Antitrust Exemptions and Competition in Insurance Markets:
Reactions to the McCarran-Ferguson Act

Abstract

The insurance industry is exempt from certain aspects of federal antitrust statutes. Initially this exemption rested on a Supreme Court ruling that insurance was not interstate commerce (Paul v. Virginia, 1868) and should be regulated by the states. In 1945, passage of the McCarran-Ferguson Act (McCarran) codified the antitrust exemption. Since then, the United States Congress has periodically considered repealing McCarran to remove the federal antitrust exemption. The exemption is intended to foster competition in insurance markets. However, critics claim it leads to anticompetitive behavior. Despite more than six decades of spirited debate concerning McCarran’s merits, no empirical study has analyzed its effect on insurer market values. In this study, we empirically test the effect of McCarran on competition in insurance markets by measuring insurance company returns across segments of the industry around the time it became law. Our results are consistent with McCarran increasing competition in insurance markets.

JEL Classification Codes: G22, G28, K21, K23

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The insurance industry is exempt from certain aspects of federal antitrust statutes. Initially this exemption rested on a Supreme Court ruling that insurance was not interstate commerce (Paul v. Virginia, 1868) and should be regulated by the states. In 1945, passage of the McCarran-Ferguson Act (McCarran) codified the antitrust exemption. Since then, the United States Congress has periodically considered repealing McCarran to remove the federal antitrust exemption. The exemption is intended to foster competition in insurance markets. However, critics claim it leads to anticompetitive behavior. Despite more than six decades of spirited debate concerning McCarran’s merits, no empirical study has analyzed its effect on insurer market values. In this study, we empirically test the effect of McCarran on competition in insurance markets by measuring insurance company returns across segments of the industry around the time it became law. Our results are consistent with McCarran increasing competition in insurance markets.

1. Introduction

States have historically regulated insurance companies; therefore, certain aspects of United States federal antitrust law do not apply to the business of insurance. As such, this limited antitrust exemption often draws criticism from federal lawmakers when the public becomes concerned about perceived problems in insurance markets. The history of insurance regulation is described in reference to landmark challenges to the antitrust exemption.

More recently, losses from the seven storms of the 2004 and 2005 hurricane seasons set the stage for a renewed push towards federal regulation of insurance. The combined insured

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1 Examples include special congressional investigative committees led by Armstrong (1900’s), Merritt (1910’s), and Dingle (1990’s); lawsuits brought against industry statistical agents by the United States (1940’s) and various state Attorneys General (1980’s); and passage of the McCarran-Ferguson Act in 1945. Meier (1988) describes these events in detail.

2 Hurricanes Katrina, Rita, Wilma, Charley, Ivan, Frances and Jeanne are seven of the top 10 most expensive hurricanes in U.S. history.
damage over a 14-month period was $79.1 billion.\textsuperscript{3} In addition to the financial impact of these storms, the large number of losses led to significant delays in claim payments. Hurricane Katrina posed significant problems as the losses were from wind (covered) as well as storm surge (excluded as a flood loss). Based on the presence of a very large storm surge with Hurricane Katrina, insurers denied coverage for some coastal losses under the flood exclusion. Not surprisingly, the affected consumers reacted strongly to what they perceived as poor or inadequate claims service. Some of the strongest criticism came from political leadership directly affected by Hurricane Katrina. Consumers also reacted strongly to premium increases that followed these two hurricane seasons. Driven in part by the consumer complaints voiced in the wake of this unprecedented cluster of storms, Congress considered legislation\textsuperscript{4} to repeal the McCarran-Ferguson Act of 1945\textsuperscript{5} (hereafter referred to as “McCarran”) in 2007.

In 2009, Congress again considered repeal of McCarran as part of pending healthcare reform legislation. In this case, repeal is limited to health insurance and medical professional liability insurance. Those in Congress seeking to repeal McCarran predictably claim it facilitates anticompetitive behavior contributing to recent increases in the cost of healthcare. However, rather than valid empirical evidence, they offer conjecture and rhetoric to support this position.

