Article Title: ARCHIVE | Criteria | Insurance | Health: Health Capital Adequacy Model Data: (EDITOR'S NOTE: —This article is no longer current. It has been superseded by "Risk-Based Insurance Capital Model," published Sept. 11, 2008.) While Standard & Poor's has long had a capital model for life/health insurers that incorporated charges for health insurance products, the growing market share of various types of managed-care products and providers necessitated adapting the model to reflect the different risk inherent in various types of managed-care products. Standard & Poor's capital adequacy model plays a significant role in the assessment of the capital strength of managed-care providers and health insurers. The most significant changes Standard & Poor's has made to the capital model relates to the factors applied to premiums for major medical and hospital-type coverage. Standard & Poor's applies lower factors to managed-care products than traditional coverage types; the greater the degree of managed care, the lower the risk-based capital requirement will be in the model. Lower factors are also applied to property and equipment used to deliver health care than for investment real estate. Capital adequacy will also be an integral part of evaluating a group of health maintenance organizations (HMO) owned by a holding company. As part of the group analysis, Standard & Poor's will aggregate the capital, assets, liabilities, and lines of business charges and evaluate the group's capital adequacy ratio (CAR). In addition, a simplified capital model will be used for each group member to determine if each unit is capitalized adequately. The Impact On Managed Care & The Health Insurance Industry The National Association of Insurance Commissioners (NAIC) is expected to introduce Health Organization Risk-Based Capital (HORBC) requirements, effective with year-end 1998 statutory financial statements. Standard & Poor's believes that the replacement of the traditional leverage ratios by risk-based capital adequacy measures will have as dramatic an impact on the managed-care industry as it did on life insurers. Two issues in particular will materially impact the managed-care industry. These are as follows: Many managed-care organizations have CARs that will be in the vulnerable category. This is a consequence of regulatory minimal capital requirements for managed-care providers that are significantly lower than what risk-based capital adequacy analysis would indicate. HORBC is not expected to apply to life insurance companies selling health insurance products; the result being that a product sold by a managed-care organization will have a lower regulatory risk-based capital requirement than the same product sold by a life insurance company. Consequently, managed-care companies will seek capital from various sources. Some of the specific expected changes are as follows: 1) For managed-care organizations that are part of groups with good aggregate capital adequacy, risk-based capital requirements are likely to shift capital from more well-capitalized parental or affiliated entities into the operating units where it is needed. 2) Managed-care organizations without the ability to access parental or affiliated capital are likely to seek affiliations with other organizations that can provide capital, even though managed-care organizations are likely to enjoy some competitive advantage over life/health insurers with lower regulatory capital requirements. 3) Life insurance companies with an interest in the health care industry and with strong capital positions are the most natural partner for weakly capitalized managed-care organizations. 4) Life insurance companies will create or buy managed-care organizations in an effort to arbitrage the expected difference between the regulatory capital requirements for insurance companies and managed-care organizations. 5) Some of the players will change. The pace of acquisitions and divestitures in the health care industry will quicken as managed-care organizations with units in markets deemed unprofitable will now have profit issues exacerbated by including risk-based capital in return on equity targets. 6) There will be more extensive use of reinsurance to provide balance sheet strength to some of the players. 7) Capital needs of weakly capitalized managed-care providers will intensify because these organizations are more likely to experience antiselection issues as financial strength recognition and risk-based capital ratios become part of buying decisions, particularly among those interested in long-term business. How Standard & Poor's Capital Adequacy Model Works The model produces a "capital adequacy ratio." The ratio compares adjusted capital and surplus minus realistic expectations of potential investment losses against a base level of surplus appropriate to support liabilities and lines of business at a secure rating level (i.e., 'BBB' range). Adjustments to capital include items such as voluntary investment reserves and hidden equity, as well as adjustments for surplus notes included in capital. To receive equity credit, surplus notes or other hybrid instruments must satisfy certain criteria. Additionally, hybrid instruments given equity credit are amortized beginning in year 10 prior to maturity or potential call by the holder at

20% per year. As a result, by year 5 prior to maturity, there is no equity credit for these instruments. Car = (Total adjusted capital - asset charges)/liability-based charges In determining asset charges, Standard & Poor's examines investment portfolio quality to establish a reasonable estimate of expected losses over several years. This charge will also be adjusted to recognize any explicit statutory reserves that may have already been set aside for such losses. Charges for credit risks of bonds are based on expected defaults during a 10-year period and incorporate an assumed 50% recovery rate. Preferred stock factors are exactly double those used for bonds because no recovery assumption is applied. The surplus notes of other issuers held as assets are treated as preferred stock in Standard & Poor's capital adequacy analysis. The new model incorporates liability factors that recognize differences in risk by product, with lower factors for lower-risk products. The specific factors applying to the various types of assets and liabilities are listed in exhibits 1, 2, and 3 at the end of this article. Exhibit 1: Evaluation Of Asset Risks Asset default/loss risk factors are applied to the statutorily admitted carrying value