

The Response of Bank Share Prices to Securitization Announcements

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This paper examines the impact of securitization announcements on share prices of multibank holding companies. Prior studies report share price responses are industry-specific. Because a few frequent issuers dominate multibank holding company securitizations, we move from an industry comparison to a comparison of firms within the banking industry. The data are partitioned on financial characteristics, and we observe significantly positive wealth effects for banks with high bond ratings, high financial leverage, low non-interest expense, and high issue frequency. We argue that these characteristics serve as proxies for, respectively, information asymmetry and creditworthiness, financial slack, comparative advantage in loan origination, and reputation. When the data are partitioned into Citigroup, MBNA and other MBHCs, we find that the two major securitizers differ substantially and that the other MBHCs exhibit significantly positive share price responses.

Introduction

Securitization is the process whereby generally illiquid loans and other receivables are placed into relatively homogeneous pools, underwritten, and sold in the form of securities, thereby liquefying the claims. Multibank holding companies (MBHCs), finance companies, manufacturers, and retailers securitize such assets as credit card loans, auto loans, equipment leases, mortgage loans, and consumer and home equity loans. Multibank holding companies account for the lion's share of all such securitizations. For example, MBHCs account for 41 percent and 51 percent of

the securitization issues in the samples of Lockwood, Rutherford, and Herrera (1996) and Thomas (1999), respectively.

Numerous motives for securitization by financial intermediaries have been suggested in the literature. These include such factors as the reduction in information asymmetry by providing more transparency into the nature of the securitized assets, the increasing of financial slack by expanding borrowing capacity, the reduction of risk through portfolio diversification, and serving as a source of lower cost financing. If the issuers' investors value these motives, positive wealth effects should accrue to shareholders when a securitization is announced.

Studies by Lockwood, Rutherford, and Herrera (1996) and Thomas (1999) compare several industries, and both report that the market reacts to announcements of securitization issues. Lockwood, Rutherford, and Herrera indicate that market wealth effects are industry specific, while Thomas suggests further research is necessary to determine whether securitization gains will continue. These studies have pooled the announcements across issuers, even though a few frequent securitizers dominate their samples. For example, only 39 firms represent 397 securitizations in the Lockwood, Rutherford, and Herrera study, and five banks account for 107 of the banking securitization announcements in the Thomas study. By limiting our study to one industry, we move from a comparison of industries to an examination of multibank holding companies and address the frequent securitizer issuer. Two major banks, MBNA and Citigroup, dominate our MBHC sample of announcements. Because any empirical results will be heavily weighted toward these two MBHCs, care must be exercised in the analysis and interpretation of the results. For this reason, we examined these two dominant banks and all others in separate partitions.

An event study methodology is used to evaluate the wealth effects of securitization announcements. A positive share price response to an announcement indicates investors perceive the transaction to be valuable, and wealth is created for the shareholders. Conversely, a negative share price response indicates wealth is being destroyed. Our findings indicate that wealth effects are firm specific. Significantly positive share price responses are observed for banks with high bond ratings, high financial leverage, low non-interest expense, and high issue frequency. We argue that these characteristics serve as proxies for information asymmetry and creditworthiness, financial slack, comparative advantage in loan origination, and reputation, respectively. Partitions based on the two most frequent issuers and all other MBHCs show that the frequent issuers exhibit differing share price reactions while the other MBHCs exhibit a positive share price response.

Securitization Process

The securitization market is characterized by the bundling and issuance of multi-tranche securities. Securitizations come about when a firm sets up a master trust that allows the firm to pass assets (loans) into the trust and to make subsequent securiti-

zation issues. The filing of shelf registrations achieves economy of scale by spreading the design costs over a number of issues, and economies of scope can occur if the trust outsources the servicing of the loans back to the original lender.¹

The trust may issue different tranches or classes of debt securities in a senior/subordinated structure backed by the collateral it holds. Individual tranche cash flow components are priced separately and are, therefore, closer to their true value. Gorton and Pennacchi (1990), Subrahmanyam (1991), Greenbaum and Thakor (1995), Hill (1995), and Winton (1995) reason that different types of investors, each with a comparative advantage in holding a particular category of security, will expend effort in evaluating their payoffs. Thus, securitization is a mechanism that reduces information asymmetry and allows each category to be priced closer to its true value than if one category of security is priced and sold at the average. In essence, securitizations contribute to market completeness.