In evaluating criticism levied against McCarran, it is important to note that McCarran permits several activities conducted by insurance companies that would otherwise be illegal or subject to scrutiny under the federal antitrust laws. Perhaps the most significant consequence of the Act is that it permits insurers to pool data through independent statistical agents that produce


\textsuperscript{4} Examples of legislation include the “Insurance Industry Competition Act of 2007” (H.R. 1081/S. 618) and the “National Insurance Act of 2007” (H.R. 3200/S.40).

advisory loss costs to aid insurers in the ratemaking process. It also allows standardization of risk classification and policy forms, and joint underwriting ventures. Proponents argue these functions benefit consumers by promoting competition, financial strength, and efficiency in insurance markets (Powell, 2008). They claim the limited antitrust exemption facilitates creation of new insurance companies and syndication of underwriting efforts, increasing competition among insurers.

In opposition to McCarran, some policymakers continue to question the efficacy and appropriateness of McCarran. Some claim McCarran facilitates anticompetitive behavior. For example, in a 2007 Senate Judiciary Committee meeting, Senator Trent Lott argued that McCarran not only “allowed insurers to engage in anticompetitive behavior” but also that “there was no justification to exempt the insurance industry from federal oversight.”

Policymakers are not the only players seeking repeal of McCarran. Many life insurers and some large, multi-state, property-casualty insurers also support repeal, albeit for substantially different reasons than their political counterparts. These insurance industry activists primarily cite inefficiency of the state based regulatory system as the impetus for change. They argue that an optional federal charter for insurers would streamline the regulatory process for insurers operating in multiple states. It is important to note that the value of the antitrust exemption provided by

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7 Sen. Trent Lott (R-MS) Statement before the United States Senate Committee on the Judiciary, The McCarran- Ferguson Act and Antitrust Immunity: Good for Consumers?, March 7, 2007: “So for more than six decades, the insurance industry has operated largely beyond the reach of federal competition laws. I truly believe that the McCarran-Ferguson Act’s antitrust exemption has allowed insurers to engage in anticompetitive conduct, and I can find no justification to exempt the insurance industry from federal government oversight. Such oversight could help make certain that the industry is not engaging in anticompetitive conduct such as price fixing, agreements not to pay, and market allocations.”
McCarran is limited for life insurers with access to publicly available mortality data, and for large insurers of any charter that have sufficient internal data to facilitate ratemaking without purchasing loss cost information from independent statistical agents.

A systemic structural shift from state to federal regulation of insurance and the resulting uncertainty of antitrust status should be evaluated on the expected benefits for consumers; however, we can draw conclusions about the effects on consumers by observing effects on other stakeholders to the insurance process. While some view the insurance industry as monolithic in nature, a closer view of the market shows striking differences among the market players and the segments created by these differences serve to enhance and support the insurance market. Differences exist based on characteristics such as size, geographic scope, and focus. Thus, the likely impact of regulatory change could vary across these characteristics. While some insurers would expect to benefit from the change, other insurers could anticipate an adverse impact.

With any proposed structural change, it is important to both clearly understand the impact that change has on market participants and to test the validity of the arguments brought forth by those proposing change. The debate concerning federal and state regulation of insurance typically involves costs and regulatory resources. Missing in this debate is information from financial markets on expectations regarding changes in regulatory regimes. While recent activity focuses on movement towards federal regulation in the form of proposed legislation, there is a unique period in history that allows one to examine market reactions to anticipated regulatory shifts in the marketplace. During this period, markets anticipated a shift in regulation from the state to the federal government following the Supreme Court ruling in United States versus South-Eastern Underwriters Association (SEUA) and the shift back to state regulation following the passage of the McCarran-Ferguson Act.
As noted above, the 1944 Supreme Court ruling in U.S. versus SEUA led to a strong temporary signal of anticipated structural shift in the way that insurance was regulated. The case stemmed from price-fixing and bribery charges against an insurance association in Missouri. These abuses formed the basis of charges against SEUA of price fixing and anti-competitive behavior over a six state region. A grand jury returned legal indictments against SEUA in November of 1942 on charges to “fix and maintain fire insurance rates and monopolization of trade in fire insurance” (Meier, 1988, page 66). The Supreme Court was forced to address the issue of whether Congress intended the Sherman Antitrust Act to apply to insurance and whether insurance transactions conducted across state lines were interstate commerce (Surguine, 2000). The court found no intent for Congress to exempt the insurance industry from the Sherman Act and that insurance was interstate commerce.

