Journal Of Financial And Strategic Decisions
Volume 8 Number 2 Summer 1995

EXPANSION INTO INSURANCE PRODUCT-LINES AND BANK SHAREHOLDER RETURNS

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Abstract

The prospects of Congress permitting bank expansion into insurance continues to concern bankers, insurers and investors. Based upon event study methods, abnormal returns to investors of banks engaging in currently permitted insurance activities are found to be significant over the 1974-1990 period. Further, disaggregated results suggest that there were significantly higher returns to more recent engagements, as compared to engagements prior to 1982.

INTRODUCTION AND LITERATURE REVIEW

The United States banking industry has been one of the most heavily regulated industries in the world. Motives for regulation of banks are attributed to promotion of industry safety as well as to promotion of a competitive structure. Much of the current regulatory structure concerning pricing, geographic and product restrictions can be traced to the banking laws passed in the 1930's like Glass-Steagall. However, banks have evolved past the single office and branching systems prevalent in the 1930's to the point where now the bank holding company has become the dominant form of bank organization.

As the influence of bank holding companies has grown, regulations have been enacted to control their activities. The first significant action passed by Congress was the Bank Holding Company Act of 1956. This Act restricted the non-banking activities of multiple bank holding companies. The Federal Reserve Board was granted authority to regulate bank holding company activity and the Act required several bank holding companies to divest non-bank subsidiaries [Lash, 1987].

One-bank holding companies were not regulated by the 1956 Act. This loophole led to rapid expansion of this organizational form of banking. By 1968, one-bank holding companies were being formed by most of the major banks in the U.S. and many offered non-banking services. In response, Congress amended the Bank Holding Company Act in 1970 to include one-bank holding companies and to further specify permissible non-bank activities in Regulation Y of the Federal Reserve Board. All permissible activities were required to be closely related to banking activities. Activities not permitted included: insurance premium funding, underwriting credit insurance not related to credit extension, sale of level-term credit life, underwriting mortgage guaranty insurance, underwriting property and casualty insurance, and underwriting home loan life mortgage insurance.

The Garn-St. Germain Depository Institutions Act of 1982 relaxed many price and geographic restrictions on Bank Holding Companies. However, in contrast to its overall impact to further reduce banking restrictions, it increased restrictions on bank holding companies' insurance activities. The Garn-St. Germain Act prevented bank holding companies from becoming principals, agents, or brokers when providing insurance services, and permitted only seven exceptions: credit life associated with extension of credit, property insurance associated with loans, insurance sales in small towns, insurance sales by small banks, supervising certain retail insurance agents and two grandfathering clauses [Mason and Massey, 1991].

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The authors are grateful for suggestions from Andrew Thompson and session participants at the Midwest Finance Association Meetings where an earlier version of this paper was presented. We also wish to thank Michael Garner for his excellent research assistance.

The regulatory climate since the early 1980s has become more receptive to expansion of bank product-lines into insurance markets, and the Federal Reserve Board has issued statements pressing for product-line deregulation of the banking industry. The Federal Reserve Board has also interpreted the exemptions to the regulatory acts very liberally, particularly grandfathering clauses. To stop the Federal Reserve Board from weakening previous laws concerning insurance activities, the Saving and Loan Industry Recapitalization Act of 1987 placed a temporary moratorium on new banking powers. However, the moratorium expired early in 1988 and was not extended.

Federally chartered bank holding company interest in insurance has been stimulated in recent years by both foreign and domestic competition. Many European banks have greater flexibility in offering insurance products than U.S. banks and have expanded these services in recent years [The Economist, 1991]. National and state chartered banks are subject to regulations of non-bank activity which are generally similar to those of federally chartered bank holding companies [Felgran, 1985]. However, in 1983 national banks were permitted to rent lobby space to independent insurance agents with rent being related to the volume of business or earnings of the insurance firm. Concurrently, state chartered banks have been given more flexibility when undertaking non-banking activities. For example, South Dakota allows an expanded menu of insurance products, and allows non-South Dakota chartered bank to acquire State chartered banks. The passage of Proposition 103 in California opened the insurance markets in one of the largest states. And in 1990, Delaware passed a much debated law which allowed banks chartered in Delaware to underwrite and sell insurance.

