

The Effect of Proposition 103 on Insurers: Evidence from the Capital Market

Samuel H. Szewczyk

Raj Varma

Abstract

In May 1989, the California Supreme Court upheld Proposition 103, an insurance reform measure mandating large cuts in property-liability insurance rates. However, the court also ruled that the regulation proposed by Proposition 103 may not deny insurers an adequate return. This study examines the effect of Proposition 103 on the common stock values of property-liability insurers around both the passage of the measure in the 1988 election and the court decision in 1989. The results indicate that the capital market believes Proposition 103 to be an unfavorable development for insurers.

Introduction

On November 8, 1988, California voters passed an insurance-reform ballot initiative known as Proposition 103. In essence, the initiative was a populist response to rising automobile insurance premiums in a state where property-liability insurance rates were already among the highest in the nation. Proposition 103's most controversial provision mandates a minimum 20 percent reduction in property-liability insurance premiums from their November 1987 levels. An exemption from the rate cut and any future rate increases were to be permitted only if an insurer was substantially threatened by insolvency. On May 4, 1989, the California Supreme Court upheld the constitutionality of the rate rollback but overturned the insolvency provision and ruled that insurers were entitled to an adequate return. Comments in the financial press indicate that Proposition 103 has evoked a considerable debate about its effect on the property-liability insurance industry.

Samuel H. Szewczyk is Assistant Professor of Finance at Drexel University. Raj Varma is Assistant Professor of Finance at the University of Delaware.

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Opponents of Proposition 103 have deemed it to be one of the most expensive political defeats any American industry has faced. This view is based on several features of Proposition 103 (see Gross, 1989; and Schmitt and Steptoe, 1988). First, the 20 percent rollback in premiums is estimated to produce an annual loss of \$6 billion for the insurance industry. Second, revenues earned by the property-liability industry are further reduced because Proposition 103 introduces more competition into the insurance market by allowing California banks to act as insurance brokers or agents. Third, because of the proposition, the insurance industry is no longer exempt from the state's antitrust laws. This would effectively curtail the widespread practice of exchanging and pooling actuarial and other data. Insurers contend that exchanging information is useful in setting accurate and fair rates. Moreover, they argue that removal of the exemption threatens the soundness of medium-size companies which depend on pooled actuarial data to make sound estimates of risk.

An alternative view expressed by some groups is that the regulatory changes instituted by Proposition 103 may ultimately benefit the insurance industry. For example, some industry experts argue that by injecting the adequate return standard into Proposition 103, the decision rendered by the state high court is favorable to insurers in California. As most California auto insurers claim to be earning little or no return in the state (see Hill and Celis, 1989), the adequate return standard provides a loophole that may largely negate the 20 percent rate reduction provision. Moreover, some observers believe that under Proposition 103 insurance rates will increase rather than fall if insurers can demonstrate that their current rate structure deprives them of an adequate return.¹ According to Standard and Poor's, the adequate return clause was a positive development for insurance firms operating in California. Indeed, as a result of the court decision, the rating agency removed two large California insurers, Safeco and Allstate, from its credit-watch list (see Schmitt and Wells, 1989).

While the debate on the effects of Proposition 103 on the insurance industry continues, no empirical evidence has been presented on how the California initiative affected the shareholders of property-liability insurers. This study examines share price reactions of property-liability insurers around key dates surrounding Proposition 103. The findings indicate that Proposition 103 is viewed by the capital market as an unfavorable development for insurers.

¹ In a representative expression of this view, Allan Fulkerson, Chairman of Century Shares Trust notes, "The court's ruling said that insurers are entitled to make a reasonable rate of return. Now that can be defined in a whole lot of different ways." According to Fulkerson, most insurers would be happy to "earn a reasonable rate of return." He adds "that would probably be better than what they are doing. So, selectively, the ruling could lead to rate increases—not decreases." See Welling (1989).