Congress responded in 1945 to the Supreme Court’s decision in U.S. versus SEUA by enacting the McCarran-Ferguson Act. McCarran returned the regulatory authority over the insurance industry to the states, thereby preserving the antitrust exemption. For the states, the potential loss of premium tax revenues was one obvious motivation for their support of the McCarran-Ferguson legislation. However, the response of the insurance industry was not uniform. Insurers’ opposition to or support for McCarran varied by segment (property-casualty insurers versus life insurers) and organizational form (stock versus mutual) (Meier, 1988). Interestingly, we observe the same division by market segment in current insurance industry activities to lobby for or against repeal of McCarran.

The purpose of this article is to provide evidence on the effect of the insurance industry antitrust exemption on competition in insurance markets. Specifically, we measure market
reactions to perceived changes in major industry segments (life insurers and property-casualty insurers), on insurers of different size surrounding enactment of the McCarran-Ferguson Act.

As a preview of our analysis and results, we provide evidence about the effects of McCarran across categories of insurers by examining stock market reactions to informational events surrounding enactment of the law. Employing an event study methodology, we find that stock prices of property-casualty insurers increased with enactment of McCarran, but the effect is decreasing with respect to firm size. Further, we find no evidence of a market reaction for life insurers around the enactment of McCarran. Together, these results suggest McCarran increased competition by allowing small insurers to participate in otherwise inaccessible markets. It is important to note that smaller insurers continue to be an important source of coverage, and competition, in the U.S. property-casualty insurance market, as illustrated in Figure 1. Our results are also consistent with distinct segmentation across insurers of life versus property-casualty charter, suggesting distinct regulatory regimes may be appropriate as well.
In light of recent evidence highlighting inefficiencies from heterogeneous regulation across more than fifty U.S. jurisdictions (Pottier, 2007; Grace and Klein, 2007), our findings do not necessarily support perpetuation of the state-based regulatory system. However, they do suggest maintaining the substance of McCarran’s antitrust exemption is important for promoting competitive and innovative insurance markets.

We organize the remainder of this article as follows: in Section 2, we provide background information on insurance regulation and the series of events leading to enactment of McCarran. In

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Figure 1: Market Share by Firm Size: 1987 – 2007

Source: NAIC InfoPro Database Property and Casualty, various years

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8 These data are used with permission of the NAIC. The National Association of Insurance Commissioners does not endorse any analysis or conclusions based upon the use of its data.
Section 3, we develop hypotheses on effects of McCarran across segments of the insurance industry. In Section 4, we describe our data and methodology, and present results. We offer conclusions and suggestions for future research in Section 5.

2. Background and Context on McCarran

Several landmark court decisions and legislative acts shape the history of insurance regulation. In 1868, the U.S. Supreme Court decided in *Paul v. Virginia*\(^9\) that insurance was not interstate commerce and should be regulated at the state level. However, the Court overturned the *Paul v. Virginia* decision in 1944, ruling in *United States v. South-Eastern Underwriters Association*\(^10\) that the business of insurance constitutes interstate commerce and is therefore subject to federal jurisdiction under the U.S. Constitution.\(^11\) Among other things, the ruling effectively meant that federal antitrust laws, including the Sherman Act,\(^12\) the Clayton Act\(^13\) and the Federal Trade Commission Act,\(^14\) would henceforth be applied to the insurance industry.\(^15\)

Congress ultimately recognized application of antitrust laws would prevent insurers from jointly collecting and disseminating information that is necessary to facilitate competitive

\(^9\) *Paul v. Virginia*, 75 US 168 (1868).


\(^11\) Constitution of the United States, Article 1, Sec. 8.

\(^12\) *Sherman Act*, 15 U.S.C. §§ 1-7 (1890).


\(^15\) The Sherman Act prohibits restraint of trade and monopolistic practices. The Clayton Act prohibits anti-competitive practices; the Robinson-Patman Act (an amendment to the Clayton Act) prohibits price discrimination among customers who compete against each other. The Federal Trade Commission Act prohibits unfair methods of competition and deceptive practices.
ratemaking. Thus, in the year following the South-Eastern Underwriters Association decision, the 79th Congress enacted Public Law 15, better known as the McCarran-Ferguson Act of 1945.\textsuperscript{16} The Act provides a narrow exemption from federal antitrust laws, and pertains only to activities that: (1) constitute the “business of insurance;” (2) are “regulated by State law;” and (3) do not constitute “an agreement to boycott, coerce or intimidate or an act of boycott, coercion or intimidation.”

