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An Exploration of Income Characteristics: Analyzing Targets and Acquirers in Banking Mergers and Acquisitions

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An Exploration of Income Characteristics: Analyzing Targets and Acquirers in Banking Mergers and Acquisitions

An Honors Thesis submitted in partial fulfillment of the requirements for Honors in the *College of Business Administration, School of Accountancy*

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ABSTRACT

With the large number of bank mergers occurring from 1990 to 2007, it is useful to know why acquirers chose to merge with these targeted entities. This research analyzes the income characteristics of targets and acquirers for this period to determine any indicators that distinguish an acquirer's income structure from a target's. To do this, income statement items from these banking entities are examined using factors such as size, serial or nonserial classification, and (for the targets only) public or private status. The research concludes that acquirers and targets indeed attain different income, cost, and efficiency characteristics.

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Introduction

As bank holding companies were allowed increasing freedom regarding mergers and acquisitions in the 1980s and 1990s, merger activity grew to remarkable levels. Bank holding companies choose to acquire other firms for a variety of reasons, including geographical expansion, removal of potential (and actual) competitors, and diversification of market share, among others.

Much research in the financial industry purports to explain how such mergers have affected profitability, efficiency, and shareholder returns, but there is little research concerned with how bank holding companies have actually chosen to acquire such firms in terms of their income structure. In other words, what kinds of income characteristics do acquiring bank institutions generally seek to obtain through a merger? Do substantial differences exist within the targeted entities and the acquiring entities themselves?

This research explores the types of institutions targeted by acquirers by assessing the income statements of targets. To provide context for this primary comparison, this research also performs two additional types of examinations, one among the acquirers, and one between the targets and acquirers.

The acquirer analysis, which is presented first, observes the income characteristics of the acquirers. This information will describe the different sources of revenue and expenses that exist for these acquiring institutions and each source's proportion relative to interest and noninterest income. This examination will also investigate the differences that occur among the acquirers based on the factors of size as well as how frequently the bidding firm engages in acquisitions by classifying them as serial or nonserial acquirers. (A serial firm is one that acquired five or more institutions within any three-year period from the year 1990 to 2007 as in Fuller, Netter, and Stegemoller (2002). All other firms are designated as nonserial.)

A similar analytical procedure, presented following the acquirer analysis, will be utilized when examining the targeted institutions. Within the targets, I analyze income characteristics based on size, public or private status, and classification as part of a serial or nonserial transaction.

Finally, once the pools of acquirers and targets are separately examined, the final procedure is to compare them to one another. What differences exist between the acquirers' income structures versus that of the targets'? These income characteristics will be assessed based on size and serial or nonserial classification of acquirers and targets.

Literature Review

Much of the academic literature concerned with mergers and acquisitions addresses the determinants of acquisition premiums and returns in response to a merger event. Despite many studies focusing on the different characteristics of acquirers and targets, relatively few address the issue of specific income structure characteristics in relation to the event of a merger.

Relevant literature and previous research on this topic has determined some trends relating target income sources and the likelihood of a merger. A study by Gart (1998) explains that banks have acquired other depository institutions in addition to mortgage banking and servicing companies, credit card companies and portfolios, nondepository financial institutions such as financing and leasing firms, and investment banking companies. The same study also indicates that the existence of product diversity is a promoting factor for bank mergers. Another study by Check, Walter, and Randall (2009) suggests that because “noninterest income, such as financial planning services and safe deposit box fees, tends to be less interest-rate sensitive,” (p. 46) a bank with a “healthy portfolio of noninterest income might be considered an attractive target.” Both of these studies advise that acquiring institutions seek to hedge against uncertainty in the market by diversifying revenue-generating activities. Thus, acquiring banks will opt to “play it safe” by merging with firms that have a variety of reliable revenue streams.

