Tax Reform's Impact On Insurance Industry Stock Returns

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ABSTRACT

This article analyzes the market response of insurers' stock returns to the formulation, debate, and enactment of the Tax Reform Act of 1986. Provisions of the Tax Reform Act portended increases in the effective tax rates of insurers despite the proposed lowering of marginal rates. The stock prices of insurers reacted negatively in the formulation, debate, and Committee mark-up phases of the legislative process. Significant abnormal returns were not evidenced in the enactment phase.

Several provisions of the Tax Reform Act of 1986 (hereafter referred to as TRA '86) boded unfavorable consequences for insurers. The repeal of the 20 percent special life insurers' deduction, limitations of loss reserves to the present value of unpaid losses, reduction in the deductibility of unearned premiums, taxation of a portion of certain dividends (those subject to the intercorporate exclusion) and previously tax-exempt securities, and the potential tax on inside buildup, were aimed directly at the operations of insurers.[1] Stockholders' expectations could have been adversely impacted by the announcement of any one or combination of these provisions as they progressed through the legislative process. The purpose of this article is to

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[1] These provisions were specifically designed to raise the effective tax burden of insurers by offsetting much of the favorable impact of lower marginal tax rates. For example, see Roberts (1986); Gleeson and Lenrow (1987a); Gleeson and Lenrow (1987b); "Tax Reform Hikes P-C Bill §7.8 B" (1986); and *The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity*, (1985).

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analyze the market response of insurers' stock returns to the formulation, debate, and enactment of TRA '86.

Data and Methodology

The sample analyzed in this study consists of 19 large, publicly-traded insurers.[2] Each company in the final sample successfully completed the following screening process. First, a sample participant had to have an uninterrupted return series for the entire analysis period. Second, the shares of a sample company had to be actively traded so that non-synchronous price data were not an important problem. Third, a sample participant could have no major firm-specific announcements during the estimation and event intervals. The screening for firm-specific announcements entailed a search of the *Wall Street Journal Index* beginning six months prior to an event date and extending through the analysis period. When a relevant firm-specific event occurred, the company was eliminated as a sample observation.

The well-known Fama, Fisher, Jensen, and Roll methodology is used to estimate the market's reaction to new information about TRA '86.[3] The Fama, et.al. approach facilitates the construction of statistical tests that can reveal significant departures of actual returns from those predicted by the single-index return generating model. Once a sample has been screened for return variations due to specific firm effects, the remaining residual (abnormal) returns are attributable to the event being studied.

The event interval analyzed in this article extends from 60 days prior to a particular event date (ED-60) to 60 days after the event date (ED+60). Furthermore, each of the four event windows (EWs) was separated into several sub-phases around its specific event date. The reasoning behind this approach is as follows. The content of pending tax legislation begins to leak to the public prior to the scheduling of hearings and other official proclamations. Hence, adjustments of returns may begin to occur in the pre-announcement and pre-enactment phases of the event period. As investors come to anticipate specific changes in the tax code, they act on their expectations and returns begin to adjust before the event's official announcement. Return adjustments following the announcement and passage of TRA '86 were evaluated in terms of the significance of cumulative residuals over the period ED+1 to ED+60. The event windows considered in this article are listed in Table 1.

The announcement of President Reagan's tax reform proposal and

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[2] Classified by Compustat Industry Codes, our final sample included ten life-health insurers and nine property-liability companies. The authors will gladly furnish a list of the insurers examined in this study to any reader desiring this information. The requests can be addressed to any of the authors c/o Box 27, MTSU, Murfreesboro, TN 37132.

[3] See Fama, et.al. (1969); Brown and Warner (1980); and Brown and Warner (1985).

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Table 1
Test Statistics for the
Standardized Cumulative Prediction Errors

Event Window (EW)	Event Date	Description of Event Window	ED-60 To ED-1	ED-1 To ED+1	ED	ED+1 To ED+60
EW-1	5/27/85	Treasury releases its plan (Treasury I) for reforming the federal tax system. President Reagan announces his reform proposal (Treasury II) and House Ways and Means Chairman Rostenkowski agrees to cooperative with the President to revise tax code. Treasury I and II include qualified reserve accounting (QRA), removal of special life deduction, taxation of inside buildup, and limitations on reserve deductions.	-1.754+	-1.410	0.090	-3.745*
EW-2	9/02/85	Mark-up of H.R. 3838 bogs down in Ways and Means Committee over several controversial provisions. Rostenkowski breaks deadlock by compromising on certain key issues. Ways and Means Committee completes its mark-up hearings and bill clears committee. New controversies arise over QRA. Section 1022 is revised along with the introduction of a new minimum tax on insurers.	-2.445**	0.122	-2.198+	0.999
EW-3	5/07/86	After a day of open mark-up and a week of closed door sessions, Senate Finance Committee passes a tax reform bill. The Committee reverses its stand on QRA. Inside buildup is resolved.	-4.074*	-0.921	-0.056	-3.113*
EW-4	10/22/86	President Reagan signs the Tax Reform Act into law.	-0.670	-0.953	-1.553	-0.7995

Note: *,**, and + are significant at the 1, 5, and 10 percent level, respectively, in a two-tailed test.