The Delaware law could have an impact on cash-flows and asset liability management for banks taking advantage of it. Cash-flows may increase if expansion into insurance product lines offsets the loss of more traditional banking profit sources. Diversification into insurance product lines may also reduce interest rate risk. A study by Ambrose, Brown and Winters [1992] finds support for increased cash-flow, but these authors do not find interest rate reduction benefits through expansion into insurance product lines.

Several recent events have also broadened national and state banks' ability to enter nationwide insurance markets. In 1987, the FDIC modified its regulations and permitted insured banks to underwrite life insurance with certain safeguards in place. And in 1988, a Federal Court upheld a ruling by the Comptroller of the Currency (OCC) allowing national banks to sell insurance from offices in towns with populations of less than 5,000. However, a recent ruling by a U.S. Appeals Court has restricted the ability of the OCC to permit banks to sell insurance in small towns [*Banking Week*, February 18, 1992]. Legislation considered, but not passed by the House Banking Committee would have limited certain national banks insurance activities, but protected Delaware Laws [*Wall Street Journal*, July 5, 1991].

While insurance interests have opposed banks entry into their markets, insurance regulations do not generally prohibit bank control of insurance companies. In states such as Illinois, insurance agents have had some success in fighting legislation aimed at permitting banks chartered outside of Illinois to sell insurance [*Verisario*, 1990]. In general, however, except for restrictions such as the Appleton Rule for New York-based insurers, state-by-state variations in insurance regulations do not make an effective deterrent to bank entry.

Clearly, banks' expansions into insurance product-lines has been changing over the past decade. Prior to 1982, the regulatory climate was not receptive to such behavior. It was thought that by allowing non-bank activities the competitive nature of the insurance industry, as well as banking safety and stability, could be compromised. Events after 1983 indicate a changing regulatory climate toward bank insurance activity, and increasingly competitive marketplace. With this dichotomy in mind, this paper examines bank holding companies entry into insurance to examine the impact of product-line expansion into insurance services on bank shareholders returns.

Several previous studies have considered the effects of bank holding company product-line expansion. Eisenbeis, Harris and Lakonishok [1984] examined changes in returns to shareholders resulting from 1970 legislation permitting engaging in non-bank activities, and found that gains were small and insignificant. Eisenbeis and Wall [1984] and Brewer [1989] both concluded that one needs to examine specific types of acquisitions to answer questions concerning profitability and risk. Swary [1981] and Saunders and Smirlock [1987] examined bank acquisitions of mortgage firms and discount brokerages, respectively, both finding small, insignificant effects on bank shareholders' wealth. Brewer, Fortier and Pavel [1988] found limited potential for risk reduction through diversification into a set of non-bank activities, and Kwast [1989] and Rosen et al. [1989] found limited potential for diversification advantages to bank entry into security and real estate activities, respectively. Recently, however, Brewer [1990] found decreases in bank return volatility associated with non-bank activities, including insurance.

Simulation studies have also been used to examine the existence of diversification benefits. Boyd and Graham [1988] simulated hypothetical mergers using COMPUSTAT data and concluded that combining life insurance

companies and banks reduced risk in the combined firm as well as returns. Christiansen and Pace [1992] also examined the potential impact of insurance, securities, and real estate powers on bank holding companies from 1971-1989. They conclude that insurance powers offer the greatest potential to increase earnings at the same or lower risk, or decrease risk at the same or higher earnings of the bank before the merger.

Based upon the existing body of literature on bank product-line expansion, the null hypothesis underlying this investigation is that expansion into insurance product-lines will not be associated with significant changes in returns to investors in bank holding companies. However, it is hypothesized that there may be differences in returns before and after 1982, due to changes in the regulatory climate and competition in the marketplace which may make insurance product lines more attractive to bank holding companies. Following a brief section on the event study methods employed, the data for this study are analyzed and then discussed.

EVENT STUDY METHODS

This study uses event study methods based upon residual analysis of the two index market model. This model has been widely used to investigate market reactions to firms' activities and other changes which might influence investors [Henderson, 1990]. Event studies involve first estimating the market model to determine expected rates of return over a time interval surrounding the time period of the event. Next, abnormal returns associated with an event are found by subtracting expected rates of return from actual rates of return. The security return generating process is assumed to be completely described by the following equation.