In practice, McCarran permits several activities conducted by insurance companies that would otherwise be prohibited or subjected to scrutiny under the federal antitrust laws. Perhaps the most significant consequence of McCarran is that it permits insurers to pool data through independent statistical agents that produce advisory loss costs to aid insurers in the ratemaking process.\textsuperscript{17} It also allows standardization of risk classification and policy forms, and joint underwriting ventures.\textsuperscript{18} Arguably, each of these functions benefits consumers by promoting financial strength, efficiency and competition in insurance markets.

Insurers are often required by states to report loss information for this purpose because advisory loss costs promote competition in insurance markets.\textsuperscript{19} Without advisory loss costs, credible ratemaking information would not be available to many small to mid-size insurers whose own loss experience is not adequate for estimating loss distributions. Of course, this argument can be extended to start-up insurance companies, or companies entering new markets or lines of


\textsuperscript{17} Statistical agencies include the Insurance Services Office (ISO – www.iso.com), Surety and Fidelity Association of America (SFAA – www.surety.org), and the National Council on Compensation Insurance (NCCI – www.ncci.com).

\textsuperscript{18} Five independent statistical agents prepare data for the property and casualty industry. They include: Insurance Services Office (ISO), the Independent Statistical Service (ISS), the National Independent Statistical Service (NISS), the American Association of Insurance Services (AAIS) and the Mutual Service Office (MSO).

\textsuperscript{19} See for example Laws of New York, ISC Article 23 §§ 2315.
coverage, as well. With no loss data of their own, these companies would have limited means by which to responsibly enter the market and compete for premiums.

A related function of the limited antitrust exemption is to allow standardization of risk classification and policy language. The broad use of standard policy forms serves at least four functions that benefit consumers. First, it ensures that data reported to statistical agents are consistent across insurance companies and can thus be accurately pooled to create advisory loss costs. This reduces insolvency risk and encourages competition from small and new companies. Second, consistent policy language simplifies price comparison for consumers, creating a more competitive market. Third, standardization makes coverage more reliable by facilitating uniformity in judicial interpretation of policy contracts. If all insurance contracts differed substantially, there would be more uncertainty for insurers and consumers on the outcomes of coverage disputes. This would reduce market efficiency and increase the cost of insurance. Finally, it would increase the cost of regulatory compliance related to approval of policy forms required in most states.

Absent McCarran, joint underwriting arrangements among insurers would be subject to antitrust scrutiny. This would affect several common insurer practices. Currently, insurers are allowed to form intercompany pools or syndicates in which multiple insurers combine to underwrite very large exposures. This function increases market capacity for large risks such as commercial property. It also fosters competition by allowing smaller insurers to underwrite sections of large accounts that would otherwise face a very thin market.

Findings of two congressional investigative committees also motivate our analysis. In discussing the evolution of insurance regulation, Meier (1988) describes the regulatory environment as moving from free markets to cartels to free markets. In the early part of the 20th
century, both segments of the insurance industry came under scrutiny as a result of failures in the marketplace. The factors that led to these failures and the ultimate findings of the two committees established to investigate these failures highlight differences between the property-casualty insurers and life insurers that are relevant to this study.

The Armstrong Committee convened in 1905 to investigate charges of extensive anti-consumer behavior in the life insurance industry. Internal concerns about Equitable Life’s lavish spending practices in the years following the death of Henry Hyde in 1899 ultimately resulted in a public investigation that went well beyond the activities at Equitable Life (Meier, 1988). The Armstrong Committee found “insurance company abuses in all facets of the life insurance business” (Meier, 1988, page 57). The Armstrong Committee identified abuses stemming from management practices (e.g., interlocking directorates, management control of mutual insurers, inappropriate business expenses and investments) and anti-consumer behavior (e.g., rebating, excessive first year premium, contract interpretations against policyowners) (Meier 1988). The Committee’s report resulted in major legislative changes in how life insurers were regulated. One significant by-product of these changes was the decision by the New York state insurance commissioner (Henry Appleton) to require foreign life insurers (i.e., not domiciled in New York state) to comply with New York state insurance regulations not just in New York, but any other state in which they operate (Meier, 1988).