However, a study by Beccalli and Frantz (2013) proposes that *specialization* of revenue types, not diversification, encourages an entity to become a target in an acquisition. Primarily noting the specialization of interest income on loans, they state that “banks with more specialization on the loan side are less likely to be acquirers” (p. 279). The same study also notes that “targets typically tend to be cost and profit inefficient” (p. 287). A study by Pasiouras and Gaganis (2007) agrees with this statement, also finding that acquirers tend to be more cost efficient and profitable when compared to targets. These conclusions suggest that acquirers seek firms that have the potential for cost and efficiency improvement, but also attain a concentration in loan interest. Thus, by merging with such a firm, the acquirer can use its resources to improve the firm while learning from the target’s specialized knowledge.

Meric, Serper, and Ilhan (1991) determine that, in general, “there are significant differences between the financial characteristics of the acquiring banks and the acquired bank.” More specifically, a study by Hernando, Nieto, and Wall (2009), identifying the relationship between the cost to income ratio and likelihood of acquisition, also concludes that “acquirers prefer to obtain banks with expense cutting opportunities” (p. 1027). These results suggest that while acquiring banks will still target firms with strong revenue, they may also target banks with lower efficiency because “efficiency gains are more likely to be achievable if the target bank is underperforming” (p. 1024). In this way, Hernando, Nieto, and Wall (2009) suggest that acquirers aim to merge with less efficient targets because the acquirers can apply more sophisticated operations knowledge to show profitability gains with struggling targets. However, Wheelock and Wilson (2000) find that “although inefficient banks might be ripe for takeover…on average, high cost inefficiency has lowered the probability that a bank will be acquired” (p. 134). Thus, in contrast with Hernando, Nieto, and Wall (2009), this study indicates that cost inefficiencies may not be a particularly prominent characteristic for targeted banks.

Hypotheses

Based on the preceding review of relevant literature, it is apparent that three possible hypotheses exist that suggest motivations for target acquisition. These three hypotheses serve to guide the following analysis and interpretation of collected data.

Hypothesis One prompts that acquirers desire targets with a healthy distribution of income streams. This hypothesis is based on the notion that acquirers wish to diversify to remain competitive, and thus will accomplish operational diversity by merging with firms that already control a variety of revenue strategies. Furthermore, the acquirer can profit from increasing the efficiency of the target and thus increase both revenue and efficiency with one action.

Hypothesis Two proposes that acquirers desire targets with a specialized source of income. The target might have a competitive advantage by specializing in a certain operational strategy, which could be highly desirable to potential bidders. In order to capitalize on this advantage, an acquirer will merge with the target and profit from the gain in operational knowledge. The acquirer may also wish to merge with a specialized target to diversify its revenue sources. For example, a bank that wishes to expand its operations will anticipate acquiring a firm that employs a strategy which focuses on interest earned off foreign loans. In this way, the acquirer will benefit from increased diversity without learning a new niche of the business "from scratch".

Hypothesis Three states that acquirers intend to merge with targets that are underperforming or inefficient. Because a target is suffering from poor operational results, the acquirer may perceive the transaction as a bargain. But why would a firm acquire a mediocre entity? The acquirer may have a considerably valuable competitive advantage that it wishes to apply to the underachieving target and thus profit from improving the target's operational mechanisms. This competitive advantage may stem from economies of scale or other efficiencies that the target lacks. Additionally, the acquirer must perceive that the target retains the potential for success after acquisition despite its currently underwhelming performance.

Methodology

The data for this research is compiled using the record of bank acquisitions and bank holding company data available from the Federal Reserve Bank of Chicago's website. Using the historical data, the analysis focuses on a 18 year period from 1990 to 2007. This research does not include data following 2007 because of the uncertainty and volatility in merger activity as well as the overall market decline associated with the global financial crisis in the following years. The financial system was impacted particularly hard during the global financial crisis, which interrupted the "normal" acquisition behavior in the years leading to the crisis. Thus, this period of abnormal market conditions is excluded from the data set in order to isolate only the acquisition behavior under relatively “normal” conditions that existed from 1990 to 2007.

