"CAPITAL MARKET REACTION TO THE ANNOUNCEMENT OF INTERSTATE BANKING LEGISLATION"

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I. Introduction

Historically, the McFadden Act of 1927 and the Banking Act of 1933 prohibited interstate branch banking by making all branching activities subject to state authority. The Douglas Amendment to the Bank Holding Company Act of 1956 (BHCA) prohibited bank holding companies from acquiring banks in more than one state, unless the acquisition was specifically permitted by the statutes of the state in which the bank to be acquired was located. These restrictions have been the primary determinants of the structure of commercial banking industry in the United States. Banking organizations, however, have employed several devices in recent years to circumvent the restrictions which prohibit the provision of banking services across state borders.[1]

The first state statute permitting entry to out-of-state BHCs was enacted in 1975 by Maine. In 1982 Massachusetts adopted a New England regional reciprocal law. By the end of 1988, 42 states had enacted provisions allowing for entry by out-of-state BHCs.[2] These provisions have led to far-reaching changes in the structure of the commercial banking industry, including: (i) a redefinition of the market for banking services, (ii) increased investment opportunities, (iii) opportunities to exploit economies of scale and economies of scope.

This paper examines the price reaction of bank stocks to a sequence of annoucements related to interstate banking legislation in three states that opened their borders to out-of-state banks. These are Arizona, Texas and Virginia. Arizona enacted legislation in 1985 that allowed unrestricted, nationwide interstate banking by BHCs beginning October 1, 1986. Texas enacted similar legislation in 1986 that became effective on January 1, 1987. And Virginia enacted regional reciprocal interstate banking legislation in 1985 that became effective on January 1, 1986.[3] It should be noted that Texas and Arizona adopted their laws at a time of economic difficulty.

Public announcement of the initiation and passage of state statutes allowing interstate banking leads to a rise in the price of stock of those banks most likely to be acquired by an out-of-state BHC. This rise in value of target bank stocks occurs particularly in a state that unexpectedly announces the introduction of legislation permitting out-of-state BHCs to unconditionally acquire any bank in that state. The removal of all legal barriers triggers a rise in the stock price of those target banks which enjoy a relatively large increase in potential BHC bidders. The expected increase in potential BHC bidders is larger for large target banks, since the number of in-state banks large enough to make a bid is limited, and any merger application of large banks is likely to be challenged by regulators. Accordingly, the expected premiums for medium-sized banks may be expected to be smaller than for large banks. Thus by the time a specific out-of-state bank makes a bid on a given target bank, part of the potential merger gains to the target may have already been reflected in the target bank's stock price.[4]

The sources of the potential positive market reaction to legislation allowing interstate bank mergers include:

1. The incentive to banks to diversify geographically in order to reduce the variability of earnings and the probability of bankruptcy.[5]
2. A synergy effect caused by a larger bank enjoying economies of scale, i.e., higher lending limits or improved efficiency of the payment system.[6]
3. The bidder competition hypothesis, which states that the target bank premium is likely to be higher.[7]

The findings of this study suggest that the stock price of banks in Arizona, Texas and Virginia rose when interstate banking legislation was first proposed. The reaction was stronger in Arizona and Texas than in Virginia, since the first two enacted unrestricted, nationwide interstate legislation (i.e., banks in any other state can acquire in-state banks even if that state does not permit interstate banking), whereas Virginia enacted restrictive interstate banking legislation based on regional reciprocity (i.e., Virginia banks can only be acquired by banks locted in a limited number of states that have themselves opened their borders to Virginia banks).

2. Data and Methodology

The sample of banks used in this study consisted of 386 banks that had publicly traded common stock over the period January 1984 to December 1986. Weekly rates of returns were computed for each bank using either daily returns (when available),[8] or successive end-of-week daily bid prices plus dividends adjusted for stock splits and stock dividends.[9] The weekly returns on the value-weighted index of all common stock traded in the NYSE and ASE taken from the GRSP tapes served as a proxy for the market of risky assets.