Equation 1

$$R_{it} = \alpha_i + \beta_i R_{Mt} + \gamma_i R_{It} + e_{it}$$

where:

R_{it} = daily rate of return of stock i in time t
R_{Mt} = daily rate of return on the market index in time t
R_{It} = daily rate of return on interest rates in time t
β_i = measure of systematic risk
γ_i = measure of interest rate sensitivity
e_{it} = disturbance term over the estimation period
α_i = $R_{it} - b_i R_{Mt} - c_i R_{It}$

The coefficients α_i β_i, and γ_i are estimated by ordinary least squares to determine the predicted values of bank stock returns. While there are many more sophisticated methods which could be adopted for this type of analysis, Brown and Warner [1985] and Thompson [1988] have found that the ordinary least squares estimated market model is generally quite appropriate.

The residual, or abnormal return, is defined as the difference between the actual return and the return predicted by the market model for each time t during the event period. Abnormal returns are expected to be zero under the null hypothesis of no excess shareholder returns to product-line expansion. Rearranging, abnormal returns for each security take the form:

Equation 2

$$\hat{\delta}_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{Mt} - \gamma_i R_{It}$$

where:

δ_{it} = abnormal returns over the event period.

An equally weighted average of abnormal returns is used to estimate the average effect of the event across the N securities considered. This average is termed the average residual (AR) and is represented as:

Equation 3

$$A\hat{R}_t = \left(\frac{1}{n}\right)\sum_{i=1}^{N} \delta_{it}$$

The total effect of the event over time is termed the cumulative average residual (CAR) and is the simple sum of AR_t over various time intervals.

Equation 4

$$C\hat{A}R_{SE} = \sum_{t=t_S}^{t_E} A\hat{R}_t$$

where t_S and t_E are the starting and ending points, respectively, of the time period of interest.

The appropriate test statistic for the significance of the difference of CAR_{SE} from zero is:

Equation 5

$$TC\hat{A}R_{SE} = \sum_{t=t_S}^{t_E}\left[\left(\frac{A\hat{R}_t}{\hat{V}}\right)\sqrt{(t_E - t_s + 1)}\right]$$

where V is the adjusted, estimated standard deviation of CAR and $(t_E - t_s + 1)$ is the length of the event period. More specifically, V is based on σ, the estimated standard deviation of AR from the OLS regression, which is adjusted by summing over the event period, assuming intertemporal correlation of the residuals. The form of the variance of CAR is given by Mikkelson and Partch [1988] as:

Equation 6

$$variance(C\hat{A}R) = \sigma^2\left[T + \frac{T^2}{ED} + \frac{\left(\sum_{t=t_s}^{t_E} R_{Mt} - TR_M\right)^2}{\left(\sum_{i=1}^{ED} R_{Mi} - R_M\right)^2}\right]$$

where ED is the number of observations used in the OLS estimation. Karafiath and Spencer [1991] demonstrate that ignoring this correction leads to biased estimated variances. Salinger [1992] shows that the magnitude of the bias can be as large as 40% for event periods and estimation periods of equal length.

Since daily data are used in this study, reported residuals are CARs, aggregated over a particular week or the entire study period. The one exception is the reported residual for the day of the event which is only a single AR. The test statistic for AR is simply AR/σ. Since AR_t is independently and identically distributed normal over t, TCAR is distributed Student's t.

From the above equations it is clear that the estimation of expected returns and calculation of abnormal returns requires many assumptions concerning the structure of the data employed. Unfortunately, few standards have emerged from the literature. Studies have varied by both the length of the event period and the periodicity of the data employed. For example, in a paper which used event study methods to evaluate the effects of the 1970 Amendments, Billingsley and Lamy [1984] used $t_S = 40$ (-40) months prior to the event and $t_E = 30$ (+30) months after the event (monthly data). Swary [1981] examined mortgage firm acquisition effects from -55 weeks to +55 weeks (weekly data). And Born, Eisenbeis and Harris [1988] considered effects of geographical expansion from -3 weeks to +3 weeks, with particular attention paid to -4 days to +4 days (daily data).

While strict guidelines have obviously not been adopted, time periods including some weeks before and after the announcement of the event are generally used. This study uses t_S = -20 trading days (-4 weeks) and t_E = +20 trading days (+4 weeks). Consistent recommendations have also not appeared for the time period of the estimation of the regression equation which forms the basis for normal returns. Using the previously cited work as a guide, equation (1) is estimated over the period 120 trading days prior to tS, to 120 trading days post t_E. The days of the event period are excluded from the regression.