Rating agencies monitor securitizations. Their monitoring reduces information asymmetry and can be used to improve a firm's reputation. Hill (1995) indicates that the required level of credit enhancement is worked out with rating agencies and insurers prior to the pricing of a transaction. In order to obtain the desired rating from all rating agencies,² the MBHCs may provide credit support to the issue through overcollateralization³ and/or guarantees from insurance providers. Levels of credit enhancement may become quite stringent for receivables of lower quality.⁴

Investors can observe the size of each tranche, the ratings, the issue price, and the coupon rate of each tranche, as well as how the residual tranche is credit enhanced. This partitioning of claims into different tranches increases the transparency of what would otherwise be opaque assets comprising a financial intermediary's balance sheet.

Information Asymmetry, Self Selection and Reputation Building

The issue of information asymmetry arises naturally when ownership is separated from management. The more firm-specific a company's assets, the more

¹ See Hill (1995) and Tufano (1989). See also DeMarzo and Duffie (1999) for a formal examination of security design issues.

² We define rating agencies as large ratings agencies such as Moody's Investors Service, Standard & Poor's, and Fitch IBCA, whose policies for rating are publicly available.

³ A class of bonds is overcollateralized to the extent that other classes of bonds absorb collateral default first. For example, suppose there are two tranches of bonds issued. The senior class is backed by the first 90 percent of the principal, and the junior tranche receives the remaining 10 percent. In the event of default, the junior tranche will absorb losses first and may receive nothing if its entire principal is used to cover default on the senior tranche. The senior tranche thus has the remaining 10 percent of principal available to it in the event of default, and so it is said to be 111 percent (i.e., 100/90) overcollateralized.

⁴ Goldstein (1996) provides a survey of the different rating agency approaches to analyzing mortgage-backed securities and the different meanings embodied in ratings from each.

information asymmetry exists about the firm and the greater will be the moral hazard perceived by outsiders. An MBHC self-selects whether it will securitize or retain its loans. Rating agencies provide monitoring, and this monitoring reduces information asymmetry and allows an MBHC to build reputation.

Fitch (1999a, 1999b) suggests that market discipline reduces moral hazard and ensures that only reputable lenders continue to securitize. Thus, a continuous history of successful securitizations signals an MBHC's strong financial position. Some firms protect their securitizations from default, even in the absence of a legal requirement to do so.⁵ Fitch (1999a, 1999b) describes this as a moral imperative that ensures continued market access and increases firm reputation. Such MBHC's are prepared to lose financial capital to protect their reputational capital.

Bond ratings are used by James (1987) as a measure of information asymmetry, by Thomas (1999) as a proxy for creditworthiness, and by Fitch (1999a, 1999b) as a measure of reputation. Because of the importance of bond ratings, one of our MBHC partitions is based on these ratings.

Capital Structure and Underinvestment

Contemporary research suggests other ways that securitization may enhance firm value. In addition to reducing information asymmetry and increasing creditworthiness, it is argued that securitization allows firms to move toward an optimal capital structure and, hence, ameliorate the underinvestment problem outlined by Myers and Majluf (1984). They point out that information asymmetry may cause a firm, in this case an MBHC, to underinvest or pass up positive net present value investment opportunities if the investment causes a wealth transfer from the old shareholders when new equity is needed to finance the investment. They indicate that if the firm has adequate financial slack, no new equity is required and all positive net present value projects can be undertaken.

Myers and Majluf suggest firms can increase financial slack by splitting the firm's assets into growth and non-growth pools and then selling the non-growth assets, or spinning off the non-growth assets into a separately financed vehicle. The sale or spin-off of the non-growth asset pool has two effects. First, financial slack is increased because non-growth assets have been replaced with cash, allowing the firm to invest in other positive net present value projects. Second, to the extent the assets are more accurately priced and thus reflect the higher true value, the proceeds of the sale create additional financial slack. If this generally occurs, this represents a positive net present value transaction and an MBHC's share price should increase.

In addition, the process may impact the firm's capital structure. Converting assets into cash does not directly impact the firm's capital structure if the assets are

⁵ Recourse may be provided even though the transaction does not require recourse to the issuer.

converted at book value. If the assets are sold at a value greater than the book value, the firm's book and market values of equity increase and, consequently, the firm's financial leverage is reduced. Because its increased financial slack is in the form of cash, the firm can then access the debt markets for additional funds without becoming too highly levered or violating regulatory leverage constraints.