To collect data on the acquirers, this study utilizes the FR Y-9C Report Forms and Instructions. These forms are available on the Federal Reserve Bank of Chicago’s website as well as the actual data. The FR Y-9C collects “basic financial data from a domestic bank holding company, a savings and loan holding company, and a securities holding company on a consolidated basis” (“Reporting Forms”). Of the consolidated financial statements included in the FR Y-9C report, this study uses the information contained in this income statement. Because financial data for the bank holding companies are collected quarterly, the fourth quarter form is used for each year. The format of these forms changes in different ways throughout the time period examined in this research. Consequently, some reporting items of income and expense are discontinued after a certain point. These line items may also be combined with other items. Because of these changes, this study is limited to only those data that could consistently be extracted from the form for all of the years examined.

This study uses the Replication Server System Database Identification (RSSD ID) as a primary identifier for both acquirers and targets. An RSSD ID is a unique identifier for entities registered with the Federal Reserve. This identification number is utilized to collect the financial statement data for both targets and acquirers. This study matches the targets to each RSSD ID using online sources at the Wharton Research Data Services (WRDS), the National Information Center’s (NIC) “Institution Search” function, as well as the search functions on BankEncyclopedia.com. Unfortunately, not all targets are identifiable for a variety of reasons. For one, some targets contain service identifiers (such as asset management or credit card services) that are not searchable in the data sources used to find the majority of the targets. Additionally, although important, the inclusion of nonpublic targets in this research adds another challenge. Nonpublic entities are not subject to the same reporting requirements as public entities, so financial information is not necessarily available to the general public. As a result, the data collected amounts to (at most) 1,382 acquisitions, including (at most) 727 target profiles.

Four categories of ratios and expressions are used to analyze the different characteristics of the acquiring and targeted institutions (Please see the Appendix for ration definitions). The first category, Interest Income Ratios, serves to collect different sources of interest income, divided by the sum of total interest and noninterest income. The second category, Noninterest Income Ratios, collects different proportions of *noninterest* income, divided by the sum of total interest and noninterest income. Ideally, both of these categories would sum to one when added together; however, due to structural changes in the reporting forms during the period the research examines, this study is not able to attain all possible sources of interest and noninterest income. Despite this inherent problem, this research collects a large majority of income sources.

The third category, Expense Ratios, defines two proportions of certain noninterest expenses, divided by the sum of total interest and noninterest expense. As with the income ratio categories, the study is unable to compile more expense classifications because of structural changes in the identifiers contained in the Y-9C Report Forms for the period under examination. Finally, the fourth category of expressions describes other interesting and important income qualities that speak to a general revenue structure or overall efficiency of these banking institutions.

Presentation of Results

This section describes the results of the research for three comparisons. First, the study compares results among the acquiring institutions. A comparison of the results for the targeted institutions follows. Third, comparisons are drawn *between* targets and acquirers.

Comparison among Acquiring Institutions

As reported in *Table 1*, interest income derived from loans in domestic offices is the largest contributor to income for acquiring institutions. The average percentage for all acquirers is about 61.77%. However, differences exist when the acquirers are separated based on serial status. Serial acquirers have a slightly lower average of 60.5%, compared to 62.6% for nonserial acquirers. The second largest contributor to income is interest and dividend income on securities, with an average among all acquirers of 17.64%. For this type of income, a larger distinction exists between serial and nonserial firms. Serial acquirers derive an average of 19.07%, whereas nonserial firms attain a lower average of 16.72%. These results suggest that serial firms rely slightly less on the main source of income, interest earned from loans in domestic offices. In this way, serial acquirers "spread out" their income sources more than nonserial acquirers to gain operational advantage.

The remaining income categories sum to about 10.93% of total interest and noninterest income for all acquirers. These seven contributors are directly compared in *Chart 1*. As shown, there is little differentiation between serial and nonserial firms. Even though the differences are small, serial acquirers consistently include a higher percentage of these sources than nonserial acquirers (five out of the seven categories depicted). Thus, serial acquirers tend to be marginally more diversified than their nonserial counterparts. It is clear that service charges account for the largest of the seven categories (about 5% for both types of acquirers). The second largest source is income from fiduciary activities, which contributes about 2.5% of total interest and noninterest income. The remaining five sources of income each contribute about 1% or less to total interest and noninterest income.