To estimate the market reaction of a given group of banks to certain events, a multivariate regression as suggested by Binder (1985) was used. Multiple announcements of regulatory changes, and high cross-sectional correlation in the security return residuals of affected banks, dictated the use of this approach.

$$(1) \qquad R_{pt} = \alpha_p + \beta_p R_{mt} + \sum_{k=1}^{N} U_{pk} D_k + e_{pt}$$

where t - the index of weeks,

k - the index of events,

p - portfolios

R_{pt} - the weekly rate of return on portfolio p over week t,

α_{pt}, β_p - the ordinary least-squares estimates of the intercept and slope of this version of the market model,

R_{mt} - the weekly rate of return on the CRSP value-weighted index over week t,

D_k - the dummy variable that takes the value of one during the event week k and zero otherwise,

U_{pk} - coefficient that captures the effect of specific events on the value of portfolio p.

The multivariate regression approach allows for discrimination on the differential effects of announcements across portfolios of banks and for contemporaneous correlations among individual portfolio returns. This is accomplished by use of the zero-one dummy variable in the market model equations. The coefficients of the equation measure the impact of an event on stock return prices. The estimates of the coefficients (U_{pk}) are similar

to residual returns obtained from the market model. The multivariate regression approach, moreover, permits the evaluation of many different events (announcements) over the time period examined. Finally, the t-statistic on the regression coefficients of the dummy variable is used to test the significance of the estimated abnormal returns.

3. Reaction of Bank Stock Prices to Announcements of Interstate Banking Legislation in Texas

3.1 Chronology of Events

The first press reports regarding the possible introduction of interstate banking legislation in Texas appeared in late July 1986. The legislation was approved by both the Texas Senate and House in late August 1986. The final version of the bill was signed into law by the State Governor on September 23, 1986 and become effective on January 1, 1987. Less than two months separated the initiation of the provision from actual enactment. The key dates related to this sequence of events are reported in Exhibit A.

According to the September 1986 issue of The Banker, "in the first seven months of this year the average Texas bank stock lost 37 percent of its value ... The Texas legislature ... was called into a special one-month session on August 6 to solve the fiscal crisis caused by dwindling oil and gas tax revenues. Pressure to use the opportunity to amend restrictive bank laws began to build up in July ... [and] the Senate moved with almost indecent haste and there were none of the previously mooted intermediate steps, such as demanding interstate reciprocity or excluding banks from

California and New York". Thus the legislation process in Texas was relatively short and fully unanticipated.

The price reaction of bank stocks to the sequence of events that led to the enactment of interstate banking legislation Texas can be examined using a time-series regression analysis. The methodology and empirical results are reported below.

3.2 Regression Analysis Results

Methodology

The sample of banks was first divided into two groups: Texas banks and out-of-state banks. The Texas banks were then assigned to one of three equally-weighted portfolios of banks constructed according to bank size. The following criterion was used. Large-size banks have at least $15 billion in assets; medium-size banks have assets of between $1.5 billion and $15 billion; small-size banks have at most $1.5 billion in assets. The characterization of banks by size is a proxy for differences in operation (i.e., retail vs. wholesale banking domestic vs. multinational).[10] The large-bank portfolio contained 4 banks, the medium-bank portfolio 7 banks and the small-bank portfolio 5 banks. Out-of-state banks were assigned to one of four equally-weighted portfolios, also constructed according to bank size. The money-center bank portfolio contained 15 banks, the large-bank portfolio 4 banks, the medium-bank portfolio 149 banks and the small-bank portfolio 172 banks. This resulted in a total of seven portfolios.

For each of the seven portfolios the following regression was run:

$$R_{pt} = \alpha_p + \beta_p R_{mt} + \sum_{k=1}^{4} u_{pk} D_k + e_{pt}, \tag{2}$$

where R_{pt}, the dependent variable, is the weekly return on portfolio p ($p = 1,2,...,7$) during the year 1986 ($t = 1,2,...,52$). The independent variables are:

D_1 - a dummy variable that takes the value of one during the 3 weeks surrounding press reports that the state commisssioner was pressing for interstate banking legislation (from the week beginning July 25 to the week ending August 14), and zero otherwise.