Chairman Rostenkowski's agreement to work with the Administration to draft a tax package are the main focuses of EW-1. Both Treasury I and II included modifications to the tax code that had important implications for insurers. For instance, both versions had qualified reserve accounting (QRA), removal of the special life insurers' deduction, taxation of inside buildup, and limitations on reserve deductions. The Ways and Means Committee's counter-proposal (H.R. 3838) to Treasury II and the completion of the mark-up process in the House are encompassed by EW-2. In this event window, new controversies arose over QRA and Section 1027 was added to the draft legislation. In addition, Section 1022 was substantially revised and a new minimum tax proposed for insurers. EW-3 embraces the later stages of the stormy Packwood Committee hearings when several amendments were added to the bill. During this interval, the Senate Finance Committee reversed its stand on QRA and resolved the inside buildup issue. The period around the enactment date of October 22, 1986 is included in EW-4.

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Empirical Findings

The test statistics for the cumulative prediction errors for each sub-phase of the four event windows are reported in the last four columns of Table 1.[4] The null hypothesis of zero cumulative prediction errors was rejected in three of the four ED-60 to ED-1 periods. In the first window, the Z-statistic was significant at the 10 percent level, while in EW-2 and EW-3, it was significant at the .05 and .01 levels, respectively. Significant negative residuals also occurred on the event date of EW-2 and for the ED+1 to ED+60 periods in EW-1 and EW-3.

Insurers realized negative cumulative residuals over the 60 days prior to the Reagan-Rostenkowski accord. The modifications of the tax code offered in the Administration's proposal portended increases in the effective tax rates of insurers, even with the proposed lowering of marginal rates. Particularly troubling for the industry were the provisions to repeal the 20 percent special life insurers' deduction, the limitations on the deductibility of unearned premiums, and the implementation of QRA for loss reserves and expenses. All of these items were in the original Treasury plans. In addition, life insurers were surprised by and bitterly opposed to the taxation of inside buildup. The findings for ED-60 to ED-1 indicate that the market began to sense the changing mood about tax reform prior to the accord and reacted unfavorably. Uncertainty about the form and extent of the proposed changes sustained the cumulative negative impact through the post-event phase.

The negative residuals for EW-2 center on certain key issues whose fates vacillated during the turbulent Ways and Means Committee hearings. Perhaps the most important was the QRA proposal. Treasury Plans I and II had proposed this accounting system as a means of more accurately measuring the current value of loss deductions. The property-liability sector of the industry strenuously opposed the concept of discounting loss reserve deductions and appeared to have successfully made its case in early hearings on the subject (*Implications of H.R. 3838*, p.115). At one point virtually no support for QRA existed among members of the Ways and Means Committee. But in an unexpected reversal the Committee included Section 1027 in the draft bill (H.R. 3838). This section provided for a study by the Treasury and the Joint Committee on Taxation of the tax treatment of property-

[4] The Z-statistic described in Brown and Warner (1985) is used to test the null hypothesis that TRA '86 did not uniquely impact the cumulative residual returns of insurers. The prediction error or residual return is defined as $PE_t = R_{jt} - (a_j + b_j R_{mt})$, where R_{jt} is the daily rate of return on an insurer's stock j in period t, R_{mt} is the daily rate of return on the Center for Research on Security Prices equally weighted market portfolio in period t, and a_j, b_j are the OLS estimates of the intercept and slope coefficients of the market model. The estimation period for the market model regressions extended from day ED-180 to day ED-10. Prediction errors were estimated for each security j for each day and then cumulated over the entire event period.

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liability loss reserves. While this provision seemed innocent enough, many in the industry were suspicious of its motives, because the General Accounting Office and the Treasury had already examined this issue for more than two years. The feeling that Section 1027 was merely a surreptitious means of adopting QRA was pervasive and influenced market expectations unfavorably.[5]

Two other moves by the Ways and Means Committee stunned the market also. First, the Committee went beyond the Reagan proposals by substantially limiting the benefits property-liability insurers received from tax-exempt securities. Section 1022 of the draft bill placed limits on the deduction of loss reserves as an offset to tax-exempt interest and dividend income. Second, Representative Stark, head of the Committee's task force on insurance, abruptly proposed a new minimum tax (Section 1023) on property-liability insurers. He described the new tax as a means of prodding the industry into cooperating with Committee efforts to revamp the taxation of insurers (*CQ Almanac*, 1985, p. 486). This provision was necessitated, according to Stark, by the Committee's inability to grapple with this complex area of taxation in the time allotted.