When an MBHC's loans are securitized, non-growth loans are pooled and sold, thereby increasing the financial slack of the securitizer. The increased financial slack allows the MBHC to pursue new projects, in this case the origination of more (hopefully) profitable loans. To the extent that the pricing of the highly rated securities is above the average price, financial leverage is reduced, allowing the firm to secure more debt financing.

Until recently, financial institutions had specific capital requirements for loans irrespective of loan quality.⁶ By securitizing loans and removing them from the balance sheet, the capital requirement is circumvented and fee income is earned. Pavel and Phillis (1987) report that a binding capital constraint makes banks more likely to sell loans, and James (1988) finds that more highly leveraged banks are more likely to issue standby letters of credit, a form of securitization. Overall, securitization allows MBHCs to increase their effective leverage or financial slack, better manage their capital constraints, and ameliorate the underinvestment problem.

Lockwood, Rutherford, and Herrera (1996) examine financial slack using an industry relative measure. In the banking industry, however, regulators are concerned with an MBHC's capital adequacy, and deposit insurance premiums are determined by the ratio of a bank's capital divided by its risk-weighted assets, which are principally loans. Accordingly, we partition our sample based on the MBHC's loans-to-equity ratio and, similar to Lockwood, Rutherford, and Herrera, divide the sample into high and low financial leverage categories.

Comparative Advantage

Oldfield (1997) points out that the intermediation process involves origination, servicing, administration, and work-out, and these activities may be unbundled if the benefits outweigh the costs. Unbundling allows the internal costs and benefits to be directly compared with the costs and benefits of outsourcing the functions. He contends that there is no reason to expect that banks have an advantage in funding loans through deposits, but Santomero (1984), Fama (1985), and Bhattacharya and Thakor (1993) provide support for the proposition that banks have a comparative advantage in both the origination and the servicing of loans.

⁶The Basel Capital Accord of 2002 accounts for credit risk exposure by introducing different capital requirements depending on the risk of the loan. Unrated loans still present a moral hazard problem.

Empirical work by James (1987), Lummer and McConnell (1989), and Best and Zhang (1993) report that a borrower's share price increases when the firm announces bank loan agreements. This indicates that bank loans signal information to the market that is not available elsewhere. The ongoing bank-borrower relationship creates the opportunity for banks to collect a history of information, and this information may be reusable for a particular borrower and across borrowers of similar types. In addition, a firm may reveal information to a bank that it does not want to publicly release because of its possible use by competitors.

Chan, Greenbaum, and Thakor (1986) show how bank asset quality depends on the bank's effectiveness in screening loan applicants. They suggest that a bank's efficiency in screening and its ability to reuse information give it a comparative advantage relative to other financial intermediaries. The removal of loans from the balance sheet through securitization allows the bank to focus on the activities in which they have a comparative advantage.

We use two variables to proxy comparative advantage. First, the ratio of non-interest-expense-to-loans provides insight into the origination process and subsequent servicing costs. A high ratio is consistent with costlier loan origination and servicing functions. Second, a high bad debt provision ratio, as measured by provisions-for-bad-debt-to-loans, may reflect a conservative approach to classifying problem loans and/or may identify poor screening in the origination process. Partitions based on these two variables provide insight into the impact of comparative advantage on MBHC's securitization announcements. Pavel and Phillis (1987) argue that securitizers with a comparative advantage in origination derive the most benefit.

Partitioning of Variables

In summary, five separate partitions based on firm characteristics are formed and analyzed. The first partition uses the MBHCs' ratings to divide the sample into three groups. The highest rating group comprises those MBHCs with Moody's ratings of Aa2 and Aa3. The middle group is composed of A1 to A3 ratings, while the lowest group includes those rated Baa1 and lower. The next four partitions are formed by ranking the MBHCs on financial characteristic variables and dividing the sample at the median based on each characteristic. Thus, the second partition is based on the leverage ratio (loans/equity), while the third partition divides the MBHCs with respect to the non-interest expense measure (non-interest expense/loans). The third and fourth partitions are based on bad debt provisions as a percent of outstanding loans and frequency of issue (number of issues), respectively.

Finally, because of the dominance of MBNA and Citigroup, we create a sixth partition based on issuer: MBNA, Citigroup, and other MBHCs. The results provide further evidence on firm-specific share price response for the two most frequent issuers.

