Article Title: ARCHIVE | Criteria | Insurance | Life: Evaluating The Effect Of Regulation XXX On Insurers' Capital Data: In the U.S., life insurance companies work in a highly regulated environment. As a result, these companies have to adapt to new regulatory changes regularly. Regulation Triple X (also referred to as Regulation XXX) is creating some pressures for life insurance companies because of the substantial amount of redundant reserves that now are required for term and universal life insurance writers. This article summarizes the problems encountered in the capital analysis of life insurance companies that hold a substantial amount of business related to term life and universal life insurance. It contains a brief description of Regulation XXX, its impact on Standard & Poor's Ratings Services's view of capital, and a summary table describing the various alternatives available in the marketplace to eliminate the excess reserves. In addition, this article serves as a guide to how Standard & Poor's will adjust its analysis of capital and earnings for each of those alternative market solutions. Regulation XXX and the Problem It Created in the Life Insurance Marketplace Regulation XXX was adopted by many U.S. states as of Jan. 1, 2000. A handful of other states adopted the regulation on Jan. 1, 2001. Regulation XXX applies to new life insurance business issued on or after the date the particular state adopted it. All the life insurance policies in force before the regulation was adopted were grandfathered and were not affected by this change. Regulation XXX resulted in a significant increase in gross statutory reserves requirements—both basic reserves and deficiency reserves—for all major term life insurance and universal life (with secondary guarantees) insurance writers. To understand the problem with Regulation XXX, it is important to understand the main cause. These increases in reserves are primarily a result of the significant difference between the statutory valuation mortality (the 1980 CSO table) and recent mortality experience (a 0.5%-1% improvement in mortality per year since that table was created). The construction of the 1980 table is based on insured experience from 1970-1975 on policies issued in 1970 or prior. This difference in mortality assumptions creates a major disparity between economic reserves (the calculated reserves based on what most companies are experiencing in their actual mortality) and the statutory reserves. In other words, the statutory reserves became more conservative (or redundant) after Regulation XXX. To aggravate the problem with this discrepancy, life insurance companies are creating many distinct underwriting classes, such as super preferred nonsmoker (using about 40% of the 1980 CSO mortality table as the assumption), preferred nonsmoker (using about 40%-60%), select nonsmoker (60%-80%), standard (85%-100%), and many substandard categories (using more than 100%). Many of the percentages vary substantially from company to company. However, the statutory assumptions are not segmented in the same form, which is mainly standard or substandard, male or female, and smoker or nonsmoker. Therefore, the impact of Regulation XXX is magnified for preferred and super preferred classes. In the meantime, differences between economic and statutory reserves continue to grow, creating a substantial reserve redundancy, pressures in the prices of these insurance products, and lower statutory profits. There are no signs of regulatory changes in this area anytime in the near future. As a result, regulators are not bailing companies out of this Regulation XXX problem. It should be noted that the NAIC recently passed a regulation to adopt a new valuation mortality standard, the 2001 CSO mortality table, which incorporates some of the mortality improvements of the 1980s and 1990s, but it is not enough. Table 1 shows an example of how a company's mortality assumptions could have certain percentages of the Society of Actuaries 75/80 tables: Table 1 Example of a Correlation Between Mortality Assumptions and Society of Actuaries 75/80 Tables RISK CLASS PERCENTAGE OF THE SOCIETY OF ACTUARIES 75/80 TABLES Best Preferred 25-35 Preferred 30-65 Standard 45-100 Some of the key analytical factors that could affect the mortality profile of the company are: Any significant changes to the company's business plan, distribution system, or underwriting guidelines, practices, and procedures since January 2002 that would affect mortality assumptions. Actual/expected mortality trends. The reinsurance market. Competitive pressures affecting pricing. Regulatory changes affecting the contractual features. Alternative Solutions and Standard & Poor's Criteria Recommendations The life insurance companies facing Regulation XXX have been using various solutions to address the difference between the statutory reserve requirements and the economic reserves. Standard & Poor's credit analysts have been revising the capital models in various ways and will continue to make adjustments to the analysis of earnings and capital. Table 2 summarizes Standard & Poor's view of various ways to address Regulation XXX issues, such as reinsurance programs and structured finance