The use of the two-index model is supported by Choi and Jen [1991], Kane and Unal [1990], Kwan [1991] and others who, at times, have found interest to be significant secondary factors explaining bank stock returns. Short-term interest rates (90-day U.S. Treasury Bill) are used in this study.

DATA

The sample of banks for this investigation comes from the Federal Reserve Bulletins' section on Legal Developments, "Orders Approved Under the Bank Holding Company Act," from 1974 to 1990.[1] This section lists all approvals by the Board of Governors on bank product-line expansion into non-bank activities. Included in the Orders Approved are the names of the organizations, the type of activity permitted, and a discussion of reasons for the approval. Stock returns data for this study come from the Center for Research in Security Prices, University of Chicago (CRSP) file of daily returns, also for the period 1974-1990. Daily returns include both price changes and dividend information. CRSP data are available for exchange traded banks and firms. This file also contains daily returns for the Standard & Poor's 500, a measure of market returns (R_M). Short-term interest rates (R_I) were taken from the Federal Reserve Bulletin.

Matching the CRSP data with the list of banks having activities approved produced a total of 33 events for 25 bank holding companies. This sample is presented in Table 1. Three items are worth noting at this point. First, for these bank holding companies, there was entry into insurance prior to December 1982, and after November 1984. The absence of any events shortly after the passage of Garn-St. Germain suggests that the effects of any insurance activity may be separated from the impact of this Act. Cornett and Tehranian [1990] found that large banks benefitted from this Act which elicited market reactions to its debate for over a year.

TABLE 1
Bank Holding Companies Engaging In Insurance Activities, 1974-1990

Events 1984-1990			Events 1974-1982		
1.	Norwest Corp	5/90	20.	Barnett Banks of Florida	2/82
2.	Citicorp	12/89	21.	Seafirst Corp	4/82
3.	Norwest Corp	10/89	22.	Continental Illinois	9/80
4.	Merchants National Corp	3/89	23.	First City Bankcorp of Texas	8/80
5.	First Bank System, Inc.	9/88	24.	Equimark Corp	8/80
6.	Trustcorp, Inc.	9/88	25.	First Pennsylvania Corp	7/80
7.	First Bank System, Inc.	5/88	26.	Manufacturers Hanover, Inc.	5/80
8.	First Bank System, Inc.	3/88	27.	Bank of New York, Inc.	2/80
9.	Merchants National Corp	12/87	28.	Southwest Bancshares, Inc.	9/78
10.	Merchants National Corp	9/87	29.	Continental Illinois	7/77
11.	Trustcorp, Inc.	8/87	30.	Citicorp	12/76
12.	Sorvan Financial Corp	6/87	31.	NBD Bancorp, Inc.	3/76
13.	First Union Corp	6/87	32.	Union Commerce Corp	1/75
14.	MNC Financial, Inc.	7/87	33.	Interfirst Corp	9/74
15.	First of America Bancorp	4/87			
16.	Security Pacific Corp	1/87			
17.	Norwest Corp	11/86			
18.	First Wisconsin Corp	1/85			
19.	Citicorp	12/84			

Second, these are all large money-center and super-regional banks which may differ in their reactions to these events both from each other and from smaller banks, just as their reactions were different in response to Garn-St. Germain. Evidence for differential reactions between money-center and regional banks was not found in this sample, but effects of smaller banks could not be investigated using these data. Results should be interpreted cautiously for smaller banks.

Third, it has been suggested that multiple events for a single bank-holding company may reflect a program which would be captured by the first event [Schipper and Thompson, 1987]. No real evidence for such a view was found in this study, although only two pairs of such events are included, as will be discussed below.

RESULTS

The procedures outlined in the above discussion leading to the calculation of cumulative abnormal residuals and their test statistics were followed for the entire sample. The regression results are presented in Tables 2 and 3. Bank returns are highly correlated with market returns and are significant in all but three cases. In these three cases, and in the case of an unexpected negative relation, the explanatory power of the equation is quite low ($R^2 <$ .10), suggesting that the model is poorly defined for these banks over these study periods. While there may be more advanced specifications for the regression equation for each event, consistency and comparability of equations were overriding considerations.