Previous Empirical Research

Recent studies by Lockwood, Rutherford, and Herrera (1996) and Thomas (1999) use event-study methodology to evaluate the wealth effects of securitization. Because of the different time periods, event windows, and industries examined, a direct comparison is difficult. The closest comparison that can be made for these two studies involves their announcement day +1 results. Both studies report a positive statistically significant return for the day +1 window for the entire sample, but neither finds bank returns are significantly different from zero.

More specifically, Lockwood, Rutherford, and Herrera examine 294 securitizations involving banks, finance companies, and automobile and other industrial companies over the 1985–1992 period.⁷ Their day -1 event window generates a significantly negative share price response overall, and that response is driven by the banks' negative reaction. For day 0 the overall response is positive and finance companies and sound banks drive these responses. The autos category and the other category exhibit no significance on either day. To further identify industry differences, Lockwood, Rutherford, and Herrera examine relative financial slack for banks and finance companies. They find that the responses for banks are positively related to relative financial slack but report no relation for this variable for finance companies.

Thomas (1999) examines 236 securitizations for banks, finance companies, manufacturers, and retailers for the 1991–1996 period.⁸ To determine if a wealth transfer occurs, he uses a sub-sample of 136 securitizations for firms with listed bonds. His results show that over the entire 50 days prior to and on the announcement date, banks, finance companies, and manufacturers exhibit statistically significant excess returns. Retailers also exhibit positive, but not statistically significant returns, while manufacturers' returns are statistically positive. Using a cross-sectional regression, Thomas finds a significant relation between Moody's bond ratings and excess returns. That is, firms with higher bond ratings elicit higher excess returns.

Because our sample consists of only of MBHCs, we compare firms within the banking industry. In addition, the partitions reflect different financial and operating characteristics as well as security ratings and frequency of issues.

Data and Methodology

The International Financing Review Platinum database, IFR, an information product of Thomson Financial Publishing, and the Dow Jones Interactive Index are

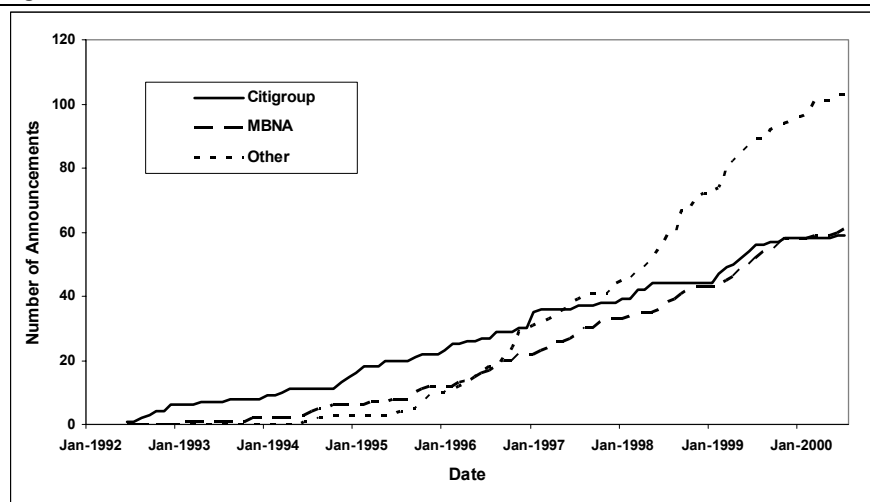
⁷ Their sample consisted of 39 firms and 397 publicly offered securitizations announced in the *Asset Sales Report*. A reduced sample of 294 useable observations was obtained; 121 issues by banks, 48 by finance companies, 65 by automobile companies and 60 by other industrial companies.

⁸ Five banks are responsible for 107 of the 121 banking announcements.

used in the present study. IFR updates its information daily, and its sources include news wires such as Reuters, proprietary surveys of all the major investment banks, and private discussions with banks. IFR securitization announcements were cross checked with the Dow Jones Interactive Index, an online service that offers current and historical articles published in numerous international news publications.⁹ A screen of the IFR database identified 233 securitization announcements by 24 U.S. multibank holding companies (MBHCs) over the time period from January 1992 through July 2000.