transactions. Table 2 Analysis of Various Methods To Address Regulation XXX Issues ALTERNATIVE SOLUTION DESCRIPTION STANDARD & POOR'S CAPITAL ADEQUACY RATIO RECOMMENDED TREATMENT ANALYTICAL ISSUES Third-party reinsurer (yearly renewable term or co-insurance) Transfer all the mortality risks to the third-party reinsurer at a cost. Risk is relieved from the direct writer and charged to the reinsurer. Over-reliance on reinsurance. Third-party reinsurance cost is increasing. Reinsurer still faces the Regulation XXX problem. Unaffiliated offshore reinsurer through a combination of modified coinsurance and full coinsurance (Co/mod-co) Unaffiliated offshore reinsurer will set up a trust or a letter of credit to cover the difference between the GAAP reserves and the STAT reserves required by the U.S. regulators to get credit for the regulatory risk-based capital model. Total adjusted capital will be calculated based on the new GAAP reserves for the reinsured block as long as the letter of credit is from an unaffiliated third party and regulators approve the risk-based capital credit. Therefore, total adjusted capital will increase. C2 and C3 risk charges remain unchanged at the direct writer company because there is no risk transferred. However, a factor will be applied to the GAAP reserves instead of the statutory reserves. One issue that needs to be addressed is the ability to raise funds if the direct writers can't obtain more letters of credit or regular reinsurance. Letter-of-credit capacity might dry up. Some statistics indicate that the letter-of-credit capacity in 2008 will be $25 billion and the Regulation XXX excess reserve could be more than $100 billion. Letters of credit are one-year terms, while the life insurance policies are 10-40 years long. Direct writers will have to put back the excess reserves in their books if the letter of credit can't be renewed, and this will come at the worst time for them. Alternatively, the companies will continue to face earnings pressures from the increase of the letters of credit. Affiliated offshore reinsurer through a combination of modified coinsurance and full coinsurance (Co/mod-co) Affiliated offshore reinsurer will set up a trust or a letter of credit to cover the difference between the GAAP reserves and the STAT reserves required by the U.S. regulators to get risk-based capital surplus relief. Total adjusted capital will be calculated based on the new GAAP reserves for the reinsured block as long as the letter of credit establishes that the reserves are truly redundant. Therefore, total adjusted capital will increase. The affiliated reinsurer would have to hold an investment-grade level of Standard & Poor's risk-based capital. C2 and C3 risk charges remain unchanged at the direct writer company because there is no risk transferred. However, a factor will be applied to the GAAP reserves instead of the statutory reserves. One issue that needs to be addressed is the ability to raise funds if the direct writers can't obtain more letters of credit or regular reinsurance. Letter-of-credit capacity might dry out. Some statistics say that the letter-of-credit capacity in 2008 will be $25 billion and the Regulation XXX excess reserve could be more than $100 billion. Letters of credits are one-year terms while the life insurance policies are 10-40 years long. Direct writers will have to put back the excess reserves in their books if the letter of credit can't be renewed, and this will come at the worst time for them. Alternatively, the companies will continue to face earnings pressures from the increase of the letter of credit. Structured finance transaction Structured transactions serve as a substitute for the offshore reinsurers with longer terms of coverage instead of the one-year letters of credit. Using GAAP reserves instead of STAT reserves enhances total adjusted capital as long as an unaffiliated third party covers the difference. Risk charges remain unchanged at the direct writer company but will be applied to economic reserves instead of statutory reserves. Standard & Poor's currently treats this as operational leverage, but there the analyst might set up a limit on a case-by-case basis. One issue that needs to be addressed is the ability to raise funds if the direct writers lose part of their financial flexibility. There is a risk to financial flexibility to fund the excess reserves. The operational leverage could be limited. The structure is tied to the company's financial strength because of the limited recourse or the ability of the insurer to control the policyholder's behavior. Usually involves a bond insurer to provide more financial flexibility. Conclusion In general, Standard & Poor's believes that Regulation XXX creates a reserve redundancy for some term insurance and universal life products. However, the quantity of the redundancy varies from company to company, and analytical adjustments to Standard & Poor's view of capital and earnings will be performed by the analyst on a case-by-case basis. Many solutions have been created in the marketplace to provide an alternative for Regulation XXX, and the way Standard & Poor's quantifies the impact varies depending on the solution. The capital markets and the reinsurance marketplace will continue to create more innovative solutions to take advantage of the difference between statutory

requirements and economic reality that is being created by Regulation XXX.