Data and Research Methods

A preliminary sample of firms most likely to be affected by the consequences of Proposition 103 is identified from the list of "The Two Hundred Largest American Property-Casualty Companies" published in *Best's Key Rating Guide* (1988)² and from articles discussing the California initiative in the *Wall Street Journal* (WSJ). The sample is restricted to property-liability firms (or their parent companies) listed on the New York Stock Exchange (NYSE) or the American Stock Exchange (ASE) and to firms trading in the Over-The-Counter (OTC) market with closing prices recorded in the "NASDAQ National Market Issues" pages of the WSJ.³ This restriction limits the sample to securities having sufficient trading volume to ensure the availability and accuracy of daily stock prices over the periods examined. The final sample consists of 42 firms of which 17 are identified by Standard and Poor's, Moody's, or the WSJ as having a large exposure to the California property-liability insurance market.⁴ For comparison purposes, a sample of non-insurance firms is constructed by randomly selecting 25 firms from a list of non-financial firms on the 1988 Daily Returns File of the Center for Research in Security Prices.

Event test methodology is used to evaluate the market response to the passage of Proposition 103 in the November 8, 1988 election and to the May 4, 1989 California State Supreme Court decision on its constitutionality.⁵ The election and the court decision establish day zero in the event tests. Abnormal returns are calculated for 61 trading days surrounding each event. The abnormal return (AR) for each security i on day t is the deviation of security i 's realized return (R_{it}) from an expected return generated by the market model:

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt}) \quad (1)$$

The coefficients α_i and β_i are the OLS estimates of security i 's market model parameters obtained from an estimation period of 110 consecutive trading days beginning 140 trading days prior to the event. The S & P 500 index is used to measure the market return over day t (R_{mt}).

For a sample of N securities, the average abnormal return (AAR) on day t is calculated as:

²Moore and Schmit (1989) also use *Best's Review* to identify property-liability insurance firms affected by the Risk Retention Act of 1986.

³Many of the property-liability firms listed by *Best's Key Rating Guide* are subsidiary companies of parent firms. For example, the 22nd largest property-liability insurer listed by *Best's*, Maryland Casualty, is a subsidiary of American General. In these cases, the parent firm's stock prices are used in the analysis.

⁴Firms with a large California exposure were identified by *Standard and Poor's Creditweek* November 14, 1988 and December 5, 1988, by Moody's in the *Dow Jones News Wire* November 17, 1988 and by the *Wall Street Journal* November 11, 1988. The percent of total premiums exposed to the California market averaged 30 percent among the 17 firms.

⁵Schwert (1981) discusses the usefulness of financial data in examining the wealth effects of regulation.

$$AAR_t = \frac{1}{N} \sum_{i=1}^N AR_{it} \quad (2)$$

Abnormal performance is also evaluated over specified intervals of trading days. The cumulative average abnormal return (CAAR) over an interval beginning on day T_1 and ending on day T_2 is given by:

$$CAAR_{T_1, T_2} = \sum_{t=T_1}^{T_2} AAR_t \quad (3)$$

To control for heteroskedasticity, test statistics are based on standardized abnormal returns. The standardized abnormal return (SAR) for security i on day t is:⁶

$$SAR_{it} = AR_{it}/S_{it} \quad (4)$$

where

$$S_{it} = \left[V_i^2 \left\{ 1 + \frac{1}{ED} + (R_{mt} - R_m)^2 / \sum_{i=1}^{ED} (R_{mt} - R_m)^2 \right\} \right]^{1/2} \quad (5)$$

In the above equation, V_i^2 , is the residual variance of security i 's market model regression, ED is the total number of days in the regression's estimation period, R_m is the average market return over the estimation period.

To test the hypothesis that the average standardized abnormal return for day t is equal to zero, the following t -statistic is computed:

$$t = ASAR_t / SD \quad (6)$$

where

$$ASAR_t = \sum_{i=1}^N SAR_{it} \quad (7)$$

is the average standardized abnormal return for N securities across day t . To control for possible cross-sectional correlation induced by the clustering of industry returns in calendar time, a standard deviation (SD) based on a time series of average standardized abnormal returns is calculated:

$$SD = \left[\sum_{t=-140}^{-31} (ASAR_t - \overline{ASAR})^2 / 110 \right]^{1/2} \quad (8)$$

where

$$\overline{ASAR} = \frac{1}{110} \sum_{t=-140}^{-31} ASAR_t \quad (9)$$

⁶The statistical tests chosen in this article are based on simulation results for several event study methodologies explored by Brown and Warner (1985). The procedure used for standardizing daily abnormal returns (equations 4 and 5) has been followed in various studies including Linn and Pinegar (1988).