Figure 1 shows the cumulative securitization announcements for Citigroup, MBNA, and all other MBHCs. It can be seen that during this period Citigroup was an early leader in securitization and continued to be a frequent issuer. MBNA entered the market later, but issued at an accelerated rate and matched Citigroup's issues by the end of the sample period. As more issuers entered the market, the other MBHCs gained an increasing proportion of the securitization market.

Figure 1—Cumulative Securitization Announcements



Securitization transactions are generally marketed and structured in consultation with investors prior to the launch. Therefore, investors have a large amount of information because of articles in the financial press mentioning the upcoming securitization issues and their preliminary bond ratings. As with Thomas (1999), we find that the dissemination of information creates a problem in correctly identifying

⁹ In order to reduce search time we confined our search to a select group of publications that consistently reported the transactions. These were: the *Wall Street Journal*, the *Capital Markets Report* (a Dow Jones Publication), Dow Jones News Service articles, and *Euroweek*.

announcement dates. We use sold, launched, issued, or priced as the announcement date.

Mosebach (1999) suggests that commercially available announcements rather than *Wall Street Journal* announcements drive the market, and his event-study results support the argument that the market reacts to commercially available announcements. While he did not compare commercially available announcements with announcements that are published in the financial press, we include both financial press and IFR announcement dates.¹⁰ Thomas (1999) acknowledges the difficulties associated with determining the initial announcement date. Because of these difficulties, he uses an event window of 50 trading days.

Of our 233 announcements in the present study, 224 are reported in both the IFR and the financial press. Seventy-two percent of the observations are on the same day, and 96 percent fall within a five-day event window. Overall, when there are differences between the financial press announcement date and the IFR announcement date, the financial press tends to lead the IFR. When the dates differ, we use the earlier date as the event date. By using both IFR and the financial press, the announcement dates are more precisely identified, allowing the use of a smaller event window.

Standard Brown-Warner (1985) event study methodology is used to examine securitizer share price movements at and around the announcement dates of securitization agreements. The necessary daily returns were obtained from the Center for Research in Security Prices (CRSP). The market model parameters are estimated as

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}, \quad (1)$$

with a 255-day estimation period ending 46 days before the announcement date. Average abnormal daily returns are calculated by averaging the abnormal daily returns across all MBHCs and the cumulative average abnormal returns (CAARs) are obtained by summing over the five-day (-2,+2) event window. To provide information about the robustness of this test, the nonparametric generalized sign test is also presented. This test makes no assumptions regarding the distribution of share price returns, but is based on the signs of the residuals rather than on the values.

Results

Table 1 shows several characteristics for all 24 MBHC securitizers. Citigroup and MBNA comprise 55.4 percent of the total number of issues. While their average issue sizes are not the largest, they are by far the two largest securitizers in dollar terms. Thus, any analysis that uses pooled MBHC data must be viewed with caution

¹⁰ Fery, Gasbarro, Woodliff, and Zumwalt (2003) report significantly positive market responses to loan announcements published in the financial press, but insignificant responses for those that were not published in the financial press.

Table 1—Sample Characteristics

Securitizer	Number of Issues	Percent of Total Issues	Average Value US\$ (millions)	Moody's Ratings	Year of Rating Change	Type of Asset Being Securitized				
						Credit Cards	Asset Backed	Home Equity	Mortgage	All Other
Citigroup	68	29.18	768	Aa3-Aa2	1999	43	17	—	4	4
MBNA	61	26.18	758	A3-Baa2	1997	58	3	—	—	—
Bank One	18	7.73	777	AA3	—	8	7	2	—	1
Chase Manhattan	14	6.01	1019	A3-A2-A1-Aa3	1995-1996-1997	9	3	—	1	1
First USA	11	4.72	641	Baa2	—	6	5	—	—	—
Capital One	10	4.29	543	Baa1 - Baa3	1999	8	2	—	—	—
Bank America	8	3.43	598	A2-Aa3-Aa2	1997-1999	5	2	—	1	—
Provident Financial	7	3.00	339	Ba1	—	—	—	5	2	—
Greenpoint	6	2.58	462	Ba2	—	—	1	1	—	4
Bank Boston	4	1.72	1004	A2	—	—	1	2	—	1
Key Corp	3	1.29	849	A1	—	—	1	—	—	2
FleetBoston	3	1.29	735	A2	—	3	—	—	—	—
J P Morgan	3	1.29	730	A1	—	—	1	—	—	2
Wachovia	3	1.29	562	Aa3	—	3	—	—	—	—
Signet Bank	2	0.86	790	Baa1	—	1	—	1	—	—
First Union Corp	2	0.86	660	A1	—	1	1	—	—	—
Fleet Financial	2	0.86	522	A2	—	2	—	—	—	—
Bayview	2	0.86	304	Ba3-B1	2000	—	—	—	—	2
Wells Fargo	1	0.43	1211	A1	—	—	1	—	—	—
Norwest	1	0.43	1070	Aa3	—	—	—	—	—	1
Huntington Bancshares	1	0.43	495	A2	—	—	—	—	—	1
Life Financial	1	0.43	400	NR	—	—	—	1	—	—
Irwin Financial	1	0.43	150	NR	—	—	—	1	—	—
Omega Worldwide	1	0.43	83	NR	—	—	—	—	1	—
Totals	233	100.00	—	—	—	147	45	13	9	19