TABLE 2
Estimated Coefficients, Two-Index Market Model Regression

Events 1984-1990						
Bank	**α**	**Market β**		**Interest Rate γ**		**R^2**
1	0.058	1.291	(10.0)	-2.827	(1.4)	0.32
2	-0.044	1.213	(9.6)	2.016	(0.7)	0.30
3	-0.001	0.961	(7.0)	0.021	(0.0)	0.19
4	-0.053	0.504	(3.0)	2.310	(1.9)	0.06
5	-0.016	0.099	(1.0)	0.776	(1.3)	0.01
6	0.015	0.000	(0.7)	-0.767	(1.7)	0.01
7	0.002	0.353	(4.8)	-0.010	(0.2)	0.10
8	0.007	0.601	(13.4)	-0.436	(0.6)	0.46
9	0.057	0.312	(4.4)	-3.512	(2.2)	0.13
10	0.080	0.325	(4.6)	-5.134	(2.6)	0.16
11	0.035	0.244	(5.1)	-2.301	(2.1)	0.14
12	0.076	-0.114	(2.3)	-4.755	(4.3)	0.09
13	0.014	0.405	(8.9)	-0.891	(0.9)	0.28
14	-0.011	0.686	(11.7)	0.681	(0.5)	0.39
15	0.047	0.000	(0.1)	-3.031	(2.5)	0.09
16	-0.011	0.505	(7.6)	0.715	(0.7)	0.21
17	-0.020	1.058	(10.2)	1.240	(1.0)	0.34
18	0.008	0.827	(3.9)	-0.244	(0.8)	0.07
19	0.000	2.122	(11.6)	0.023	(0.1)	0.39
Portfolio Return	0.013	0.600	(6.0)	-0.854	(0.7)	0.20

t-statistics in parentheses
Portfolio Return refers to the portfolio of events for each time period.

TABLE 3
Estimated Coefficients, Two-Index Market Model Regression

Events 1974-1982						
Bank	**α**	**Market β**		**Interest Rate γ**		**R^2**
20	0.008	0.689	(4.9)	-0.278	(0.9)	0.11
21	0.007	0.974	(5.0)	0.312	(1.2)	0.12
22	-0.009	0.571	(5.0)	0.303	(2.4)	0.11
23	-0.004	0.544	(6.1)	0.017	(1.5)	0.15
24	-0.004	0.544	(6.1)	0.173	(1.5)	0.15
25	-0.011	1.466	(5.4)	0.231	(0.6)	0.12
26	-0.011	0.540	(5.5)	0.316	(2.2)	0.13
27	-0.001	0.791	(6.7)	0.051	(0.3)	0.17
28	0.005	0.267	(3.2)	-0.858	(1.2)	0.06
29	-0.002	0.954	(8.0)	0.033	(0.1)	0.23
30	-0.001	1.086	(6.7)	0.023	(0.1)	0.17
31	-0.005	0.459	(4.3)	0.376	(0.7)	0.13
32	0.009	0.415	(2.5)	-0.486	(1.0)	0.04
33	0.002	0.859	(7.4)	-0.133	(0.3)	0.23
Portfolio	-0.001	0.726	(5.5)	0.013	(0.3)	0.14

t-statistics in parentheses
Portfolio refers to the portfolio of events for each time period.

Over the two time periods, before 1982 and after 1984, the relation between bank stock and market returns (β) appears to have decreased slightly. Henderson [1990] has suggested that the same phenomena is possible before and after events within the study period. While the downward trend in β is exhibited in both time periods (the average of betas presented in Tables 2 and 3 decreased from 0.653 to 0.625 within the 1984-1990 period), in neither case is this change significant.

Interest rates are generally negatively related to bank returns in recent years and positively related to bank return prior to 1982, although there are individual cases of negative and positive relations in both time periods. Differing relations between bank returns and interest rates across banks may be attributable to differing maturity profiles of assets and liabilities at each bank or other reasons [Flannery and James, 1984]. However, these relations are expected to be stable within banks over short periods of time.

The effects of including interest rates as the second index in the market model are very small in terms of changing the explanatory power of the estimated equations. The effects of interest rates on the identification of significant events, on the other hand, were marked. Using the same methods excluding interest rates suggested that 15 of 33 events were significant, as compared to only 4 significant events under the present construction. Given the null hypothesis that there is no relationship between the events and abnormal returns, conservatism requires that interest rates be included in this model.