To test the hypothesis that the average cumulative standardized abnormal return over a specified interval of trading days is equal to zero, the following t-statistic is computed:

$$t = \text{ACSAR}_{T_1, T_2} / \text{SD} \quad (10)$$

where

$$\text{ACSAR}_{T_1, T_2} = \frac{1}{N} \sum_{i=1}^N \sum_{t=T_1}^{T_2} \text{SAR}_{it} / \sqrt{T_2 - T_1} + 1 \quad (11)$$

is the average cumulative standardized abnormal return (ACSAR) from day T_1 to day T_2 . The t-statistics in (6) and (10) have 109 degrees of freedom.

Empirical Results

Table 1 presents average abnormal returns (AAR) and cumulative average abnormal returns (CAAR) measured around the November 8, 1988 vote on Proposition 103 in the California election. Abnormal stock price performance is reported for three samples: the base sample of 17 property-liability insurers with a large business exposure to the California market; a comparison sample of 25 other property-liability insurers; and a second comparisons sample of 25 randomly selected non-insurance firms.

As shown in the footnotes of Table 1, favorable pre-election poll results and Proposition 103 precipitated events surround the election date. Thus the totality of the market's response may best be captured by examining abnormal stock price performance across intervals of trading days surrounding November 8. Cumulative average abnormal returns are estimated for a day $t = -1$ to day $t = 1$ interval and for a wider day $t = -10$ to day $t = 10$ interval. Across both intervals, insurers record negative CAARs that are significant at the 0.10 or better level. Over the day $t = -10$ to day $t = 10$ interval, the CAAR for 17 insurers with a large California exposure is -3.433 percent (t-statistic = -2.81) and -3.465 percent for the 25 other insurers (t-statistic = -2.58). Over 75 percent insurers are associated with negative abnormal returns. Whereas the difference between abnormal returns of the two insurance samples is not statistically significant, the abnormal return for each insurance sample is significantly different, at the 0.01 level, from the abnormal return for non-insurance firms.

The abnormal stock price behavior around the May 4, 1989 court ruling on Proposition 103 is presented in Table 2. Event tests around May 4 are cleaner than those for the November election because the noise created by the campaign issues of the 1988 election is absent. In addition, the court decision cleared up any uncertainties concerning the provisions of Proposition 103. A large stock price reaction is recorded on May 4 by insurers with a large California exposure. The AAR for these 17 firms is -3.286 percent (t-statistic = -4.43) with 88 percent of the firms posting negative abnormal returns. The AAR for the other insurers on May 4 is negative but not statistically significant. However, significant abnormal stock price performance is

Table 1

Percentage Average Abnormal Returns (AAR), and Cumulative Average Abnormal Returns (CAAR)
Around the November 8, 1988 Election Date for Insurers and Non-insurance Firms.

Calendar Day	Event Day	Insurers with a Large California Exposure (n=17)			Other Insurers (n=25)			Non-insurance Firms (n=25)		
		AAR	t-Statistic	Percentage Negative	AAR	t-Statistic	Percentage Negative	AAR	t-Statistic	Percentage Negative
10/25 ^a	-10	-0.199	-0.42	64.7	-0.099	-0.25	56.0	-0.872	0.16	60.0
11/01	-5	0.266	0.46	52.9	0.032	0.22	56.0	0.215	0.64	52.0
11/02 ^b	-4	-0.532	-1.39	70.6	-0.721	-2.08	72.0	-0.236	0.70	40.0
11/03	-3	0.925	3.26	35.3	0.124	-0.15	56.0	-1.536	-0.58	56.0
11/04	-2	-0.335	-1.17	64.7	-0.424	-1.21	52.0	1.488	1.73	36.0
11/07 ^c	-1	-0.741	-2.63	76.5	-0.770	-2.54	64.0	-0.072	-0.56	60.0
11/08 ^d	0	0.253	-0.34	52.9	-0.151	-0.67	68.0	0.982	0.15	52.0
11/09 ^e	1	-0.479	-1.23	82.4	0.122	0.16	40.0	-1.862	-0.97	60.0
11/10 ^f	2	1.071	1.66	64.7	0.089	-0.51	48.0	1.418	0.63	52.0
11/11 ^g	3	-1.078	-2.93	82.4	-0.508	-1.65	56.0	0.320	1.69	24.0
11/14	4	-0.765	-2.04	70.6	-0.168	-0.52	44.0	-0.843	-0.89	64.0
11/15 ^h	5	0.002	0.42	47.1	-0.252	-0.91	64.0	0.852	0.25	60.0
11/22 ⁱ	10	-0.404	-0.76	58.8	-0.265	-0.42	52.0	1.493	-0.24	48.0
Calendar Interval	Event Interval	CAAR	t-Statistic	Percentage Negative	CAAR	t-Statistic	Percentage Negative	CAAR	t-Statistic	Percentage Negative
10/25 to 11/22	-10 to 10	-3.433	-2.81	76.5	-3.465	-2.58	76.0	0.529	-0.93	56.0
11/07 to 11/09	-1 to 1	-0.967	-2.43	82.4	-0.798	-1.76	72.0	-0.954	-0.80	64.0