For expense ratios, the average amount of expense related to salaries and benefits is 27.37%. Serial firms averaged a lower percentage of about 26.01%, while nonserial firms had a higher portion of 28.25%. For expenses of the premises and fixed assets, acquirers average about 7.78%. Here, serial and nonserial firms attain similar percentages, indicating that this particular expense is not a reliable factor in distinguishing serial and nonserial acquirers. As depicted in *Table 1,* serial acquirers on average hold this category as 7.52% of total expenses, and nonserial acquirers hold 7.95% on average.

These income characteristics tend to coincide with Hypothesis One. That is, serial acquirers display behavior that indicates they like to "branch out" by merging with other firms. Furthermore, such acquirers that readily merge with other firms might logically be expected to already diversify their operations.

Next, I examine different income ratios based *only* on the size of the acquirer. To do this, firms are separated into quartiles based on the value of the firm (using market capitalization). These proportions are shown in *Table 2*. Using this type of differentiation, acquiring firms seem to disperse their income sources more evenly as they grow in size. For example, the percentages of domestic interest income on loans decrease from 67.58%

to 54.78% from quartile one to quartile four. In contrast, all other categories of income (except for interest and dividend income on securities) increase steadily from quartile one to four. Thus, as an acquirer expands and increases in value, the firm chooses to diversify its income stream and rely less on income from loans in domestic offices. There seems to be no substantial trend for expense proportions once the acquirers are separated by size. Salaries and benefits and expenses on premises and fixed assets remain relatively steady at around 27% and 7%, respectively.

Comparison among Targeted Institutions

As reported in *Table 3*, the largest contributor to income for all targets is interest income on loans in domestic offices, with an average percentage of 66.77% of total interest and noninterest income. Targets of serial acquirers hold an average of 64%, while targets of nonserial acquirers hold a higher average of 68.77%. The second largest income category is interest and dividend income on securities. This source holds an average across all available targets of 13.2%. Serial acquirer targets averaged 16.2%, compared to 11.03% for nonserial acquirer targets.

The remaining seven sources of income sum to about 9% of total interest and noninterest income. Shown in *Chart 2*, targets of serial and nonserial acquirers hold similar proportions for each of these categories (much like acquirers). The largest deviation between the two types of targets exists for service charges to depository balances, with a difference of about 1%. The other six sources of income each hold roughly 2% or less of total interest and noninterest income, regardless of serial or nonserial classification.

These results indicate a tendency to agree with Hypothesis One. That is, targets of serial acquirers are more diversified than targets of nonserial acquirers. Because targets of serial acquirers rely less on the primary source of income (interest on loans in domestic offices) than their nonserial counterparts, this analysis shows that, like the serial acquirers themselves, targets of serial acquirers prefer to spread out their income sources to remain competitive in the banking industry. Moreover, the serial acquirers choose these targets because they demonstrate a similar approach to business strategy. This potential matching of strategies is what potentially drives the acquirers to merge with firms from the onset.

Regarding the expense ratios, interesting characteristics exist between targets of serial and nonserial acquirers. Targets of serial acquirers report that salaries and benefits make up 25.12% of total interest and noninterest expense, while targets of nonserial acquirers report about 27.54%. Expense of premises and fixed assets shows a similarity between targets of serial and nonserial acquirers. On average, both types of targets incur expense of about 8%. On average, targets of serial and nonserial acquirers differ by only 0.5%.

Next, I examine different income ratios based *only* on the size of the target. Quartiles separate the targets based on the relative size of the firm (measured by deal value). As shown in *Table 4*, as firms increase in size, they generally decrease their reliance on interest income on depository balances, while increasing the proportions of income on most of the smaller categories defined. There is a generally decreasing trend for interest income on loans in domestic offices based on the size of the target. For example, targets in the first quartile derive 67.37% of income from this category, while targets in the fourth quartile gain about 65.01% of income from loans in domestic offices.

