

STAFF REPORT
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CALCULATION OF PROFIT FACTOR

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1 Purpose of the Profit Factor

The Constitution provides that rate regulation of businesses should allow regulated firms to charge rates that give them the opportunity to recover their costs plus a reasonable profit. Accordingly, the proposed regulations provide a profit factor, the effect of which is to gross up the expenses in the numerator of the formula for calculating the maximum charge by a percentage that should yield a reasonable profit when the firm is operated reasonably efficiently.

2 Components

The profit factor is defined by section 2357.8 as follows:

$$profit = RoR * capital$$

“RoR,” the maximum rate of return, is defined by section 2357.9 as “the average return on short, intermediate and long-term U.S. Treasury bonds for the most recent three months . . . plus 6 percent.”

“Capital” is the capitalization ratio, which is defined by section 2357.3.

The maximum rate of return is intended as an after-tax rate, so the profit is adjusted for income taxes, as addressed below.

3 Capital

The function of the capitalization ratio in the regulations is to recognize the quantum of capital that is used and useful in providing the product or service in question. The principal purpose of capital in the insurance industry is to provide funds necessary to stand behind the insurance operations if the insurer’s losses or other costs prove to exceed expectations. Accordingly, in the regulation of property-casualty insurance, the Commissioner has employed a “leverage ratio” to identify how much capital the insurer needs to maintain for each dollar of premium it writes. (See Cal. Code Regs., tit. 10, § 2644.17.)

Various measures of capital have been used for various purposes in the insurance industry. Typically, insurance regulators employ statutory accounting principles (SAP) to measure an insurer’s available capital. More broadly in the economy, businesses employ generally accepted accounting principles (GAAP) to measure capital for accounting purposes. For other purposes, market valuation (typically

determined by a publicly traded company's market price) is cited. Generally speaking, rate regulation does not rely on market valuations to identify the amount of capital on which a firm's return is to be earned, due both to the volatility of market prices and to the circularity of relying on market prices, which can be expected to be affected by rate-regulation, to dictate the regulation itself.

In property-casualty insurance, the Commissioner employs statutory accounting to regulate rates. (See Cal. Code Regs., tit. 10, § 2643.5.) However, as explained below, the proposed regulations cover the costs of both the title insurer and non-insurer entities, the underwritten title company (UTC) and controlled escrow company. Neither UTCs nor controlled escrow companies typically maintain books on a SAP basis. Accordingly, the proposed regulations are based on a GAAP measure of capital.

The proposed regulations are based in part on the recognition that a single title-insurance premium is expected to cover the functions of both the title insurer and the UTC. (See Ins. Code, § 12401.1.) Accordingly, the proposed regulations are calculated to produce a profit sufficient to cover both the title insurer's and the UTC's functions without differentiation. The regulatory policy is, as it is generally in the proposed regulations, to leave the allocation of revenue, including profits, between the title insurer and the UTC to the negotiation of those entities. It follows from the foregoing that a single capitalization ratio should be employed for the functions of both the title insurer and the UTC.

As with the Commissioner's regulation of property-casualty insurance (see Cal. Code Regs., tit. 10, § 2644.17), the proposed regulations rely on the actual, observed ratio of capital to premium by companies in the title-insurance market. The underlying assumption is that if these companies choose to, and are able to, operate successfully and without excessive risk of insolvency at a given capitalization ratio, then it does not appear that capital in excess of that ratio would be useful in support of their title-insurance operations.

4 Rate of return

The proposed regulations set the maximum rate of return at a level sufficient, but no more than necessary, to compensate the firm's owners for placing their capital at risk.

The proposed regulations separate the rate of return into two parts: the risk-free rate and the risk premium. The reasoning is that capital can earn a risk-free return without risk (through investments in Treasury issuances). The proposed regulations employ a standard measure of the risk-free rate, the average of the returns on short-, intermediate-, and long-term Treasury bonds. As interest rates rise or fall, this average will rise or fall, raising or lowering the regulatory maximum rate of return.

The risk premium to be added to the risk-free rate represents the amount over the risk-free rate that is required to compensate the business for assuming the risks associated with the title-insurance business. In general, this quantity is derived by

comparing historical returns to the risk-free rate. However, the regulatory maximum cannot be derived by that comparison for the title-insurance industry. The study conducted for the Department by consulting economist Birny Birnbaum (*An Analysis of Competition in the Title Insurance Industry* (Dec. 2005) (*Competition Report*)) concludes that there is not a reasonable degree of competition in the relevant title insurance markets and cites as evidence of this fact the high returns reported by title insurance companies. Accordingly, it would be improper for these regulations to rely on the observed returns as the regulatory standard for a fair return.