D_2 - a dummy variable that takes the value of one during the 2 weeks surrounding press reports that the Texas Senate, the Financial Institutions Committee and the Texas House approved a bill allowing interstate banking (from the week August 15 to the week ending August 28), and zero otherwise.

D_3 - a dummy variable that takes the value of one during a 2-week interim period in which no specific events related to interstate legislation occurred (from the week beginning August 29 to the week ending September 11), and zero otherwise.

D_4 - a dummy variable that takes the value of one during the 2 weeks surrounding press reports that the bill allowing interstate banking was signed into law by the state governor (from the week beginning September 12 to the week ending September 25), and zero otherwise.

The coefficients u_{pk} ($k = 1,2,3,4$) capture the effect that a specific event (or non-event) may have on the value of portfolio p. The coefficients u_{p1}, u_{p2}, and u_{p4} are expected a-priori to be positive and the coefficient u_{p3} to be zero (non-event) for Texas banks. In the case of out-of-state banks the coefficients u_{p1},u_{p2}, and u_{p4} may take any value. The coefficient u_{p3} should be equal to zero.

3.3 Empirical Results and Interpretation

The estimated coefficients of the seven regression equations are reported in Table 1. The upper part of the table gives the estimated coefficients for the three size portfolios of Texas banks. The lower part gives the estimated coefficients for the four size portfolios of out-of-state banks. Below each estimated coefficient is its corresponding t-statistic.

Note that the estimated values of the constant coefficients are significantly different from zero for out-of-state banks, except for the small-size portfolio, in which the estimated value of the constant coefficient is significantly positive. The results indicate that the stock price of Texas banks dropped significantly during 1986 (by a weekly average of about 1.39 percent for large banks, 1.32 percent for medium-size banks and 0.72 percent for small banks), after adjusting for general market movements and the effects of announcements related to interstate banking legislation. This finding is not surprising given the weakness of the Texas economy in 1986 and the mounting difficulties encountered by Texas banks during that period. Regarding out-of-state banks, an insignifican constant coefficient is expected. The significant positive constant coefficient for small banks can be explained by an underestimation of the beta coefficient (β_p) due to nonsynchronous trading between the small-size portfolio and the market index (Cohen et al., 1983). The effect of this factor was found to be immaterial.[11] It may also be the manifestation of the small-firm effect in the banking industry, whereby firms with relatively small market capitalization outperform their larger counterparts on a risk-adjusted basis (Banz,1981).

Finally, note that the beta coefficients of the bank portfolios are significantly positive in all but two cases: small Texas banks and large

out-of-state banks. This is in contrast to the expectation of significantly positive beta coefficients in all cases. This insignificance of the beta coefficient of small Texas banks and large out-of-state banks can be explained by the very small number of banks in these two portfolios and by the nonsynchronous bias suffered by the portfolio of small Texas banks.

To sum up, the following four null hypotheses are tested:

Hypothesis 1 (H1). The event parameters, u_{p1}, u_{p2}, and u_{p4} are equal to zero for Texas banks, irrespective of their size.

Hypothesis 2 (H2). The non-event parameter u_{p3} is different from zero for Texas banks, irrespective of their size.

Hypothesis 3 (H3). The event parameters u_{p1}, u_{p2} and u_{p4} are different from zero for out-of-state banks, irrespective of their size.

Hypothesis 4 (H4). The non-event parameter of u_{p3} is different from zero for out-of-state banks, irrespective of their size.

As shown in Table 1, H1 is rejected for large and medium-size banks, but not for small banks. The stock price of large and medium-size banks reacted positively to the sequence of announcements related to interstate banking legislation. The magnitude of the response is significant. The stock price of large banks rose by 5.58 percent, on average, during the 3 weeks surrounding press reports that interstate banking legislation would soon be presented to the legislature. Stock prices further rose by 7.26 percent during the 2 weeks surrounding the signing of the bill into law by the State Governor. Similar results are reported for medium-sized banks. Small banks exhibited a positive response only during the two-week period surrounding the passage of the bill. During that period the price reaction of small banks was weaker than that of large and medium-size banks (4.38 percent versus 7.26 percent and 8.75 percent).