- ^a Proposition 103 leads all other initiatives in polls, *Los Angeles Times*, October 25, 1988.
- ^b Highly regarded consumer advocate Ralph Nader urges voters to support Proposition 103; Proposition 103 leads all other insurance initiatives on ballot in polls, *Los Angeles Times*, November 2, 1988.
- ^c A new poll on the insurance initiative contests indicated that Proposition 103 remains in the lead, with 49 percent of those surveyed supporting it, 37 percent opposed and 14 percent undecided. Poll results assailed as "hopelessly inaccurate" by the insurance industry. *Los Angeles Times*, November 5, 1988.
- ^d Election date on which Californians voted on Proposition 103.
- ^e Tally has Proposition 103 winning by 200,000 votes. Consumer groups from 30 states indicate an interest in launching a voter revolt over insurance, *Dow Jones News Wire*, November 9, 1988.
- ^f Nine lawsuits are filed in L.A. County Superior and California Supreme Courts by insurers to block implementation of Proposition 103 reforms, *Los Angeles Times*, November 10, 1988. Several insurers plan to withdraw from California markets, *Los Angeles Times*, November 10, 1988. California High Court issued a stay blocking implementation of all provisions of Proposition 103, *Dow Jones News Wire*, November 10, 1988.
- ^g Standard and Poor's informs that if Proposition 103 survives the legal challenges, ratings of a large number of insurers will be lowered, *Dow Jones News Wire*, November 11, 1988.
- ^h California Attorney General asked the Supreme Court to lift or nullify an emergency order blocking the implementation of Proposition 103, *Wall Street Journal*, November 15, 1988.
- ⁱ Eleven insurers seek exemption from Proposition 103, *Dow Jones News Wire*, November 22, 1988.

Table 2
 Percentage Average Abnormal Returns (AAR), and Cumulative Average Abnormal Returns (CAAR)
 Around the May 4, 1989 California Supreme Court Ruling on Proposition 103 for Insurers and Non-insurance Firms.

Insurers with a Large California Exposure (n=17)					Other Insurers (n=25)			Non-insurance Firms (n=25)		
Calendar Day	Event Day	AAR	t-Statistic	Percentage Negative	AAR	t-Statistic	Percentage Negative	AAR	t-Statistic	Percentage Negative
4/20	-10	-0.526	-0.67	76.5	-0.272	-0.58	64.0	-0.607	-0.69	72.0
4/27	-5	1.359	2.12	11.8	0.359	0.40	36.0	0.871	1.92	44.0
4/28	-4	0.506	0.20	58.8	-0.277	-0.40	60.0	-0.184	-0.61	60.0
5/01	-3	0.960	1.50	35.3	0.196	0.14	52.0	-4.326	-2.86	56.0
5/02	-2	-0.771	-1.37	82.4	-0.199	-0.57	56.0	0.084	1.20	54.2
5/03	-1	0.005	-0.54	64.7	-1.075	-1.91	92.0	0.746	2.72	48.0
5/04 ^a	0	-3.286	-4.43	88.2	-0.375	-0.86	64.0	-0.211	-0.74	44.0
5/05 ^b	1	-0.413	-0.61	64.7	-0.394	-0.77	60.0	0.189	0.82	32.0
5/08	2	-0.950	-1.76	58.8	-0.758	-1.28	64.0	-0.969	-1.22	60.0
5/09	3	-0.679	-0.94	70.6	-0.488	-0.63	64.0	0.095	0.43	44.0
5/10	4	-0.014	0.07	47.1	-0.302	-0.54	72.0	0.744	1.39	40.0
5/11	5	0.001	0.25	52.9	0.284	0.46	44.0	0.141	-0.11	60.0
5/18	10	-0.254	-0.27	58.8	-0.275	-0.50	60.0	0.933	0.32	44.0
Calendar Interval	Event Interval	CAAR	t-Statistic	Percentage Negative	CAAR	t-Statistic	Percentage Negative	CAAR	t-Statistic	Percentage Negative
4/20 to 5/18	-10 to 10	-3.069	-0.94	64.7	-1.413	-0.62	60.0	-2.628	0.78	40.0
5/03 to 5/05	-1 to 1	-3.694	-3.22	100.0	-1.844	-2.05	84.0	0.725	1.62	32.0