Note: This table lists the 24 securitizers ranked first on the number of issues and second on average size of issue. Several issuers had ratings changes over the 1992-2000 period, e.g., Chase Manhattan was upgraded three times: from A3 to A2 in 1995, to A1 in 1996, and to Aa3 in 1997. NR denotes not rated. Credit card and asset backed loans account for 63 and 19 percent of total securitizations, respectively

because the results will be strongly influenced by these two banks. The average issue size of two other banks, Chase Manhattan and Bank Boston, is over a billion dollars. Overall, the ratings ranged from Aa3 through B1, and three of the MBHCs were not rated. Two of the banks, Bank America and Chase Manhattan, had rating upgrades over the period, and four others suffered ratings downgrades. The years of the ratings changes are presented. In general, it appears that the more frequent securitizers are more highly rated. The type of asset being securitized is also shown. Credit card and asset-backed loans comprise 63 percent and 19 percent of the securitizations, respectively, followed by home equity loans and mortgage backed loans. The all other category comprises automobile loans, commercial loans, manufactured housing, and miscellaneous loans.

Table 2 presents summary statistics for the partitioning variables for the entire sample and the above- and below-median groups. It is observed that the mean and median are reasonably similar on all three measures, indicating an absence of outliers. In addition, the mean for the above-median groups is approximately twice the mean for the below-median group. Although not reported, the mean value for each variable of the higher group is significantly different from the mean value of the lower group, suggesting these variables can possess discriminatory power.

Table 2—Descriptive Statistics

Sample	Leverage Ratio	Non-Interest Expense	Bad Debts
All Firms:			
Mean	7.429	0.104	0.021
Standard Deviation	2.269	0.059	0.008
Median	7.558	0.074	0.021
Maximum	15.210	0.289	0.050
Minimum	2.460	0.001	0.008
Firms Above Median:			
Mean	9.160	0.150	0.028
Standard Deviation	1.731	0.049	0.006
Median	8.578	0.160	0.030
Firms Below Median:			
Mean	5.697	0.057	0.015
Standard Deviation	1.160	0.018	0.003
Median	5.703	0.063	0.015

Note: Firms are partitioned based on median values of Leverage Ratio (loans-to-equity), Non-Interest Expense ratio (non-interest expense-to-loans) and Bad Debt ratio (provisions for bad debt-to-loans). Statistics for all securitization announcements, and for the above- and below- median groups, are presented for each variable

Table 3 displays event study results for all 233 announcements and for each of the partitions described above. For non-partitioned data, the CAAR for the five-day

(-2, +2) event window is 0.54 percent and is statistically significant at the 0.01 level.¹¹ In addition, the nonparametric z-test indicates the number of positive CAARs is significantly greater than the number of negative CAARs at the 0.05 level.¹² Overall, these results suggest the market favorably views MBHC securitizations, and positive wealth effects accrue to MBHC shareholders.