Since there was no stock price reaction by Texas banks during the two-week interim period separating the passage of the interstate banking bill through the legislature and the signing of this bill into law by the State Governor, H2 is rejected. Hypothesis 3 is rejected for out-of-state banks, irrespective of their size. The sequence of events occurring in Texas does not, on average, affect materially the stock price of out-of-state banks. H4 is rejected for money-centers and large banks, but not for medium-size and small out-of-state banks. It is not clear why medium-size and small out-of-state banks should exhibit a significant drop in their stock price during the 2-week inerim period (a non-event period for Texas banks).

The results reported in Table 1 indicate that there may be significant differences in the stock price reaction of banks to announcements of interstate banking legislation. There seems to be a difference in reaction both among Texas banks and among non-Texas banks. There also seem to be differences between Texas and non-Texas banks. These issues are examined below.

3.4 Difference in Stock Price Reactions

This section examines whether differential market reactions to announcements related to interstate banking legislation in Texas exist. In order to answer this question the following null hypotheses were tested.

The event parameters u_{pk} are equal across all Texas banks in the sample ($u_{p1} = u_{p2} = u_{p3}$), and across all non-Texas banks in the sample ($u_{p4} = u_{p5} = u_{p6} = u_{p7}$).

The results of an F-test for each hypothesis and for each type of dummy (k = 1,2,3,4) are reported in Table 1. This table provides the value of the

F-statistic and the corresponding probability that the null hypothesis is accepted.

Table 1 also indicates that the event parameters are not the same for all Texas banks during the 3-week pre-legislation period (D_1) and the two-week legislature period (D_2), though they are the same during the two-week enactment period (D_4). It can therefore be concluded that the stock price reaction of Texas banks to announcements related to the introduction and passage of legislation allowing interstate banking depends on bank size, with smaller banks reacting less strongly than medium-size and larger banks (see the magnitude of the event parameters reported in Table 1). This reaction is not surprising since large and medium-size Texas banks are more likely than small banks to become candidates for acquistion by out-of-state banks. In other words, the bidder competition hypothesis is more significant for large and medium-size banks than for small banks.

In addition, Table 1 reports that the event parameters are the same (insignificantly different from zero) for all non-Texas banks. Furthermore, results (not reported here) indicate that Texas banks reacted significantly differently from out-of-state banks to announcements related to interstate banking legislation (event 1 and 2). Since Texas banks are most likely to become targets, and out-of-state banks most likely to become bidders, this finding is consistent with the earlier common observation that target-bank shareholders reap most of the value created by an acquisition. This finding also shows that the most significant impact of interstate banking is the increase in the number of potential bidders, a change which is most relevant for large banks. Further, since Texas was a state experiencing economic difficulties, the number of potential bidders was further reduced.

4. Reaction of Bank Stock Prices to the Announcement of Interstate Banking Legislation in Arizona

In April 1985, the Arizona legislature voted to admit banks from any other state, as of October 1, 1986, without a reciprocal agreement from the outsider's home state. However, this unconditionality will be in effect only until June 30, 1992. After that date, out-of-state banks may enter the state only with de novo operations. The legislation process in Arizona was much longer than in Texas and the final approval may be regarded merely as a resolution of uncertainty.

The tests performed on portfolios of Arizona banks were the same as those performed on Texas banks. The results are described below.

4.1 Regression Analysis Results

The methodology is identical to that presented in the case of Texas banks. There is, however, only a single dummy variable that takes the value of one during the two weeks (beginning April 6 and ending April 19, 1986) surrounding press reports that Arizona would allow unrestricted, nationwide interstate banking. The regression results are reported in Table 3. The upper part of the table gives the estimated coefficients, and their corresponding t-statistic, for Arizona banks. The lower part gives the same information for out-of-state banks. In the case of Arizona banks there is only one portfolio of a medium-size bank and one small-bank portfolio because no bank in Arizona was large enough to qualify as a large bank according to our size criteria, as defined above.