^a California Supreme Court upholds major provisions of Proposition 103, *Dow Jones News Wire*, May 4, 1989.

^b Standard and Poor's removed two large California insurers, Safeco and Allstate, from its Credit Watch list citing the "reasonable return" rule as a positive new development for insurers in California, *Wall Street Journal*, May 5, 1989.

captured for these 25 firms over the day $t = -1$ to day $t = 1$ trading day interval surrounding May 4. Over this interval, the other insurers record a CAAR of -1.844 percent (t -statistic = -2.05) with 84 percent of these firms reporting negative abnormal returns.⁷ The portfolio of non-insurance firms reports no significant abnormal price performance on May 4 or over the trading day intervals surrounding May 4.

The evidence from the event tests show a negative market reaction to the election day approval of Proposition 103 and to the California Supreme Court decision. The systematically negative abnormal returns to the portfolios of insurers can be interpreted as an unfavorable assessment by the market of Proposition 103's impact on the insurance industry. The adequate return criteria resulting from the court decision did not alter the market's negative assessment. The results around the court decision may reflect more the expected impact of the total package of insurance reform in California rather than its main feature, the 20 percent rate cut. Moreover, the events in California had been closely followed in other states where politicians and consumer groups are considering pushing for similar insurance regulation. The significantly negative abnormal returns recorded by the 25 other property-liability insurers supports the expectation of populist insurance reforms similar to Proposition 103 being adopted in other states.

Summary and Conclusions

Considerable debate has arisen about the effect of Proposition 103 on the insurance industry in California. Insurers claim that the large cuts in rates mandated by Proposition 103 would substantially reduce revenues of the property-liability insurance industry. Others point out that regulation of the California insurance market may have positive effects. In particular, the adequate return guarantee inserted into Proposition 103 by the California Supreme Court may ultimately increase rates.

This study examined the effect of Proposition 103 on the common stock values of property-liability insurance firms. The results indicate that shareholder wealth declined in response to both the passage of Proposition 103 in the 1988 election and to the California Supreme Court's decision to uphold its major provisions. These findings suggest that the capital market perceives Proposition 103 to be an unfavorable development for property-liability insurers.

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Appendix
Property-Liability Insurers in the Sample

Firm	Exchange
Aetna	NYSE
Ahmanson H.F.	NYSE
American General	NYSE
American International	NYSE
Berkshire Hathaway ¹	NYSE
Chubb ¹	NYSE
CIGNA ¹	NYSE
CNA	NYSE
Continental	NYSE
Fireman's Fund ¹	NYSE
FPL Group ¹	NYSE
General Re	NYSE
GEICO ¹	NYSE
Home Group ¹	NYSE
Lincoln National	NYSE
Orion Capital	NYSE
Reliance Group	NYSE
Progressive Group ¹	NYSE
Sears ¹	NYSE
Teledyne	NYSE
Transamerica ¹	NYSE
Travelers	NYSE
USF&G	NYSE
Zenith National ¹	NYSE
American Bankers	OTC
Argonaut Group	OTC
Cincinnati Financial	OTC
Employers Casualty	OTC
Farmers Group ^{1, 2}	OTC
Foremost Corp America	OTC
Fremont General	OTC
Hanover Insurance	OTC
Hartford Steam ¹	OTC
Independent Insurance	OTC
Kemper ¹	OTC
Mercury General ¹	OTC
Ohio Casualty	OTC
Old Republic International	OTC
Safeco ¹	OTC
St Pauls	OTC
Seibels Bruce	OTC
Twentieth Century ¹	OTC

¹ Identified by Moody's, S&P's, and/or the *Wall Street Journal* as having a large California exposure.

² After the November 8th elections, Farmers Group was acquired by BAT Industries which is listed on the ASE. BAT Industries' stock prices were used in the tests of the May 4th court decision.

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