Instead, the proposed section 2357.9 is based on examination of the observed spread between the risk-free rate and other kinds of business believed to present risks comparable to those of the title insurance business. This is a widely used approach to rate-regulation. However, the exact method by which this calculation is made varies. Two issues are addressed here: determination of the group of companies whose returns will be used to calculate the risk premium and specification of the years over which the calculation is to be performed.

Insurers typically favor the use of the market returns on large publicly-traded companies and the calculation of those returns over a very long period, typically since 1926, the beginning of the data set published by Ibbotson in his annual publication, *Stocks, Bonds, Bills, and Inflation*. Others dispute the propriety of using market returns in regulations that regulate rates on the basis of SAP or GAAP accounting data, and they assert that the calculation of such returns back to 1926 is improper because of fundamental changes in the economy and investment over time.

The following table shows the impact of the choice of the period for averaging (taken from the 2006 edition of the Ibbotson publication). Between 1926 and 2005, firms listed on the Standard and Poor's 500 averaged market returns of 12.30 percent, 7.73 percent above the average risk-free rate. Between 1960 and 2005 the S&P returns averaged 11.63 percent and the risk-premium 5.23 percent. From 1976 through 2005, the S&P averaged 13.82 percent, a 6.74 percent premium.

	Income Returns				Avg Risk-Free Rate	Risk Premium
	Market Return on Large Company Stocks (S&P 500)	U.S. Treasury Bills	Intermediate-term Gov Bonds	Long-term Gov Bonds		
1926-2005	12.30	3.75	4.75	5.22	4.57	7.73
1960-2005	11.63	5.59	6.60	7.00	6.40	5.23
1976-2005	13.82	6.10	7.27	7.87	7.08	6.74

Because the proposed regulations employ accounting, not market, data, calculation of the maximum rate of return is based on a risk-premium calculation that employs SAP returns for property-casualty insurers, which are most comparable to title-insurers among the businesses whose relevant data are available. *Best's Aggregates & Averages* reports property-casualty industry returns from 1976 to 2004 of 10.27 percent and from 1983 to 2004 of 8.02 percent. The table below compares these returns to risk-free returns.

	Property-Casualty SAP Returns	U.S. Treasury Bills	Intermediate- term Gov Bonds	Long-term Gov Bonds	Avg Risk- Free Rate	Risk Premium
1983-2004	8.02	5.26	6.70	7.49	6.48	1.54
1976-2004	10.27	6.20	7.39	7.98	7.19	3.08

The property-casualty SAP returns do not include unrealized capital gains. The 1983-2004 average unrealized capital gain is 1.82 percent before federal income tax and 1.18 percent after, assuming a tax rate of 35 percent. Adding 1.18 percent to the 1976-2004 risk premium of 3.08 percent brings the risk premium including unrealized capital gains to 4.26 percent.

A 2005 study by Swiss Re (*Insurers' Cost of Capital and Economic Value Creation: Principles and Practical Implications*) concluded that the cost of capital for U.S. property-casualty insurers was 5.6% to 7%, with the latter figure derived using a risk-premium of 4%. (*Id.* at 25, 28, 34.)

Thus, the range of possible risk-premium values lies between 5¼%-7¾%, based on S&P 500 risk premia calculated over varying periods; between 3¾%-4¾%, based on book returns of property-casualty insurers, including unrealized capital gains; and at 4%, based on the Swiss Re study of property-casualty insurers' cost of capital. A risk premium of 6% lies well within these ranges and has been selected for use in section 2357.9.

At current risk-free rates, this risk premium would yield a rate of return of about 11%.

5 Income taxes

The maximum rate of return is an after-tax rate. Title insurers will have to pay federal income tax on their profit, and UTCs and controlled escrow companies will have to pay both state and federal income taxes. The proposed regulations therefore gross up the profit term with income tax factors.

This operation is performed by dividing the profit factor by the state and federal income tax factor in the preliminary report charge and escrow charge formulae. (§§ 2357.7, 2357.11, 2358.6). Because title insurers do not pay state income tax (see Cal. Const., art. XIII, § 28, subd. (f)), the profit factor for the maximum policy charge employs solely the federal income tax factor (§§ 2357.14, 2357.15).

The tax factors could be measured in two alternative ways, employing the statutory marginal tax rates or calculating the effective tax rates. A review of title insurer annual statements determined that companies consistently paid a smaller percentage of their pre-tax profit to income taxes than the statutory percentage, apparently reflecting the availability of tax credits and other adjustments to their tax liability. Since the regulations should allow for taxes actually expected to be paid, and since

statutory tax rates appear to systematically overstate actual tax payments, the proposed regulations provide for the determination of effective tax rates from the statistical plan and annual reporting of financial data and the use of those effective tax rates in the regulatory formulae.