The estimated constant coeffiecient is significantly positive in three out of the five cases reported in Table 3, a result that can be attributed to: (1) an underestimation of the beta coefficient of these portfolios,

(2) the small-firm effect, or (3) a combination of these two phenomena. Note that the estimated beta coefficients are all significantly positive, with money-center banks having the highest betas and small banks the lowest betas. The estimated event parameter is significantly positive only for medium-size banks located inside and outside Arizona. The stock price of the medium-size Arizona bank rose by 4.67 percent during the two-week period surrounding press reports that Arizona would allow interstate banking. The stock price of medium-size banks outside Arizona rose by 1.22 percent during that period. These price increases can be attributed to information on the change in the state law, beyond any effect due to the general market movement during that two-week period.

As in the case of Texas, it seems that it is the largest banks in the state which respond positively to the announcement of forthcoming removal of barriers against interstate banking. This is because it is the larger banks that are most likely to enjoy the benefits of the increase in potential bidders brought about by interstate banking.

4.2 Differences in Stock Price Reactions

The results reported in Table 2 indicate that medium-size banks, both inside and outside Arizona, reacted favorably to the announcement of interstate banking legislation, with the Arizona bank displaying the highest rise in stock price during the three-week period (12.17 percent). Small banks did not exhibit any significant reaction (see Table 2). The results in Table 2 indicate that there is a significant difference between the reaction of the medium-size and the small-bank portfolios. Therefore the hypothesis that these two categories of banks have the same stock price reaction (at the 0.010 level of significance) is rejected. Further, the hypothesis that the

stock price reaction of out-of-state banks is the same is rejected, especially since there is also a size effect among non-Arizona banks. Finally, the hypothesis tht the medium-size bank in Arizona has the same price reaction as the out-of-state medium-size banks is also rejected (not reported). The Arizona bank displays a stronger reaction to the announcement of interstate banking legislation.

5. Reaction of Bank Stock Prices to the Announcement of Regional Banking Legislation in Virginia

Contrary to the previous two cases, Virginia allows only regional, reciprocal interstate banking. Reports that Virginia would allow interstate banking only on a regional, reciprocal basis appeared in the press during the second half of March 1985. The experience in Viginia was different, since economic conditions in that state were good at the time of interstate banking legislation.

The estimated coefficients of six size-related regression equations are reported in Table 3. There is a single dummy variable that takes the value of one during the two-week period from March 15 to March 29, 1985, and zero otherwise.

There was no significant stock price reaction to the announcement of legislation allowing only restricted interstate banking by either Virginia banks or banks located outside Virginia, irrespective of bank size. It seems that restricted, regional and reciprocal interstate banking legislation does not provide new opportunities for banks (at least not in the case of Virginia), hence the lack of significant market response. It is also possible that this event was fully anticpated by the market before the two-week period in March 1985.

6. Summary and Concluding Remarks

This paper examines the stock price reaction of banks to the announcement of interstate banking legislation. As expected, such announcements were greeted favorably by the capital markets and led to a rise in the stock price of banks, which reflected the new opportunities offered by the removal of barriers to interstate banking.

Three cases were analyzed: Texas, Arizona and Virginia. The first two states enacted legislation that permits unrestricted, nationwide interstate banking. The third enacted legislation that allows only regional, reciprocal interstate banking. Since unrestricted, nationwide interstate banking offers more potential bidders than regional, reciprocal interstate banking, the stock price reaction of banks in the former case was stronger than in the latter case. This result is consistent with the bidder competition hypothesis.

The summarized findings of the study are:

1. Texas banks reacted favorably to the sequence of events that led to the enactment of interstate banking legislation. Out-of-state banks, however, did not react to the announcements. This finding is consistent with the hypothesis that target-bank shareholders reap most of the benefit accruing from mergers.
2. Not all Texas banks reacted to the announcement of interstate banking legislation in the same fashion. On average, small banks reacted less strongly than medium-size and large banks. This finding is consistent with the argument that medium-size and large banks are more likely than small banks to become candidates for acquisition by out-of-state banks (following the bidder competition hypothesis). The larger banks of Texas

had a relatively small number of bidders, due to regulators' policy toward bank mergers and due to the economic conditions in Texas.