Table 3—Share Price Response to Securitization Announcements

Data Partitions	CAAR (%)	Z value	Positive: Negative	Generalized Sign Z
All Multibank Holding Companies	0.54	2.63***	128:105	2.25**
Ratings				
MBHC Rating Aa2 - Aa3	0.89	2.58***	58:42	2.25**
MBHC Rating A1 - A3	0.56	1.18	32:29	0.74
MBHC Rating Baa1 - Below	0.03	0.61	38:34	0.70
Leverage Ratio				
Above Median	0.86	2.82***	66:49	2.23**
Below Median	0.06	0.66	56:52	0.75
Non-Interest Expense				
Above Median	0.03	0.37	59:52	1.09
Below Median	0.92	3.14***	63:49	1.92**
Bad Debts				
Above Median	0.49	1.86**	61:49	1.80**
Below Median	0.46	1.65**	61:52	1.21
Frequency of Issue				
Above Median	0.62	2.75***	116:91	2.44***
Below Median	-0.13	0.13	12:14	-0.16
Citigroup, MBNA and Other				
Citigroup	0.63	1.42*	36:32	1.10
MBNA	-0.13	0.03	30:31	0.02
Other	0.87	2.77***	62:42	2.46***

* Indicates significance at the 0.10 level using a one-tailed t-test

** Indicates significance at the 0.05 level using a one-tailed t-test

*** Indicates significance at the 0.01 level using a one-tailed t-test

Note: CAARs denote cumulative average abnormal returns to securitizers, and z-values measure significance over a five-day (-2,+2) event window. The generalized sign z statistic tests for significance based on the ratio of positive:negative CAARs for each partition. The sample covers the 1992-2000 period and consists of 233 announcements

While the overall response is positive, the percentage of negative CAARs is approximately 45 percent (105/233). To explore more fully the reasons for these results, the data are sequentially partitioned based on bond ratings, financial leverage, comparative advantage (non-interest expenses and bad debt provisions), and the number of issues by each MBHC. In addition, because Citigroup and MBNA

¹¹ Event windows of (-2,0), (-1,+1), (-1,0), (0,+1) and (0,+2) also were examined, but are not reported. The results are qualitatively similar, although slightly less significant.

¹² The number of announcements in the sample can be determined by adding the number of securitizations with positive CAARs to the number of those with negative CAARs.

are the dominant issuers, a partition based on Citigroup, MBNA and others is examined. Information asymmetry, capital structure and underinvestment, comparative advantage, and reputation building have been argued as reasons for securitization.

Information Asymmetry and Bond Ratings

Because prior studies suggest that securitization relationships may not be uniform across issuers, our partitions focus on firm-specific characteristics. A partition based on securitizer bond ratings allows us to focus on information asymmetry and creditworthiness. When the data are partitioned based on bond ratings, we find the MBHCs in the highest rating group benefit most from securitization announcements. The CAAR for this group is substantially larger than the CAAR for the entire sample and is significant at the 0.01 level. Interestingly, the CAAR decreases monotonically in level and statistical significance over the three ratings groups. Both the z-score and the generalized sign z indicate the number of securitizations resulting in positive CAARs is statistically significant only for the MBHCs with the highest ratings. These results are consistent with the Fitch observation that only reputable lenders may securitize repeatedly. We find that Citigroup and Bank One, the most frequent and the third most frequent issuers, drive these results. They are both in the highest rating group. These results are similar to the sound bank results presented by Lockwood, Rutherford, and Herrera (1996).¹³

Leverage and Financial Slack

Securitization can be motivated by a firm trying to create financial slack, and is particularly important for financial intermediaries that are highly levered or are near the regulatory leverage constraints. The partition based on financial leverage indicates that firms with leverage ratios above the median generate statistically positive returns at the 0.01 level. In addition, fifty-eight percent of the high leverage, low financial slack MBHCs exhibit positive CAARs that are significant at the 0.01 level. Those below the median are about equally divided between positive and negative CAARs and the CAARs are not statistically significant. These results are consistent with the idea that high leverage firms may be securitizing in an attempt to increase financial slack or manage capital structure and that the market views securitization favorably.

¹³ In a related study, Harper and Wingender (2000) report that more risky firms obtained greater benefit than less risky firms from interest rate swaps. Their measures of risk are total firm standard deviation and beta, whereas we measure risk by bond ratings. Also, the swap market is a different type of market involving (brokered) contracts between two counterparties, whereas the securitization process involves credit enhancement provided through overcollateralization, and insurance providers, and each tranche is rated separately by rating agencies. It is difficult to generalize results between these markets.

Comparative Advantages

To examine comparative advantages, partitions are developed that focus on expenses associated with origination and servicing, and on loan loss provisions. Two variables are used to proxy comparative advantage. First, non-interest-expense-to-loans provide insight into the origination process and subsequent servicing costs. A high ratio is consistent with costlier loan origination and servicing functions. When the data are partitioned on this variable, issuers below the median exhibit CAARs that are significantly positive at the 0.01 level. These results support the Pavel and Phillis (1987) argument that securitizers with a comparative advantage in origination derive the most benefit.

