Article Title: ARCHIVE | Criteria | Insurance | General: Investments Data: (EDITOR'S NOTE: — This article is no longer current. It has been superseded by "Criteria | Insurance | General: Insurers: Rating Methodology," published on May 7, 2013 and "Lloyd's Syndicate Assessment Methodology," published on Oct. 31, 2013.) Asset quality and investment performance are integral to an insurer's operations and to remaining competitive. Premiums and deposits invested today must provide a yield sufficient to cover tomorrow's claims. Historically, property/casualty and health insurers have managed their investment portfolios more conservatively than life insurers because of the less-predictable timing and nature of their claims. Annuity and life companies generally have taken greater advantage of the predictable nature of their claims to take more risk in return for higher yields. Accordingly, Standard & Poor's Ratings Services' evaluation of an insurer's investment portfolio considers policyholders' competing and often conflicting demands for higher yields versus safety and liquidity. By far, the key element of the analysis lies in understanding the process by which the company allocates cash flows to various asset classes. Different classes of assets vary in their risk profiles and accompanying returns; thus, by choosing which asset to emphasize, a company preordains a large part of the return on its portfolio. Standard & Poor's is refining and adapting its methodology and assumptions for evaluating the investments of insurance companies, related to "Principles of Corporate and Government Ratings," which we published on June 26, 2007, on RatingsDirect at www.ratingsdirect.com and Standard & Poor's Web site at www.standardandpoors.com. We are publishing this article to help market participants better understand our approach to reviewing insurance companies. This article partly amends and supersedes "Property/Casualty Insurance Criteria: Investments," published April 20, 2004; "Health Insurance Criteria: Investments," published April 22, 2004; and "Life Insurance Criteria: Investments," published April 22, 2004," on RatingsDirect at www.ratingsdirect.com and Standard & Poor's Web site at www.standardandpoors.com. This article is part of a broad series of measures announced last year to enhance our governance, analytics, dissemination of information, and investor education initiatives. These initiatives are aimed at augmenting our independence, strengthening the rating process, and increasing our transparency to better serve the global markets. Asset Allocation Standard & Poor's review typically begins with the insurer's allocation of assets among investments such as public and private bonds, mortgages, preferred stock, real estate, common stock, private equities, and derivative instruments. We evaluate the assets for credit quality, liquidity and diversification. Of concern to us are asset concentrations by type and maturity, low credit quality, industry, geographic location, and concentrations of obligations with single issuers. We also examine an insurer's asset allocation to determine how appropriately it supports policyholder liabilities. For life insurance companies, guaranteed rate products generally require fixed-income assets, while participating policies allow for a greater proportion of equity investments. Therefore, Standard & Poor's will usually assess a life insurance company's investment objectives and the liability structure they support. Investment risk and the degree to which the maturity and duration of the investment portfolio match an insurer's liability structure are critical to Standard & Poor's evaluation of management's risk tolerance. The importance of interest rate risk management and the need to closely match assets to liabilities depends on the type of insurance product. The growth in investment-oriented insurance products and annuities, GICs, and universal life policies has exponentially increased the need for asset and liability matching. Standard & Poor's reviews the quality of an insurer's asset/liability management program by identifying the specific asset and liability durations and cash flows of interest rate-sensitive portfolios. Standard & Poor's also reviews the implicit derivative options within fixed-income portfolios. We review asset-backed portfolios for their sensitivity to interest rate risk, including prepayment and extension risk. We then compare the degree of interest rate risk in the investment portfolio with the company's product structure. Portfolio Diversification Once we understand the asset allocation strategy, we review any unusual concentrations, such as by asset type, industry sector, or individual companies. In our view, the essence of building a portfolio is diversification, and any concentrations could subvert the benefits of diversification. We closely examine issues that might not look correlated but in fact are, such as common and preferred stock issued by the same entity and perhaps convertible or senior debt also issued by the same entity or a closely related family member. In such an instance, for example, the nominal issuer might not be the same company, but if two entities are all part of the same family and under the same control, a clear concentration is apparent. Another example would be to look at the