3. Medium-size banks located inside and outside Arizona reacted positively to the announcement that Arizona would adopt unrestricted, nationwide interstate banking. The price reaction of Arizona banks was significantly stronger than that of out-of-state banks. Small banks, both inside and outside Arizona, did not exhibit any significant price reaction to the announcements. These findings are consistent with those reported in the case of Texas.
4. No significant stock price reaction was observed for either Virginia banks or banks located outside Virginia when that state adopted legislation allowing regional, reciprocal interstate banking.

The implication of this study is that interstate banking is important in terms of providing greater efficiency in banking services and increasing the number of potential bidders. This effect is stronger for larger banks. Further, the increase in the number of potential bidders is even more significant in those states experiencing poor economic conditions, such as Texas and Arizona.

An examination of regulating at the federal level (The Garn St. Germain Act of 1982) and at the state level in Texas, Arizona, Maine, and Alaska shows that the approach is to allow interstate banking merely as an emergency measure for individual banks, or when economic conditions are poor in a given individual state. Given this situation, the question of the abolition of interstate banking should be a federal issue and should not be left to the state-authority level.

EXHIBIT A

SEQUENCE OF EVENTS LEADING TO THE ENACTMENT OF INTERSTATE BANKING LEGISLATION IN TEXAS

Date	Event
Sat. July 26, 1986	Texas Banking Commissioner James Sexton urges legislation allowing interstate banking. He has the support of both the State Governor and the House Speaker. The commissioner asks the legislature to consider both an interstate and a branch banking proposal in its special session called for August 6, 1986 (Houston Post, July 26, 1986).
Fri. August 1, 1986	The uncertain outlook of Texas banks is shaping unusual consensus among bankers to allow interstate banking; bankers fear that some banks may soon need help from larger and better-capitalized institutions outside the state (Wall Street Journal, August 1, 1986).
Fri. August 8, 1986	Consumer groups charge that legislative committees are set to consider within the next week measures that would open Texas to interstate banking, though none of the legislation has been seen by the public (Houston Post, August 9, 1986).
Wed. August 20, 1986	The Texas senate approves legislation that would allow both interstate and limited branch banking. The two bills and the proposed constitutional change pass 26-2 and are sent to the House for approval (Houston Post, August 21, 1986).
Thur. August 21, 1986	Stock prices of most major bank holding companies in Texas jump in active trading, as the Texas senate approves a sweeping interstate banking measure (Wall Street Journal, August 21, 1986).
Fri. August 22, 1986	The House Financial Institution's Committee approves and sends to the floor of the House a bill legalizing interstate banking and a proposed constitutional amendment allowing branch banking. The interstate banking bill is approved 8-1 and the branch banking propsal is unanimously approved (Houston Post, August 23, 1986).

Thur. August 28, 1986	Senators accept the House-passed version of the interstate banking and branching bills, sending the legislation to the Governor for his signature. If signed, the new legislation becomes effective on January 1, 1987 (Houston Post, August 29, 1986).
Tues. September 23, 1986	Governor Mark White signs into law the bill that allows out-of-state banks to purchase Texas banks without reciprocal measures from other states (Houston Post, September 24, 1986).