of each asset class 1. BONDS AND PREFERRED STOCK FACTORS: RATING NET FACTOR: BONDS NET FACTOR: PREFD. STK. Exempt 0.0000 0.0000 AA,AAA 0.0042 0.0083 BBB 0.0326 0.0652 BB 0.0752 0.1504 B 0.1372 0.2743 CCC 0.2018 0.3000 in/near default 0.3000 0.6000 2. Unaffiliated common stock: 0.15 3. Bonds and stocks of a parent or affiliate: The initial approach is to charge these at 100%,although analytical judgment is used in determining appropriate charges. Subsidiaries and certain other affiliates in related lines of business are treated as a line of business, and the model aggregates the assets and liabilities of the affiliate with those of the parent to create a ratio that looks through the legal structure 4. Real estate: Property and equipment used to deliver health care Home office real estate Investment real estate 5. Cash, short-term investments: 6. Write-ins: 7. Net reinsurance recoverable: 8. Noncontrolled assets: 9. Off-balance-sheet items: 10. Long-term leases 11. Commercial and farm mortgages: Performing Adjusted problem mortgages Single-issuer concentration risk charges: The model incorporates concentration charges for assets associated with a single issuer exceeding10% of total adjusted capital (TAC) (exception: 15% for investment-grade bonds). The charges are graded as follows: percentage of TAC 10%/15%-25% 26%-50% 51%-75% 76%-100% over 100% Portfolio size factor: The final step in calculating the asset risk charge is to multiply the total of asset charges by a portfolio "size" factor. This factor =[(First $100 million inv. assets x 2.5)+(Next $100 million x 1.5)+(More than $200 million x 0.8)]/[Total invested assets],with the minimum size factor being 1.0. SideBar001 Exhibit 2: Evaluation Of Liability Risks These factors reflect Standard&Poor;'s assumptions about the threshold of capital necessary to absorb morbidity, expense, and other pricing risks for securely rated companies Comprehensive Medical and Hospital or Medical Only Factors are assessed against premiums, premium equivalents, and claim reserves. Traditional indemnity products have the highest factor, which is reduced if there is retrospective experience rating. Premiums for business with managed-care elements are assessed reduced factors. The analysis will be based on categorizing such premiums by the degree of managed care. For products with managed-care elements, the factor depends on whether the risk is reduced through contractual fee payments, bonus/withhold arrangements, capitation, or noncontingent salaries. Note that these factors do not apply to administrative services only and similar products without insurance risk (see below). A separate factor is also applied to premiums received for federal employee health benefit programs (see below). If there are rate guarantees for more than one year, the base factors will be increased by 2.4% (15 to 36 months guaranty) or 6.4% (over 36 months rate guaranty). Analytical adjustments may be made for capitated payments subject to credit-like risk. Federal employee health benefit programs: 4% Administrative-services only and administrative service contracts: 2% of the first $2 billion premium equivalents and 0.75% over $2 billion. Medicare supplement and dental: 12% of the first $25 million of premium. 8% over $25 million. Hospital indemnity, accidental death and dismemberment, and other limited benefits not anticipating rate increases: 8% of premium. Individual noncancellable disability income: 35% of the first $50 million of premium, 15% over $50 million. Individual other disability income, or group disability: 25% of the first $50 million of premium, 15% over $50 million. Long-term care: 25% of the first $50 million of premium, 15% over $50 million. Other "at risk" health products (e.g., vision, prescription drug, etc.): 12% of premium. Type of managed care 1ST $25 MIL. PREM. ABOVE $25 MIL. PREM. Traditional indemnity products 0.17 0.14 Retrospectively experience-rated indemnity 0.10 0.10 Contractual fee payments 0.14 0.10 Bonus/withhold arrangements 0.14 0.09 Capitation 0.11

0.07 Noncontingent salaries 0.09 0.06 SideBar002 Exhibit 3: Evaluation Of General Business Risk Standard&Poor;'s includes a charge of 0.5% of all health premiums excluding ASO/ASC. This factor is applied to all at-risk premium-type health revenue because of the dynamically changing environment in which managed-care providers operate. Standard & Poor's capital adequacy model differs from the proposed NAIC model in a number of ways: The new factors will be applied to managed-care organizations, such as HMOs, as well as to life insurance companies writing health insurance products. The factors applied to medical and hospital insurance products are generally greater than those expected to be used by the NAIC. In addition, the factors are applied to premiums, rather than to claims. Although there is no explicit adjustment to Standard & Poor's factors incorporating recent claims experience, analytical judgment may be used in adjusting factors to appropriately reflect risk levels. Standard & Poor's formula places asset risks in the numerator rather than in the denominator. There is no covariance adjustment, which is consistent with all other Standard & Poor's capital adequacy models. Interpretation of the Ratio Standard & Poor's sets standards for relative capital strength based on the CAR: CAR ASSESSMENT OF CAPITAL ADEQUACY below 100% Vulnerable 100%-124% Adequate 125%-149% Good 150%-174% Excellent 175% and above Superior The ratio is only a starting point for judging capital adequacy. Qualitative and quantitative enhancements are applied as warranted to derive a more complete picture of an organization's capital position. The analyst plays a critical role in adjusting Standard & Poor's model to best assess those risks that are unique to any given company, although still maintaining a standard of comparability between companies. The model is considered dynamic and may be changed to better reflect risks. Although considerable attention is focused on risk-based capital ratios, Standard & Poor's assessment of capital adequacy is only one of many factors employed in arriving at a financial strength rating for a company. The rating process will continue to be predicated on the belief that CARs are not a substitute for broad-based analysis of a company's credit quality. Strength or weakness in other key areas, such as management and corporate strategy, business profile, operating performance, liquidity, and financial flexibility, can more than offset relative strength or weakness in capital adequacy.