The Merritt Committee met during 1910 and 1911 to examine the market failures following the great San Francisco earthquake. Direct earthquake losses were $24 million and fire losses resulting from the earthquake were $350 million. Adjusting for inflation, the fire losses were in excess of $5.4 billion 2008 dollars (2009, Insurance Information Institute). These losses resulted in a substantial number of insurer failures as well as significant increases in premium by the
companies that survived. The Merritt Committee identified aggressive, go-for-broke pricing behavior as the key factor that led to the insurance company failures. While consumers enjoyed lower prices in the short term, inadequate pricing in the face of catastrophic exposure was not (and never is) in the consumer’s long-term best interest. The insurers’ go-for-broke pricing behavior led the committee to conclude “that anticompetitive legislation had failed and that collaborative ratemaking was needed” (Meier, 1988, page 59).

Comparing the findings of the Armstrong Committee to those of the Merritt Committee illustrates an important difference between the property-casualty segment of the insurance industry and the life insurance segment. While both investigations found inappropriate behavior on the part of insurance companies, the nature of such behavior differs substantially. The Armstrong Committee found evidence consistent with willful anti-consumer acts such as cartel behavior by life insurers, whereas the Merritt Committee found evidence of excessive competition leading to inadequate prices on the part of property-casualty insurers. A plausible explanation lies in the relative difficulty in pricing these products. Life insurance companies enjoy a wealth of public data to estimate longevity and a natural limitation on catastrophic losses. On the other hand, property-casualty insurers face difficult pricing challenges stemming from lack of loss data.20 Large property losses are less frequent than life insurance losses and exhibit the potential for positive correlation leading to catastrophic outcomes (as evidenced at the time by the California earthquakes and earlier conflagrations in Boston and Chicago).

Then, as now, cooperation among property-casualty insurers to estimate prospective loss costs improves accuracy in ratemaking and facilitates competition in insurance markets (Powell, 2008). The same cannot be said for life insurers.

20 It is important to note that life insurers also face challenges in rate-making, but most agree that, unlike property-casualty insurers, sharing information among life insurers does very little to mitigate these concerns.
Empirical evidence about insurance regulation is necessary for optimal outcomes. The nature of insurance leaves it vulnerable to inefficient and harmful regulation. The political science literature describes issues in terms of salience and complexity, or more simply put, the number of people who care about the issue and the difficulty involved in understanding the issue (Gormley, 1986; Meier, 1991). Insurance regulatory issues are usually esoteric; few people are aware of them and even fewer understand them. However, one can easily point to several examples in recent history when a large percentage of the population became concerned about insurance regulation – when price increases and availability decreases. During such times, insurance issues become quite salient. Unfortunately, they remain very complex. Because of its infrequent salience in public policy, few people, including policymakers, invest the time and effort required to understand insurance. As a result, the factors that influence insurance prices are ignored or misunderstood by most people outside of the insurance industry.

Policymakers, for their part, have powerful incentives to acquiesce in the populist call to “do something” about the rising cost of insurance. Borrowing a term from Jones (1975), legislation enacted to pacify constituents, but for which there is no evidence or reasonable expectation that the legislation will be effective, is a form of “public-satisfying speculative augmentation.” In many cases, this type of regulation actually exacerbates insurance market problems.21

Increases in premium and decreases in availability of insurance occur intermittently in segments of the insurance industry. Recent notable examples include the liability crises occurring approximately every ten to fifteen years since the mid-1970’s, contractions in supply of property insurance following large insured catastrophes in the late 1980’s (Hurricane Hugo), early 1990’s (Hurricane Andrew), 2001 (September 11th terrorist attacks), and the series of seven hurricanes in

21 For examples of problematic regulation, see Cummins (2002) or Harrington (2000).
2004 and 2005. Recent spikes in healthcare costs have drawn similar attention. In the wake of each of these events, increases in price led politicians to call for repeal of McCarran to prevent collusive insurance pricing. Representative political reactions to these events include the Congressional hearings held by Representative John Dingle in the early 1990’s, those spearheaded by Representative Gene Taylor and Senator Trent Lott focusing on Hurricane Katrina and efforts championed by Senator Patrick Leahy related to healthcare reform in 2009.

In this article, we find empirical evidence supporting the hypothesis that the antitrust exemption provided by McCarran increased competition in insurance markets. Therefore, this research should interest policymakers; especially during times when insurance regulation is salient.

3. Hypotheses

In this study, we evaluate the effect of McCarran on insurance markets. Our approach is to measure the response of investors to news related to passage of McCarran. By observing investor response across types of insurers, we can draw conclusions about the effects of McCarran.