overall real estate concentration, which would include MBS, commercial and residential mortgages, and equity real estate. In a low-interest-rate environment or a real estate market downturn, all these assets could suffer. Invested Asset Credit Quality We measure credit risk based on Standard & Poor's default studies and credit risk changes in Standard & Poor's capital model. Nevertheless, it is important for us to understand how and why the company has invested in issues that might contain credit risk so that we can form an opinion of the future disposition of cash flow. Does management have a tendency to invest to an above average degree in issues with higher degrees of credit risk such as speculative grade securities, or are current below investment grade assets so-called fallen angels (i.e. investments that started in the investment grade spectrum and declined in quality to speculative grade levels)? Does management invest in nonrated paper, perhaps to hide its credit risk appetite? Interest Rate Risk Life insurance and accident and health insurance Standard & Poor's takes insurers' interest rate risk exposure into consideration when reviewing their assets. Standard & Poor's looks at the management of asset duration versus liability duration and analyzes the interest rate optionality such as prepayment and extension that exists in the investment portfolio. As mentioned above, Standard & Poor's reviews asset and liability durations and cash flows of interest-sensitive portfolios. Standard & Poor's also examines a firm's interest rate sensitivity test results for these portfolios as well as any submissions on interest rate sensitivity sent to regulators, such as the New York Regulation 126 opinion results. To address the noncredit risk insurers could face in their investment portfolios, Standard & Poor's has incorporated an interest rate risk component to its life insurance capital model. In particular, Standard & Poor's analyzes the option risk inherent in certain assets, such as callable bonds, asset-backed bonds, and MBS (including pass-throughs, CMOs, and whole loans). As a result of the increased investment in these assets, life insurers' exposure to option risk has significantly increased in recent years. Option risk in MBS can be defined as the prepayment or extension risk implicit in this asset class. It can be a two-edged sword: When interest rates go up, these assets can extend or lengthen in duration due to mortgagees' making minimum payments, with fewer refinancings causing the securities to mature at a later date. Investors, therefore, have less money to invest at the current higher rates. Conversely, when interest rates go down, as in recent years, these assets tend to prepay (refinancings increase), and investors have more cash to invest at lower rates. This reinvestment risk can create issues from both a cash management and asset/liability management perspectives. The capital required for option risk is allocated for potential interest volatility. More important, the level of capital will be specific to a company's overall asset backed portfolio. Three key factors in evaluating this risk for insurers are the overall percentage of MBS and other negatively convex assets, the volatility of an insurer's portfolio, and the amount of option risk relative to the capital base. Not all planned amortization class bonds and sequentials are alike, nor are all companies' risk appetites alike. In evaluating mortgage-backed interest rate risk, it is important to emphasize that this is one component of the overall financial strength rating process for insurance companies. We must consider this risk in the context of each company's liability structure. The nature of the liabilities will help determine the relative extent to which the risk will likely be absorbed by the insurer or by policyholders. It will also put in a broader context whether an upward or downward change in interest rates may be more damaging to an insurer. Property/casualty insurance and health insurance Given that property/casualty and health insurers do not typically extend an explicit interest rate guarantee or even an implicit promise, interest rate risk usually is not as crucial a factor in our review as it is for life insurance companies. Moreover, as the typical liability durations of property/casualty companies are considerably shorter than for life companies, there is less of a tendency for asset managers of property/casualty companies to invest in longer term assets with proportionately greater convexity risk, and convexity is a much less significant risk for shorter term investments. In fact, Standard & Poor's generally would not be comfortable with a significantly long asset profile relative to liabilities. For instance, the normal property/casualty company's liability duration is three to four years, and Standard & Poor's would likely have a negative view of a company the majority of whose investments are in 30-year paper. Alternatively, Standard & Poor's would not expect precise duration matching by these insurers in light of their normally strong cash flows. Holdings of mortgage-backed bonds and other asset-backed bonds can add an element of option risk. Standard & poor's analysis of this risk for property/casualty companies is similar to what is done for life insurers. Liquidity Relatively speaking, almost all insurance company investment portfolios are somewhat liquid,

