration by client, industry, country, and region. Standard & Poor's defines a single exposure in terms of exposure to a group of companies, not just to a single operating company within a group. Group E-Mail Address InsuranceInteractive_Europe@standardandpoors.com