The antitrust exemption McCarran provides could potentially lead to two outcomes: competition or collusion. The expressed purpose of the antitrust exemption is to foster competition and create efficiencies in insurance markets. By allowing syndication of large risks and making summary loss cost data available to insurers that do not have sufficient proprietary data for ratemaking, McCarran decreases barriers to entry in insurance markets. All else equal, this should increase competition.

A competing hypothesis offered by some policymakers and insurance industry critics is that the antitrust exemption facilitates collusion among insurers allowing them to inflate prices
artificially. While some critics appear misinformed about the legal implications of McCarran, others offer a more involved theoretical argument. By shifting the burden of antitrust enforcement from the federal level to the state level, McCarran may reduce resources available to police collusive pricing activity (Joskow, 1992).

We empirically test these competing hypotheses by considering expected differences in market reactions to information about McCarran across insurers based on two characteristics: firm size and primary lines of business. If McCarran facilitates collusion among insurers, we would expect to see positive returns focused among large insurers with the greatest market share. Alternatively, if McCarran fosters competition among insurers by permitting the technology that allows smaller firms to compete with larger firms, we would expect to find positive returns for smaller insurers that may not have sufficient data for ratemaking and no effect for larger insurers that internally possess sufficient data to support ratemaking.

If McCarran fosters competition, the effect should be amplified in property-casualty insurers, but negligible in life insurance carriers given public availability of mortality data. However, if McCarran encourages collusion by decreasing available regulatory resources, positive returns should be uniform across life and property-casualty charters.

In testing for differences across segments of the insurance industry, we also inform a second, more general hypothesis. If life insurer responses to regulatory changes are distinct from those of property-casualty insurers, it may not be appropriate to subject both segments of the industry to homogenous regulation.

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22 See for example Lott (2007), Taylor (2007), and Leahy (2009).
4. Data, Methodology and Results

Data

We use an event-study methodology to determine the effects of regulatory developments on insurance company stock returns. This requires six data elements: event dates, shareholder returns, charter type (property, casualty or life), and total assets for each insurance company, returns on the market portfolio, and the risk free rate of return.

We begin by measuring returns before and after six event dates. These event dates relate to various court actions in the Southeastern Underwriters Association case and congressional action leading to enactment of McCarran. Each event represents the public release of information related to the future of insurance regulation. The first event is the original indictment filed against the SEUA in November of 1942. The second event is the dismissal of the SEAU indictment by a lower-court judge in August of 1943. The third event is the United States Supreme Court ruling in U.S. v. SEAU that insurance is interstate commerce and should be regulated by the federal government in June 1944. The fourth event is the U.S. Supreme Court decision to deny rehearing of the SEAU case in October of 1944. The fifth event is passage of the McCarran-Ferguson Act in January of 1945. Finally, the sixth event is dismissal of the original indictment against SEAU in June of 1945. The six event dates appear in Table 1.
Table 1: Summary of Major Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Jury issues original indictment against the SEUA*</td>
<td>November, 1942</td>
</tr>
<tr>
<td>Judge dismisses indictment against the SEUA</td>
<td>August, 1943</td>
</tr>
<tr>
<td>Supreme Court rules that insurance is interstate commerce</td>
<td>June, 1944</td>
</tr>
<tr>
<td>Supreme Court denies Rehearing of SEUA</td>
<td>October, 1944</td>
</tr>
<tr>
<td>Congress passes the McCarran-Ferguson Act</td>
<td>January, 1945</td>
</tr>
<tr>
<td>Final dismissal of indictment against the SEUA</td>
<td>June, 1945</td>
</tr>
</tbody>
</table>

*SEUA= Southeastern Underwriters Association

We collect monthly stock data on 80 insurers for the period 1942 to 1945. We use *Best's Insurance News* to identify the insurer population during that time. We identify informational events and dividend payments in *The Wall Street Journal* and the *New York Times*. Monthly stock prices are from *Best's Insurance News*, the *Wall Street Journal*, and *Moody's Insurance Index*. The insurers in the sample include companies from three sectors of the industry: life insurance, fire insurance, and casualty insurance. The latter two segments are now commonly referred to jointly as property-casualty insurers. We collect monthly market returns based on the Dow Industrial's Average from the *Federal Reserve Bulletin*. The proxy for the risk free rate is the return on three-month Treasury bills. These data also come from the *Federal Reserve Bulletin*.