Equally weighted portfolio results are reported in Table 4 and the two summary rows of Tables 5 and 6. The methodology described in Spenser and Karafiath [1991] is used to calculate the t statistics.

Table 4 results indicate that the event period contains significant abnormal returns, exceeding 6 percent. Upon closer examination these abnormal returns seem to be driven by more recent acquisitions. The portfolio results indicate that there were no significant abnormal returns for the week prior to the events or on the event date for both sub-periods. Further, the pre-1982 events were not significant for both the week following the event and the event period. However, for the post-1984 events the week following the event and the event period itself indicate that there were significant returns associated with holding company expansion into insurance product-lines.

TABLE 4
Cumulative Average Residuals During Various Event Periods

	Total Sample of Events 1974-1990			
	Prior Week	**Event Date**	**Following Week**	**Event Period**
Portfolio Return	0.0117	-0.0018	0.0037	0.0659
t-statistic	1.7790**	1.6794**	1.2136	4.1145*
Observations	33	33	33	33

*Significant at better than .001 level
**Significant at better than .10 level

TABLE 5
Cumulative Average Residuals During The Event Period

Events 1984-1990								
Bank	**Prior Week**		**Event Date**		**Following Week**		**Event Period**	
1	0.0404	(0.86)	0.0319	(1.51)	-0.0035	(-0.08)	0.1737	(1.30)
2	-0.0158	(-0.38)	0.0050	(0.27)	0.0554	(1.33)	-0.0515	(-0.43)
3	0.0101	(0.24)	-0.0246	(-1.27)	0.0089	(0.21)	0.0000	(0.00)
4	0.0892	(1.67)	0.0006	(0.03)	0.1330	(2.49)*	0.7114	(4.72)*
5	0.0056	(0.21)	-0.0038	(-0.31)	0.0063	(0.23)	-0.0791	(-1.02)
6	-0.0132	(-0.34)	0.0005	(0.03)	0.0767	(1.93)	-0.0023	(-0.02)
7	-0.0032	(-0.10)	0.0117	(0.78)	0.0201	(0.60)	0.0638	(0.68)
8	-0.0555	(-1.62)	-0.0005	(-0.03)	0.0222	(0.64)	0.0287	(0.30)
9	-0.0319	(-0.59)	-0.0177	(-0.73)	-0.0544	(-1.01)	-0.0719	(-0.47)
10	-0.0617	(-1.11)	0.0241	(0.98)	0.0439	(0.80)	0.3500	(2.23)*
11	0.0132	(0.37)	0.0092	(0.56)	0.0410	(1.12)	0.2342	(2.28)*
12	-0.0202	(-0.55)	-0.0066	(-0.40)	-0.0061	(-0.17)	0.0020	(0.02)
13	0.0055	(0.17)	-0.0012	(-0.08)	-0.0274	(-0.82)	0.0496	(0.52)
14	-0.0246	(-0.58)	-0.0344	(-1.81)	0.0141	(0.33)	-0.0377	(-0.32)
15	0.0413	(0.88)	-0.0087	(-0.41)	0.0673	(1.44)	-0.1627	(-1.23)
16	0.1143	(4.63)*	0.0543	(4.91)*	0.0243	(0.97)	0.5099	(7.30)*
17	0.0440	(1.14)	-0.0204	(-1.19)	0.0204	(0.53)	0.0930	(0.86)
18	-0.0153	(-0.38)	0.0143	(0.80)	-0.0482	(-1.20)	-0.0078	-(0.07)
19	0.0511	(1.45)	0.0114	(0.72)	0.0341	(0.97)	0.1088	(1.10)
Portfolio Return	0.0091	1.38	0.0024	1.02	0.0225	2.41*	0.1006	4.14*

t-statistics in parentheses
Portfolio Return refers to the portfolio of events for each time period.
* Significant at better than .025 level