A high bad debt provision may reflect a conservative approach to classifying problem loans and/or poor screening in the origination process. Thus, because the bad debt provision variable may provide either a positive or negative signal, the relation between this variable and the CAARs is ambiguous. The observed CAARs both above and below the median are significantly positive at the 0.05 level. The generalized sign z is significant at the 0.05 level for those above the median, but is not statistically significant for the below median group.

Reputation Building

A partition designed to focus on reputation building is based on frequency of issue. The MBHCs were divided into two groups based on the number of securitization announcements. The median number of announcements is three, and above-median and below-median groups were formed. The differences in total announcements between the two groups are large. This is because of the large number of announcements by several of the MBHCs in the above-median group. For this group, the CAAR is 0.62 percent and is significantly positive at the 0.01 level. It should be noted that several highly rated MBHCs dominate this group. Conversely, the negative mean CAAR for the below-median group is not statistically significant. These results support the Fitch (1999a, 1999b) argument that the more creditworthy MBHCs will continue to securitize.

Securitizer Self-Selection

Finally, we partition the MBHCs into Citigroup, MBNA, and all other banks to see how the two largest issuers of securitizations impact the overall sample and whether the two most frequent issuers are similar or different. The two dominant issuers are very different in terms of firm characteristics and share price response. Citigroup is highly rated, highly levered, and above the median in its provision for bad debts. In contrast, MBNA is lower rated and suffered a rating downgrade during the period. Also, it is below the median in both financial leverage and bad debt provisions.

In Table 3 we see that Citigroup has a CAAR of 0.63 percent that is significant at the 0.10 level, while MBNA has a statistically insignificant abnormal return of -0.13 percent. When all other banks are considered, we see a 0.87 percent CAAR that is significant at the 0.01 level. The ratio of positive to negative responses for this group is 62:42, and the generalized sign z is significant at the 0.01 level. These results indicate that the overall significance is strongly associated with the other banks. While Citigroup has a positive abnormal return, the statistical significance is much lower than for the other group, whereas MBNA's CAAR is negative but insignificant.¹⁴

Conclusion

Securitization is a financial innovation that contributes to market completeness by the repackaging of cash flows in the creation of new securities. Lockwood et al. (1996) and Thomas (1999) examine several types of firms that securitize and the nature of the assets backing the security. Lockwood, Rutherford, and Herrera consider banks, finance companies, auto companies and other securitizers, while Thomas considers banks, finance companies, industrial companies' finance subsidiaries, and retailers. Their studies report similar aggregated results, but different responses for banks. Specifically, weak banks appear to drive the negative share price response reported by Lockwood et al., while both weak and sound banks drive the positive results shown by Thomas.

Our study focuses on bank securitizations, but recognizes that the results may be firm driven. Using five separate partitions based on firm-specific characteristics, we find positive share price responses for banks that: (1) are highly rated, (2) have high financial leverage, (3) have low non-interest expense, (4) have high provisions for bad debts, and (5) are frequent issuers. None of the banks exhibited all of these characteristics.

Overall, securitizations of higher rated banks generate positive CAARs while securitizations by the lower rated banks produce negative, though not statistically significant, CAARs. In order to identify firm-specific effects, we sequentially partition the announcements on ratings, leverage, bad debt provisions and the number of issues.

¹⁴ At the suggestion of an anonymous reviewer, we performed t-tests to determine if the mean CAARs were significantly different for each partition. The means of the non-interest expense partitions are significantly different at the 0.10 level. Two other partitions, leverage ratio and MBNA versus other, barely missed the 0.10 level, with p-values of 0.11. These results are similar to an event study reported by Carow and Kane (2002), who point out the lack of significance is not necessarily surprising. If one partition exhibits a response significantly different from zero while another exhibits no significant response, the two partitions may not exhibit a significant difference from each other.

Our results suggest that share price response to securitization is firm specific. It appears that the identity of the securitizer is an important signal in determining share price reaction. Ratings are critical in establishing the credibility of the signal, although conservative financial characteristics of lower rated banks allow them to securitize without severe negative market response. It appears that conservative financial characteristics serve to mitigate the effects of a lower rating.

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