**Methodology and Results**

We employ a standard event study methodology to measure effects of regulation. Our analysis follows a large body of literature including Binder (1985), Prager (1989), and Simon (1998). We begin by estimating Equation 1 to determine if the chosen events affect insurer returns. Because our analysis concerns differential effects on companies across industry segments rather

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23 See Jarrell and Bradley (1980) and Jarrell (1981) for additional examples of applying this methodology to questions concerning financial services regulation.
than overall effects on the market, observations are weighted equally. We estimate Equation 1 via OLS regression with standard errors clustered at the firm level.

\[
(R_{it} - R_{ft}) = \alpha_i + \beta_i(R_{mt} - R_{ft}) + \sum_{j=1}^{J} \delta_{ij} D_{jt} + e_i, \quad t = 1, \ldots, T
\]  

(1)

where

- \(R_{it}\) = return on shares of insurer \(i\) at time \(t\)
- \(R_{ft}\) = risk-free rate of return at time \(t\)
- \(R_{mt}\) = return on the market portfolio at time \(t\)
- \(\delta_{ij}\) = insurer \(i\) response coefficient to event \(j\)
- \(D_{jt}\) = dummy variable equal to 1 if event \(j\) occurred at time \(t\), 0 otherwise
- \(J\) = number of events of interest
- \(T\) = number of time periods
- \(\alpha_i, \beta_i\) = market parameter coefficients
- \(e_i\) = error term

Conceptually, Equation 1 estimates the capital asset pricing model for insurance companies and includes dummy variables for the six event dates described in the preceding section. If a coefficient estimate, \(\delta_{ij}\), is significantly different from zero, the event coincides with an abnormal return. A positive coefficient is consistent with the measured event increasing the value of firms in the industry, and vice versa.

Results from estimating Equation 1 appear in Table 2. We find abnormal returns coinciding with four of the six events. Results are consistent with a general market preference for the regulatory regime in effect before the SEUA decision, and that the similar regime implemented by McCarran. The coefficient estimates for the indictment of SEUA and the Supreme Court ruling deciding the case are significant and negative; while the coefficient estimates for enactment of McCarran and dismissal of the SEUA indictment are positive and significant. Because McCarran essentially returned the industry to its prior regulatory regime, it is reasonable to assume the same factor is driving the negative and positive coefficients.
Table 2: Pooled Regression: All Insurance Companies (Fire, Casualty, and Life Charters)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Estimate (Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEAU Indictment</td>
<td>$-0.016^{***}$ (0.005)</td>
</tr>
<tr>
<td>Indictment Dismissed</td>
<td>$-0.01^*$ (0.005)</td>
</tr>
<tr>
<td>Supreme Court Ruling</td>
<td>$-0.017^{***}$ (0.004)</td>
</tr>
<tr>
<td>Rehearing denied USSC</td>
<td>0.011^{***} (0.004)</td>
</tr>
<tr>
<td>McCarran-Ferguson Act</td>
<td>0.05^{***} (0.007)</td>
</tr>
<tr>
<td>Final Dismissal</td>
<td>0.009* (0.005)</td>
</tr>
<tr>
<td>Intercept ($\alpha$)</td>
<td>$-0.009^{***}$ (0.001)</td>
</tr>
<tr>
<td>Market Return($\beta$)</td>
<td>0.59^{***} (0.036)</td>
</tr>
</tbody>
</table>

Statistical significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively.

Our next step is to analyze the impetus of the market preference for the regulatory format of McCarran. We want to determine if the evidence is consistent with collusion or competition. Binder (1985) suggests the impact of regulatory events may not be uniform across firms in a particular industry. Following this framework, our hypotheses rest on such differences between industry segments and firm characteristics. If insurance company shareholders favor McCarran because it facilitates collusion, we would expect positive returns around McCarran to be uniform across insurers by charter (Fire and Casualty versus Life). Within the subset of fire and casualty insurers, positive returns would be greater for large firms with more market share than for small firms that do not have adequate rating data.

Alternatively, if McCarran fosters competition by reducing barriers to entry and allowing small firms to share large risks, we would expect returns to be concentrated among fire and
casualty insurers and to be more pronounced for smaller firms. To control for these effects, we separate the sample into fire and casualty insurers and life insurers. We also include the natural logarithm of firm assets (Size), and the interaction of McCarran and Size. Results of this analysis appear in Table 3.