EW-3 encompasses the critical period during the mark-up and final reporting of the Senate version (Senate Report No. 99-313) of the tax reform bill. Large negative residuals occurred in the test interval ED-60 to ED-1. Under strong industry protest, the Senate did an about-face and provided for the discounting of loss deductions by property-liability insurers. For EW-3, cumulative residuals remained negative through the post-event interval.

The null hypothesis of zero prediction errors could not be rejected in any of the sub-phases of EW-4. By this time, the outcome of TRA '86 was anticipated by the market and the probability of its passage rose to one. Unanticipated announcements about TRA '86 did not occur in the period encompassing the conference committee deliberations and final enactment date.

Summary and Conclusions

The null hypothesis tested in this article is that the stock returns of insurers did not react uniquely to the announcement, formulation, and passage of TRA '86. That the market responded negatively to the special treatment of insurers in TRA '86 is the counter supposition. Tests were conducted for four time intervals for each of four event windows.

Investors in the shares of publicly-traded insurers responded negatively to the Reagan tax reform proposals (EW-1). The Administration's plan

[5] See the testimony of Lowell R. Beck, the President of the National Association of Independent Insurers, before the Committee on Banking, Housing and Urban Affairs, *Implications of H.R. 3838, The Tax Reform Act* (1986, pp. 114-118).

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eliminated or modified several provisions of the tax code directly applicable to the operations of insurers. Projections at the time showed insurers realizing an increase in their effective tax burden even with the reduction in marginal corporate tax rates. When the Ways and Means Committee became sympathetic to tax reform, the market reacted unfavorably.

The results for EW-2 center on the controversy over QRA. Initially the concept of discounting reserve deductions lost support in the Ways and Means Committee. Later, however, the Committee flip-flopped and included Section 1027 in the draft bill. This section called for a new study of QRA and was perceived by some as a way to revive what appeared to be a dead issue. Two other changes buttressed the market's negative response in this window. First, further reductions were suggested in the benefits that property-liability insurers received from tax exempt interest and dividends and second, a stiff new minimum tax was proposed for these companies.

The negative residuals in EW-3 coincide with the Senate Finance Committee's unexpected reversal on QRA. This effect was reenforced by the resolution of uncertainty over the disposition of tax-exempt interest and dividends and the minimum tax. That is, even though the economic impact of these changes remained the same, their probability of occurrence rose to unity.

Cumulative residuals were not significantly different from zero in EW-4. The market perceived the provisions of TRA '86 as finalized and its passage certain.

References

Brown, Stephen and Jerold Warner, 1980, Measuring Security Price Performance, *Journal of Financial Economics*, 8: 205-258.

Brown, Stephen and Jerold Warner, 1985, Using Daily Stock Returns: The Case of Event Studies, *Journal of Financial Economics*, 14: 3-31.

Congressional Quarterly Almanac, 1985.

Fama, Eugene, Lawrence Fisher, Michael Jensen, and Richard Roll, 1969, The Adjustment of Stock Prices to New Information, *International Economic Review*, 10: 1-21.

U.S. General Accounting Office, 1985, *Congress Should Consider Changing Federal Income Taxation of the Property/Casualty Insurance Industry*, GAO/GGD-85-10. (Washington, D.C.: U. S. Government Printing Office).

Gleeson, Owen and Gerald Lenrow, 1987a, Tax Reform: The Impact on Income Statements, *Best's Review*, 7: 12-15 and 85-88.

Gleeson, Owen and Gerald Lenrow, 1987b, Tax Reform: The Impact on Investment Strategies and Pricing, *Best's Review*, 8: 17-22 and 108-112.

Implications of H. R. 3838, The Tax Reform Act: Hearings Before the Committee on Banking, Housing, and Urban Affairs, United States Senate, February 4-6, 1986.

Lincoln, Victor, 1989, The Effect of Tax Reform on Underwriting, *CPCU Journal*, 42: 42-57.

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Roberts, Jon, 1986, Waiting for the Levy, *Best's Review*, 9: 18-22 and 114-116.

Tax Reform Act of 1986, Report of the Committee on Finance, United States Senate, May 29, 1986.

Tax Reform Act of 1985, Report of the Committee on Ways and Means, House of Representatives on H.R. 3838, December 7, 1985.

Tax Reform Hikes P-C Bill $7.8 B, *National Underwriter*, 93: 61 and 64.

The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity, May, 1985.

U. S. Code Congressional and Administrative News, v. 5, 99th Congress, Second Session, 1986.

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