I do not find evidence of a clear relationship between target size and the proportions of various expenses. First, the share of expense related to salaries and benefits is approximately 26%, regardless of the size of the target. Second, the firms do not substantially change the percentage of expense on premises and fixed assets; this expense hovers around 8% across all quartiles. These consistent metrics indicate that, like the acquirers, these two expense ratios exhibit no apparent trend when linked to target size.

Third, I describe the different income characteristics of targets based on public or private status. In *Table 5*, I show that public targets rely more on interest income on loans in domestic offices, holding an average of 67.08% of total interest and noninterest income. This figure compares to that of their nonpublic counterparts, who hold an average of 66.5% for this category of income. Additionally, public targets generate a larger portion of income from interest and dividends on securities (15.26%) in contrast with private targets (13.36%).

Comparison between Acquiring and Targeted Institutions

Targets and acquirers indeed formulate different income structures as shown in *Table 6*. Most noticeably, acquirers tend to spread out their income streams, while targets tend to rely more on fewer types of income. That is, targets depend more heavily on the primary bank income, interest on loans from domestic offices. For example, targets on average derive 66.77% of their income from interest on loans in domestic offices, and derive 13.2% of their income from interest and dividends on securities. However, acquirers on average fund 61.77% and 17.64% of their income from these sources, respectively. Thus, even though these two income categories sum to about 80% for both targets and acquirers, targets will rely considerably more on the primary source of income because they are generally less diversified than acquirers.

Despite these differences in income structure, serial acquirers are more similar to their respective targets than nonserial acquirers. Conversely, nonserial acquirers are more similarly structured to the nonserial targets than to serial acquirers. A more direct comparison is depicted in *Table 6.* This analysis corresponds to the proposals in Hypothesis One. Specifically, serial acquirers (who are more diversified than nonserial acquirers) tend to merge with targets that are more diversified than targets of nonserial firms. In other words, acquirers prefer to merge with targets that share the same diversification strategy. This is based on the understanding that acquirers (especially serial acquirers) are already more diversified, and wish to diversify further by merging with targets that are more diversified. A synergy of matching strategies results because the acquirer can relate more easily to the similarly structured revenue approach of its target.

Upon examining the two expense proportions, both targets and acquirers allocate a similar portion of expense from salaries and benefits (only differing by about 1%) and expenses of premises and fixed assets (a difference of less than 0.5%). Much like the previous expense comparisons, this data does not indicate a definite difference in expense treatment between acquirers and targets. However, when comparing the salaries and benefits expense between serial and nonserial acquirers, there is a difference of about 2.24%. Additionally, the same expense varies by about 2.42% when comparing targets of serial and nonserial acquirers. In both instances, serial acquirers and targets of serial acquirers have a lower average salaries and benefits expense than their nonserial counterparts. This information indicates that, perhaps because of their similar revenue structures, the serial acquirers and targets of serial acquirers have similar expense structures as well.

Looking at other general income and efficiency ratios also allows another glimpse at the different income structures that exist between acquirers and targets. Of particular interest is the “Average Total Interest Income / Average Total Noninterest Income” ratio. This statistic equals about 6.21 for acquirers and 13.34 for targets. Thus, for every dollar earned as noninterest income, acquirers generate about $6.21 in interest income, and targets generate about $13. This indicates that targets rely twice as much on interest income as acquirers, and acquirers tend to balance out their income streams more than targets. This pattern is repeated when examining the size quartiles of targets and acquirers. As shown in *Table 7* and *Chart 3*, targets generate about 13.4 to 9 times as much interest income as noninterest income. In contrast, acquirers generate from about 8.5 to only 4 times as much interest income as noninterest income. Clearly, firms balance out their income streams as they grow, but targets still have substantially higher percentages of interest income than acquirers. This evidence indicates that acquirers generally do not seek out firms with a “healthy portfolio of noninterest income” or a large diversification of revenue streams. Rather, they pursue firms that, compared to the acquirers themselves, have much more reliance on the primary two types of income: interest from loans in domestic offices and interest and dividend income on securities. This directly agrees with the study by Beccalli and Frantz (2013) and Hypothesis Two, which both imply that acquirers pursue targets with a higher amount of specialization in loan interest income.