**Table 3: Results by Firm Size and Business Type**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Property-Casualty</th>
<th>Life</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient Estimate</td>
<td>Coefficient Estimate</td>
</tr>
<tr>
<td></td>
<td>(Standard Error)</td>
<td>(Standard Error)</td>
</tr>
<tr>
<td>SEUA Indictment</td>
<td>-0.017***</td>
<td>-0.005</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td>(0.009)</td>
</tr>
<tr>
<td>Supreme Court Ruling</td>
<td>-0.017***</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.025)</td>
</tr>
<tr>
<td>McCarran-Ferguson Act</td>
<td>0.307**</td>
<td>-0.014</td>
</tr>
<tr>
<td></td>
<td>(0.128)</td>
<td>(0.122)</td>
</tr>
<tr>
<td>Size</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Size*McCarran</td>
<td>-0.015**</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Intercept (α)</td>
<td>-0.023</td>
<td>-0.03*</td>
</tr>
<tr>
<td></td>
<td>(0.021)</td>
<td>(0.014)</td>
</tr>
<tr>
<td>Market Return(β)</td>
<td>0.586***</td>
<td>0.5***</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.121)</td>
</tr>
</tbody>
</table>

Statistical significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively.

Results in Table 3 are consistent with the competition hypothesis. First, the coefficient estimates for the three events are not the same across industry segments. In the fire and casualty subsample results are substantively the same as those in Table 2. However, the event coefficients in the life insurer subsample are not statistically significant. Second, in the fire and casualty subsample, the coefficient estimate for the interaction of Size and McCarran is negative and

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24 We omit the other three events because splitting the sample reduces degrees of freedom. Retaining insignificant or unnecessary events would introduce bias favoring the insignificance finding within the subset of life insurers.
significant at the ten-percent level. This indicates positive abnormal returns are concentrated in smaller fire and casualty insurers. These insurers have the most to gain from enhanced competition and the most to lose if McCarran facilitates collusion.

5. Conclusions

The purpose of antitrust law is to protect consumer welfare by ensuring proper competition in markets. In rare instances when application of standard antitrust laws would hinder competition or otherwise harm consumers, industries may be exempted from such statutes. The McCarran-Ferguson Act formally granted the business of insurance a narrow exemption from certain aspects of federal antitrust laws in 1945. Since then, policymakers have periodically debated the merits of the exemption, and some have proposed legislation to repeal McCarran.

Several times in the last three decades, some policymakers have sought to repeal McCarran in response to observed increases in price and decreases in availability of insurance. Empirical evidence on effects of McCarran has been scarce, leaving policymakers to rely on anecdotal evidence or uninformed speculation.

We analyze insurance company shareholder returns from 1942 to 1945 to provide empirical evidence on the effect of the antitrust exemption formalized by enactment of McCarran. We find that some of the information events related to the antitrust exemption had significant effects on insurance company stock returns. In all cases, insurance company shareholders display a preference for the regulatory framework that was in effect before the SEUA decision, and effectively reinstated by McCarran. In this regulatory regime, insurance is regulated at the state level, and insurers are permitted to share loss information via independent statistical agents for the purpose of ratemaking.
We also find evidence that response to enactment of McCarran and surrounding events differs substantially across segments of the insurance industry. While stock price reactions are significant among property and casualty insurers, we find no significant response among life insurers. Furthermore, within the subsample of property and casualty insurers, the effect of McCarran on insurer stock prices displays an inverse relation to firm size.

These results support two important conclusions. First, the limited antitrust exemption provided by McCarran enhances competition in insurance markets. Positive abnormal returns are associated with firms that would not be able to compete effectively in the market without the antitrust exemption (small property-casualty insurers). In contrast, if McCarran facilitates collusion among insurers, we would expect to find positive returns for all insurers, with substantially more value created among those with the greatest market share.

Second, we find support for the more general hypothesis that distinct segments exist in the insurance industry. Unlike property-casualty insurers, life insurer stock prices display no reaction to McCarran. Therefore, the optimal regulatory strategy may not be uniform across all insurers.

Although we analyze an event occurring more than six decades ago, our results have meaningful implications for current-day policymakers. In sharp contrast to accusations made by some politicians, regulators, and insurance industry critics for many years, our empirical findings are consistent with the antitrust exemption provided by McCarran increasing the level of competition in insurance markets. As policymakers consider the next step in the modernization of insurance regulation, consumer interests will be served by relying on empirical evidence, rather than implementing speculative legislation to temporarily satisfy the public.
References