Table 1

REACTION OF BANK STOCK PRICES TO ANNOUNCEMENTS RELATED TO INTERSTATE BANKING LEGISLATON IN TEXAS

Dependent Variable[1] Rate of return on a portfolio of:	Constant Coefficient[3]	Estimated Coefficients: Market Return	Dummy[4] one	Dummy[5] two	Dummy[6] three	Dummy[7] four	F-Statistics
Texas Banks							
Large banks (4)	-0.0139*	0.9800*	0.0558*	0.0726*	-0.0083	0.0532	4.19*
	(2.85)	(3.86)	(2.54)	(2.72)	(0.28)	(1.96)	
Medium banks (7)	-0.132*	0.5588*	0.0482*	0.0875*	-0.0049	0.0425	4.55*
	(2.78)	(2.27)	(2.27)	(3.38)	(0.17)	(1.65)	
Small banks (5)	-0.0072*	0.1532	-0.0131	0.0438*	0.0188	0.0092	1.92
	(2.15)	(0.87)	(0.86)	(2.38)	(0.94)	(0.50)	
F-test[2]			3.3858*	4.4966*	0.2974	1.4974	
Out-of-State Banks							
Money-center banks (15)	-0.0010	1.2742*	-0.0027	-0.0054	0.0064	-0.0045	0.17
	(0.49)	(11.38)	(0.28)	(0.46)	(0.50)	(0.38)	
Large banks (4)	0.0015	1.1892	-0.0078	-0.0143	-0.0135	0.0040	0.66
	(0.62)	(0.46)	(0.72)	(1.08)	(0.94)	(0.30)	
Medium banks (149)	0.0019	0.7387*	0.0043	0.0035	-0.0253*	0.0137	2.38*
	(1.15)	(8.60)	(0.58)	(0.39)	(2.56)	(1.52)	
Small banks (172)	0.0046*	0.4647*	-0.0022	-0.0096	-0.0172*	-0.0011	1.63
	(3.48)	(6.74)	(0.36)	(1.33)	(2.17)	(0.15)	
F-test[2]			0.7991	1.6136	0.5428	1.5677	

*Significant at the 0.05 level.

1. Equally-weighted portfolio of banks grouped by size (number of banks in parentheses).

2. F-test for equality of estimated coefficients for different portfolios.

3. Absoulute value of t-statistics are in parentheses below the corresponding estimated coefficient.

4. Dummy one takes the value of one during the three weeks surrounding press reports that Texas banking commissioner will urge for legislation allowing interstate banking (last week of July 1986).

5. Dummy two takes the value of one during the two weeks surrounding press reports that the Texas Senate, the Texas House Committee and the Texas House have approved a bill allowing interstate banking (third and fourth weeks of August 1986).

6. Dummy three takes the value of one during a two-week interim period with no specific events relating to interstate legislation (first two weeks of September 1986).

7. Dummy four takes the value of one during the two weeks surrounding press reports that the bill allowing interstate banking has been signed into law by the Governor of Texas (last two week of September 1986).

Table 2

REACTION OF BANK STOCK PRICES TO ANNOUNCEMENTS
RELATED TO INTERSTATE BANKING LEGISLATION IN ARIZONA

Dependent Variable[1]	Estimated Coefficients		
Rate of return on a portfolio of:	Constant Coefficient[3]	Market Return[3]	Dummy Variable[3,4]
Arizona banks			
Medium banks (1)[2]	0.0057	0.478*	0.0467*
	(1.64)	(2.61)	(2.36)
Small banks (2)	0.0068*	0.5833*	-0.0041
	(2.37)	(2.90)	(0.26)
F-statistic			3.6749*
Out-of-state banks			
Money-center banks (15)	-0.0002	1.3132*	0.0142
	(0.06)	(8.88)	(0.91)
Large banks (8)	-0.0013	0.7850*	-0.0009
	(0.57)	(6.46)	(0.07)
Medium banks (115)	0.0045*	0.3966*	0.0122*
	(4.48)	(7.50)	(2.18)
Small banks (175)	0.0036*	0.1501*	0.0004
	(5.07)	(4.06)	(0.11)
F-statistic			5.0445*

* Significant at the 0.05 level.

1. Rate of return on an equally-weighted portfolio of banks groups by size and whether banks are in Arizona or out-of-state.

