

Article Title: ARCHIVE | Criteria | Insurance | Life: Capital Adequacy Model For Life/Health Insurers  
Revised Data: (EDITOR'S NOTE: —This article is no longer current. It has been superseded by "Risk-Based Insurance Capital Model," published Sept. 11, 2008.) Standard & Poor's capital adequacy model plays a significant role in its assessment of the capital strength of a life/health insurer. The model produces a "capital adequacy ratio" that compares adjusted capital and surplus minus realistic expectations of potential investment losses against a base level of surplus appropriate to support liabilities at a secure rating level (i.e., 'BBB' range). To arrive at this ratio, Standard & Poor's begins by determining total adjusted capital, which is equal to statutory capital and surplus increased by the asset valuation reserve, half of the policyholder dividend liability, voluntary investment reserves, and other adjustments deemed appropriate. The next step involves assessing risk charges against the insurer's assets. The total of these asset charges is then adjusted by a portfolio "size factor" and increased to reflect any single issuer concentration risk. The resulting asset charge is subtracted from total adjusted capital and forms the numerator of the capital adequacy ratio. The denominator of the ratio is arrived at by applying risk factors to each type of liability for pricing risk and/or interest rate risk. The last ingredient in the denominator is a general business risk charge, which is assessed against U.S. premiums.

**Risk Factor Changes** While the general form of the capital adequacy model remains the same, several changes in the risk factors will take effect as of year-end 1997. The most significant of these changes affect the liability risk charges for health insurance products, where a distinction is now being made based on the degree of managed care inherent in each product. Additional revisions to the model involve refinements to the risk charges for certain asset categories, such as asset-backed securities (ABS), commercial mortgage-backed securities (CMBS), and real estate used in providing health care. Details of the specific changes are as follows:

**Changes To The C-1 Component (Asset Risk):** Explicit interest rate risk charges are now being included in the model for ABS, similar to those already applied to mortgage-backed securities (MBS) and callable bonds. For home equity and manufactured housing ABS, which have some of the characteristics of MBS, the charge will be 2%. Other categories of ABS will be charged at 1%. In prior years, Standard & Poor's analysts judgmentally included risk charges for ABS on a case-by-case basis; this practice is now being explicitly reflected in the model. Specific interest rate risk charges are also being included for CMBS. Charges for these assets were previously included based on analyst judgment. For companies involved in the delivery of health care services, a new category of real estate assets will be separately identified, namely property and equipment used to deliver health care. The charge for this asset class will be 0.10, a reduction from the 0.18 normally charged against investment real estate.

**Changes To The C-2 Component (Liability Pricing Risk):** The charges being assessed against comprehensive medical and hospital or medical-only products now reflect the degree of managed care, with the highest factors applied to traditional indemnity products and lower factors for products with managed-care elements. The base factors (see sidebar) **BASE FACTORS FIRST \$25 MILLION OVER \$25 MILLION premium premium**

Type of managed care:	Traditional indemnity	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
for products other than disability income and long-term care are increased if there are rate guarantees for 15 months or more: by 2.4% for guarantees of 15-36 months and by 6.4% for guarantees of more than 36 months. Specific factors are as shown in the shaded box.																		

The changes detailed above with respect to health insurance products will make the Standard & Poor's capital adequacy model for life/health insurance companies consistent with the capital adequacy model recently introduced for managed health care and health insurance companies. A complete list of the factors used in the Standard & Poor's life/health insurance company capital model is available upon request.