Another ratio of significant interest is the “Average Total Interest Income + Total Noninterest Income / Total Interest Expense + Noninterest Expense” ratio. This measure calculates how much revenue versus expense that a bank generates. For this ratio, acquirers equal 1.33, but targets only equal 1.27. In other words acquirers tend to earn more income per dollar of expense than targets, indicating another difference in income structure. These characteristics seem to agree with the ideas of Hernando, Nieto, and Wall (2009), as well as Hypothesis Three. That is, acquirers try to target less efficient firms. Thus, by seeking these types of institutions, the acquirers ensure the potential to gain from performance improvements when merging with the target.

Serial and nonserial acquirers are targeting different types of firms that attain certain income characteristics. For example, serial acquirers, like their corresponding targets, tend to rely less on interest income from loans in domestic offices than nonserial acquirers and targets of nonserial acquirers. Serial acquirers and targets of serial acquirers also derive a higher percentage of income from interest and dividends on securities than nonserial counterparts. In other words, serial acquirers and targets of serial acquirers have more diversified income sources. In this respect, targets of serial acquirers are more similar in revenue structure to their serial acquirer, as are the targets of nonserial acquirers to theirs.

Conclusions

As a result of legislation that relaxed restrictions on banking acquisitions, bank holding companies reactively increased merger activity to high levels in the years 1990 to

2007. This research examined 1,382 acquisitions that occurred during this period to analyze the income characteristics and distinctions among these acquirers and their targets.

Results from this analysis indicate that income structure differences do exist among different types of acquirers based on size quartiles as well as serial or nonserial classification. That is, serial and nonserial firms structure their revenue streams slightly differently, particularly with the two primary sources: interest income on loans in domestic offices and interest and dividend income on securities. Among different sizes of acquirers, analysis shows that higher value acquirers tend to diversify their income sources. Much like the acquirers, larger targets also tended to diversify income sources, and substantial differences existed between the targets of serial and nonserial acquirers, between public and private targets, as well as between different sizes of targets when examining primary income and expense proportions.

An analysis comparing targets to acquirers showed that acquirers derive much more income from noninterest sources than targets, and generally rely less on the two primary sources of income than targets. Although only slightly, targets also have a less favorable income/expense ratio than acquirers, indicating that acquirers target firms that are not only less efficient than acquirers, but also have less variation in revenue sources than acquirers.

Despite the income differences associated with these banking entities, other factors may contribute to the defining characteristics of acquirers and targets. Balance sheet information such as asset ratios could be examined in additional research, as well as leverage and liquidity ratios, among others. This information would provide a more well-rounded analysis of these banking institutions and offer additional clarity to the topic.

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Appendix

Interest Income Numerator Ratios

$$\frac{Interest\ and\ fee\ income\ on\ loans\ in\ domestic\ offices}{Total\ interest\ income + Total\ noninterest\ income}$$

$$\frac{Interest\ and\ fee\ income\ on\ loans\ in\ foreign\ offices}{Total\ interest\ income + Total\ noninterest\ income}$$

$$\frac{Interest\ income\ from\ trading\ assets}{Total\ interest\ income + Total\ noninterest\ income}$$

$$\frac{Income\ from\ lease\ financing\ receivables}{Total\ interest\ income + Total\ noninterest\ income}$$

$$\frac{Interest\ income\ on\ balances\ due\ from\ depository\ institutions}{Total\ interest\ income + Total\ noninterest\ income}$$

$$\frac{Interest\ and\ dividend\ income\ on\ securities}{Total\ interest\ income + Total\ noninterest\ income}$$

$$\frac{Interest\ income\ on\ federal\ funds\ sold\ and\ securities\ purchased\ under\ agreements\ to\ resell}{Total\ interest\ income + Total\ noninterest\ income}$$