2. Number of banks in the portfolio.

3. Absolute value of t-statistics are in parentheses below the corresponding estimated coefficient.

4. A dummy variable that takes the value of one during the two weeks from April 6 to April 19, 1986.

5. F-statistic for the equality of estimated coefficient in different groups.

Table 3

REACTION OF BANK STOCK PRICES TO ANNOUNCEMENTS
RELATED TO REGIONAL BANKING LEGISLATION IN VIRGINIA

Dependent Variable[1]	Estimated Coefficients		
Rate of return on a portfolio of:	Constant Coefficient[3]	Market Return[3]	Dummy Variable[3,4]
Virginia banks			
Medium banks (7)[2]	0.0059*	0.6710	-0.0151
	(3.24)	(6.92)	(1.49)
Small banks (6)	0.0068*	0.2147*	-0.0216
	(3.19)	(1.90)	(1.06)
Out-of-state banks			
Money-center banks (15)	0.0001	1.2864*	-0.0097
	(0.04)	(8.41)	(0.61)
Large banks (8)	-0.0016	0.7616*	-0.0133
	(0.69)	(6.19)	(1.03)
Medium banks (149)	0.0046*	0.3833*	-0.0068
	(4.46)	(6.78)	(1.14)
Small banks (171)	0.0032*	0.1481*	-0.0012
	(4.62)	(4.02)	(0.31)

* Significant at the 0.05 level.

1. Rate of return on an equally-weighted portfolio of banks groups by size and whether banks are in Virginia or out-of-state.

2. Number of banks in the portfolio.

3. Absolute value of t-statistics are in parentheses below the corresponding estimated coefficient.

4. A market index and a dummy variable that takes the value of one during the two weeks from March 15 to March 29, 1985.

Footnotes

[1]Such devices include:

a. The use of the loophole whereby interstate banking acquisitions made by BHCs are grandfathered if they were undertaken before the BHC Act.

b. The Garn St. Germain Depository Institution Act of 1982 which grants out-of-state banking organizations the opportunity to bid for large failed banks as well as problem or failed thrifts.

c. The International Banking Act of 1978 and the Edge Act, which allows for limited interstate banking through international banking provisions.

d. Section 4(c) (8) of the BHC Act, which allows BHCs to own certain non-bank subsidiaries that are closely related to banking without geographic restrictions.

e. The use of the non-bank "loophole" as a means to cross state lines. A non-bank bank is an institution which, in order to avoid federal regulations under the BHC Act, offers either demand deposits or commercial loans, but not both.

The use of the above devices has been limited since they are usually costly to implement.

[2]See the Federal Reserve Bank of Chicago 1986 for a comprehensive survey of this issue.

[3]The other states which allowed unrestricted nationwide interstate banking by 1987 are Alaska, Maine and the District of Columbia. These states have a relatively small number of banks. Banking legislation was not covered by the press.

[4]Cornett and De (1989) provide some evidence on the pre-merger legislation effect on interstate bank mergers. Their findings indicate that stock price reaction to an actual merger proposal does not reflect all abnormal returns, since the stock price already reflects part of the positive market reaction at the date of the passage of interstate banking legislation.

[5]See for example Kahane (1977), Buser, Chen and Kane (1981), Eisenbeis, Harris and Lakonishok (1984), and Born, Eisenbeis and Harris (1988). It should be noted that banks do not need to operate across state lines in order to diversify. Services such as loan production offices allow banks limited access to out-of-state customers.

[6]See for example Clark (1988) and Gilligan, Smirlock and Marshall (1984).

[7]See, for example, James and Wier (1987a, 1987b), Pettway and Trifts (1985), Roll (1986), and Gilberto and Varaiya (1989).

[8]Daily rates of return were obtained from tapes (i.e., NYSE and ASE tapes and the OTC tape) of the Center for Research in Security Prices (CRSP) at the University of Chicago. Weekly returns are the compounded daily returns for each calendar week.

[9]Daily prices and dividend data were obtained from various issues of the over-the-counter Daily Stock Prices Record published by the Standard and Poor Corporation.

[10]The sample of banks used in this study includes all banks with traded stocks. Any changes in sample size for the different tests are due to failed, merger and other delisting.

[11]To examine the effect of nonsynchronous trading the following regression was run:

$$(3) \qquad R_{Pt} = \alpha_P + \beta_P R_{mt} + \beta_1 R_{m,t+1} + \beta_2 R_{m,t-1} + \sum_{K=1}^{4} V_{pK} D_K V_K + 1_{pt}$$

where $R_{m,t+1}$ represents the weekly rate of return on the CRSP value-weighted index over week t+1 (whereas the rate of return on the portfolio is measured over week t).

The coefficient and significance level of the dummy variables in this new version were not significantly different from the previous results.

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