TABLE 6
Cumulative Average Residuals During The Event Period

Events 1974-1982								
Bank	**Prior Week**		**Event Date**		**Following Week**		**Event Period**	
20	0.1275	(3.03)*	0.0215	(1.14)	-0.0534	(-1.27)	-0.2013	(1.69)
21	0.0185	(0.34)	-0.0018	(-0.07)	0.0010	(0.02)	0.0549	(0.36)
22	-0.0141	(-0.37)	-0.0232	(-1.35)	0.0279	(0.72)	0.0388	(0.36)
23	-0.0136	(-0.42)	-0.0157	(-1.11)	-0.0435	(-1.37)	-0.0815	(-0.91)
24	-0.0136	(-0.43)	-0.0157	(-1.11)	-0.0436	(-1.37)	-0.0819	(-0.92)
25	0.0402	(0.42)	-0.0103	(-0.25)	0.0671	(0.70)	0.1046	(0.38)
26	0.0060	(0.18)	-0.0059	(-0.38)	-0.0055	(-0.16)	0.2214	(2.26)*
27	-0.0153	(-0.37)	0.0064	(0.35)	-0.0595	(-1.42)	0.0055	(0.05)
28	0.0285	(1.08)	0.0069	(0.58)	-0.0015	(-0.06)	0.0886	(1.18)
29	-0.0123	(-0.58)	0.0039	(0.41)	0.0236	(1.11)	0.0926	(1.55)
30	0.0176	(0.59)	-0.0175	(-1.31)	-0.0393	(-1.32)	-0.1152	(-1.36)
31	0.0077	(0.31)	-0.0036	(-0.33)	0.0104	(0.40)	0.0599	(0.84)
32	0.0528	(0.81)	-0.0386	(-1.32)	0.0337	(0.51)	0.0818	(0.44)
33	-0.0154	(-0.31)	-0.0119	(-0.53)	-0.0607	(-1.22)	-0.0065	(-0.05)
Portfolio Return	0.0153	1.15	-0.0075	-1.43	-0.909	-0.25	0.0187	1.59

t-statistics in parentheses
Portfolio Return refers to the portfolio of events for each time period.
*Significant at better than .025 level

Cumulative daily ARs for the summary of pre-1982 and post-1984 events are small for both time periods. However, the pattern of returns suggest larger returns in more recent events. Figure 1 illustrates the relationship between the time periods. More formally, a test of the difference between CARs in these two time periods is significant ($t = 2.12$; $p = 0.017$).[2] This result is in contrast to the general pattern of returns to mergers and acquisitions. Jarrell, Brickley and Netter [1988] found CARs to be positive and significant in the 1960s, smaller, but still significant in the 1970s, and negative and insignificant in the 1980s. Therefore, any market-wide bias in this time series would suggest lower returns in more recent events rather than the higher returns found in this study.

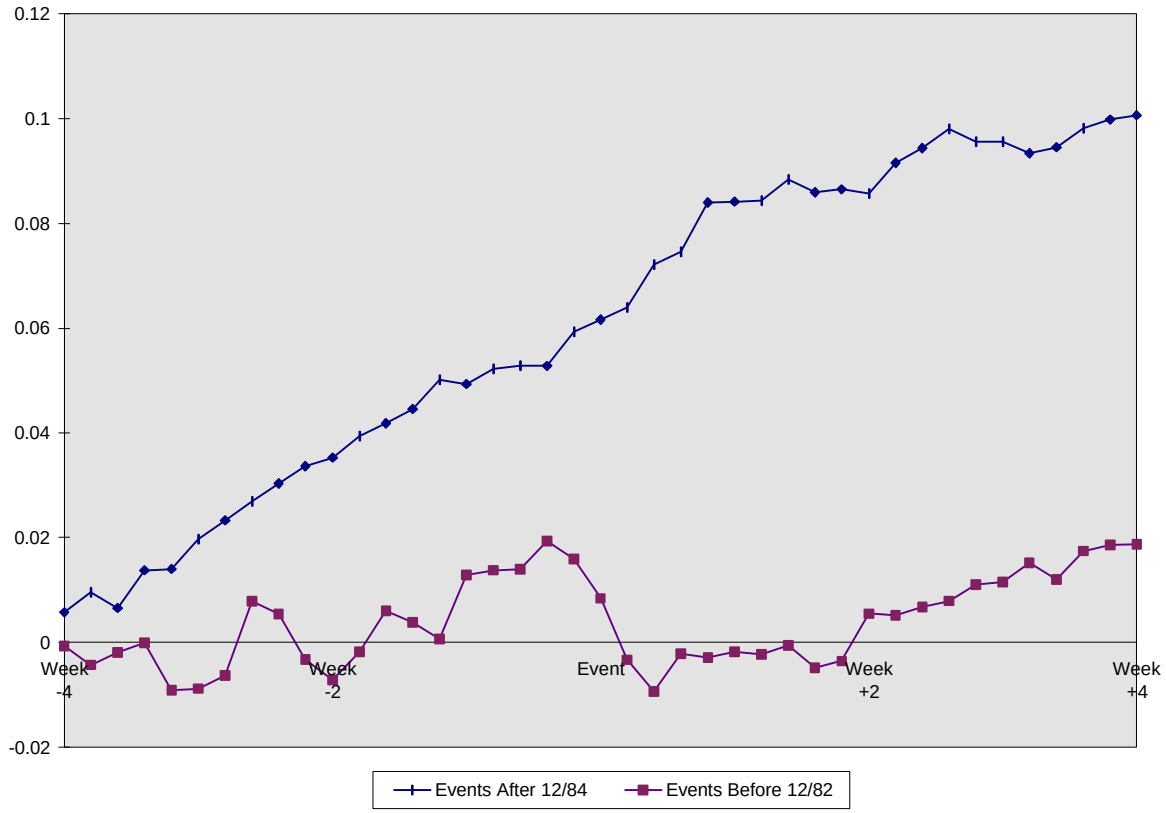
Evidence for the full capitalization of insurance buying programs on the first event are possible for Merchant's National and Trustcorp where the first events (10 and 11) were significant, but the events immediately following these first events by less than a year (9 and 6) were insignificant. However, for the other sets of possible program events no patterns were observed.