but Standard & Poor's reviews the portfolio with regard to overall liquidity because insurers might need to liquidate assets quickly to pay claims, especially if significant catastrophe exposures are present. Additionally, some of the newer and higher-growth insurance and annuity products within the life insurance and annuity sectors have embedded policyholder options (i.e. so called living benefits such as GMWB) which while projected, have yet untested degrees of utilization which may change liquidity requirements. Key considerations regarding liquidity include: The percentage of public versus private assets. How much of the portfolio is short-term versus long-term. How long the portfolio is and if it is subject to additional market risk. The percentage, duration, and type of MBS. The percentage, type, and quality of equity. s we've seen in the period 2007-2009, the ability to liquidate securities to meet normal or unusual demands can be disrupted by market turmoil. Thus, we believe it is increasingly important for companies to have a plan, or as some call it a "fire drill", to meet unusual cash demands. While it is always important to have highly liquid securities or maturing security cash flow to meet portions of normal demand, it is increasingly important to identify scenarios where less liquidity is available in the marketplace and develop strategies for alternative sources of liquidity by either liquidating securities or pledging them as collateral against borrowings (e.g. FHLB advances). We assess managements' capabilities in this regard against the complexity of their business models and products sold and securities owned. Market Risk The final element of risk that insurers can normally be expected to face is market risk, which is the risk that the value of assets, commonly equity securities, can fluctuate with the market. Because many property/casualty and health insurance companies and some life insurance companies invest relatively heavily in common equities, they can often be exposed to significant market risk. Standard & Poor's uses a log nominal regime switching approach to assess this market volatility risk in proportion to the insurer's capital base. However, Standard & Poor's is also interested in understanding the investment policies with regard to equity securities or other securities whose values are marked to market daily and in projecting future investments of cash flow. Return (Current Yield And Total Return) By analyzing each of these broad areas and the effective tax rates, Standard & Poor's can identify and explain how a given level of ROA or ROR is generated. Standard & Poor's then looks at the trend in ROA or ROR over time and relative to the industry. The objective of this phase of the analysis is to gain a clear understanding of the company's ongoing profitability. Securities lending Increasingly, traditional investment activities are being leveraged in a nontraditional way and/or conducted outside of the general account. Over the past few years, some traditional techniques to enhance overall portfolio returns, such as securities lending, have grown in both scale and complexity, offering new opportunities for returns and greater risks to manage. Traditionally, firms with large investment accounts such as banks and insurers have lent their securities on a collateralized basis to money and capital market counterparties. These programs were generally short term in duration and cash collateral proceeds reinvested in short term low risk assets. Throughout the past decade, the combination of continued spread compression and globalization of the financial markets gave impetus to and opportunity for a greater volume of securities lending. Insatiable demand in the market for securities enabled insurers to match demand with ever higher volumes of securities lending. As profitable opportunities in short term low risk investments declined, insurers lent securities for longer periods and reinvested cash collateral in longer duration and higher risk securities, including some of the now troubled asset classes. This led to investment losses and market value declines in the face of maturing securities lending contracts leading to, in some cases, liquidation of other general account assets. While overall investment risk of the assets may have been appropriately assessed, the corresponding liability was no longer traditional insurance policies, but shorter term contracts with differing liquidity needs. While many programs have successfully been unwound, the experience has heightened the need to identify and analyze the changing risks in investments resulting from evolving financial techniques and markets. Outside management of investments As a result of increasing investment complexity and management cost, and pursuit of higher returns and diversification, an increasing number of insurers have been using outside portfolio managers for some portions of the investment account. We continue to look at such exposures as we would traditional internally managed assets. We seek to understand the process for management of external managers as well as all the traditional risks of the asset class. This means understanding the strategies, tolerances and benchmarks for performance measurement. We are increasingly aware that some firms have abdicated

surveillance of these managers along with the active management of the investments. After we've identified some instances of poor external manager performance, some insurers have been unable to describe the reasons for poor performance or remediation of problems. We believe it is important that companies be able to understand and, if needed, manage the externally contracted investment activities and will take this ability, or lack thereof, into consideration in our analysis. Related Articles Interactive Ratings Methodology, April 22, 2009