Noninterest Income Numerator Ratios

$$\frac{Income\ from\ fiduciary\ activities}{Total\ interest\ income + Total\ noninterest\ income}$$

$$\frac{Service\ charges\ on\ deposit\ accounts\ in\ domestic\ offices}{Total\ interest\ income + Total\ noninterest\ income}$$

Expense Ratios

$$\frac{Salaries\ and\ employee\ benefits}{Total\ interest\ expense + Total\ noninterest\ expense}$$

$$\frac{Expenses\ of\ premises\ and\ fixed\ assets, net\ of\ rental\ income}{Total\ interest\ expense + Total\ noninterest\ expense}$$

General Income and Efficiency Ratios

$$\frac{Total\ interest\ income + Total\ noninterest\ income}{Total\ interest\ expense + Total\ noninterest\ expense}$$

$$\frac{Average\ total\ interest\ income}{Average\ total\ noninterest\ income}$$

Tables and Charts

***Table 1.* Income Proportions for Acquirers**

The various income and expense ratios are depicted below. The "Acquirers" column reports the mean for a particular ratio for all acquirers. The "Serial" and "Nonserial" columns report the mean of a particular ratio for all serial acquirers and all nonserial acquirers, respectively.

Interest Income Numerators:	**Acquirers**	**Serial**	**Nonserial**
Interest Income on Loans: Domestic	0.6177	0.6050	0.6260
Interest Income on Loans: Foreign	0.0048	0.0025	0.0064
Interest Income on Trading Assets	0.0029	0.0031	0.0027
Income on Lease Financing Receivables	0.0086	0.0102	0.0076
Interest Income on Depository Balances	0.0041	0.0041	0.0041
Interest and Dividend Income on Securities	0.1764	0.1907	0.1672
Interest Income on Federal Funds Sold and Securities Purchased	0.0108	0.0114	0.0103
Noninterest Income Numerators:			
Income from Fiduciary Activities	0.0263	0.0270	0.0258
Service Charges on Depository Accounts	0.0518	0.0526	0.0513
Expense Ratios			
Salaries and Benefits	0.2737	0.2601	0.2825
Expense of Premises and Fixed assets	0.0778	0.0752	0.0795

***Chart 1.* Income Percentages for Smaller Categories: Serial versus Nonserial Acquirers**

Depicted below are the means of various income ratios for serial and nonserial acquirers to show comparison. The two largest contributors of income, interest on domestic loans and interest and dividend income on securities are excluded from this chart to show detailed analysis of the remaining smaller income categories.