CONCLUSIONS

The most notable observation to be taken from this investigation is that in the aggregate bank entry into the limited forms of permitted insurance activities was viewed as significant events by investors in some, but not all, bank holding companies. Abnormal returns in the event period were a significant 6.59%. Thus the null hypothesis of this study can be rejected. However, results also suggest that these abnormal returns were relatively recent occurrences.

Differences between the independent patterns of returns over time suggest that entering into insurance prior to late 1982 was viewed as relatively unprofitable from the standpoint of bank investors, but of greater profitability after 1984. There may be several reasons for this observation, a couple of which deserve note. First, the interceding passage of Garn-

FIGURE 1
Average CAR Before 12/82, After 12/84.



St. Germain restricted some insurance activities, but was interpreted favorably for banks by the Federal Reserve Board. Further examination of Federal Reserve Board statements approving bank acquisitions did not reveal any differences for events before or after Garn-St. Germain, but it is possible than only more favorable types of activities were approved after the Act, leading to the observed results. It may also be that the large banks included in this sample benefitted from taking advantage of changes in the regulatory climate. Cornett and Tehranian [1990] found positive returns to shareholders of large banks associated with the passage of this Act, so taking advantage of its features might logically also be viewed positively.

Second, competition from foreign and domestic (national and state chartered) banks which have broader product-line offerings has been increasing. Bank holding companies' insurance offerings may be viewed as a positive and necessary response to this competition.

Third, in an environment where bank holding companies are losing market share to other forms of financial intermediaries, bank management may need to seek non-traditional forms of intermediation to survive. Theoretically it appears that there is the potential that insurance product lines may enhance cash-flow without a coincident increase in risk. While the excess returns recorded by firms in this study were small, the results add to the growing empirical body of knowledge that insurance product lines are a logical area of diversification for bank holding companies.

Finally, this study only considered mergers of bank holding companies with insurance firms. It is quite possible that the combination of insurance, securities underwriting and real estate product lines may have even larger benefits. As data becomes available, future work could focus on these possible synergies.

ENDNOTES

1. MLR Publishing was employed to perform a search of financial publications (*Wall Street Journal, Dow Jones News Wire Service, New York Times, Financial Times, Standard & Poor's Daily News, SEC Documents and Press Releases*) in an attempt to verify event dates. However their search came up empty. While this lack of verification may imply that investors obtain information on bank activity in different media sources, it is more likely that bank product line expansions are not particularly noteworthy events and that the Federal Reserve accouncements of approval represent the appropriate event date.

2. The Z^* statistic described by Impson and Karafiath [1992] is used to determine the statistical difference in CARs across the two time periods. This statistic is expressed as:

$$\hat{Z}^* = \frac{(\hat{MSCAR}_1 - \hat{MSCAR}_2)}{\sqrt{\frac{1}{N_1} + \frac{1}{N_2}}}$$

where MSCAR is the mean standardized CAR.

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