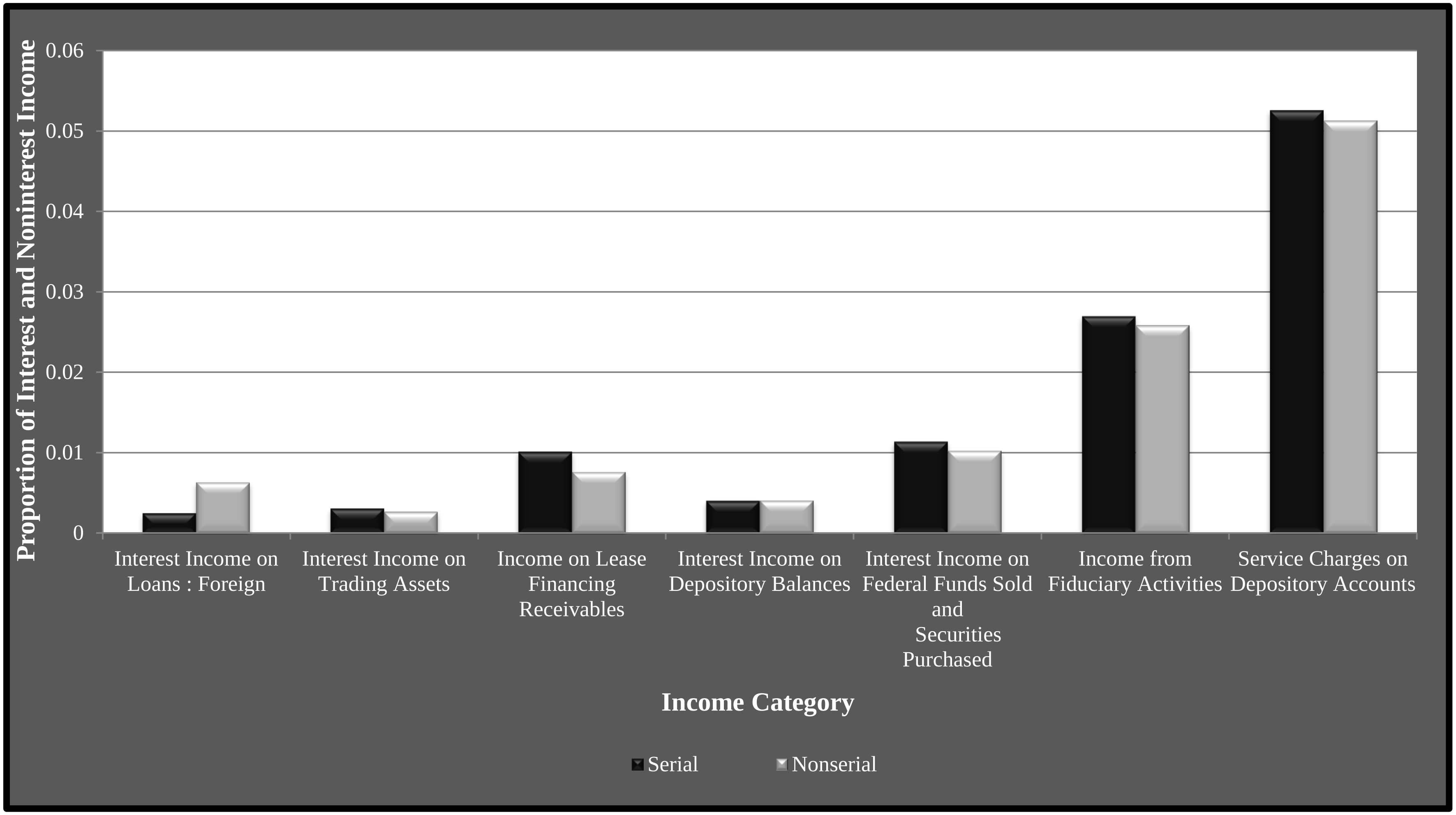

Table 2. **Income Ratios for Acquirer Quartiles**

Depicted below are the means of the various ratios for all acquirers. Quartiles are based on market capitalization of the firms. Market capitalization is the total number of shares outstanding multiplied by the share price.

Interest Income Numerators:	**Quartile 1**	**Quartile 2**	**Quartile 3**	**Quartile 4**
Interest Income on Loans :Domestic	0.6758	0.6354	0.6122	0.5478
Interest Income on Loans : Foreign	0.0000	0.0000	0.0011	0.0163
Interest Income on Trading Assets	0.0002	0.0009	0.0019	0.0083
Income on Lease Financing Receivables	0.0035	0.0047	0.0081	0.0182
Interest Income on Depository Balances	0.0037	0.0033	0.0024	0.0071
Interest and Dividend Income on Securities	0.1759	0.1902	0.1931	0.1464
Interest Income on Federal Funds Sold and Securities Purchased	0.0120	0.0102	0.0082	0.0126
Noninterest Income Numerators:				
Income from Fiduciary Activities	0.0112	0.0248	0.0283	0.0410
Service Charges on Depository Accounts	0.0480	0.0517	0.0545	0.0529
Expense Ratios				
Salaries and Benefits	0.2728	0.2765	0.2739	0.2715
Expense of Premises and Fixed Assets	0.0788	0.0781	0.0774	0.0771
General Income and Efficiency Ratios				
Average (Total Interest Income + Total Noninterest Income)/(Total Interest + Noninterest Expense)	1.2803	1.3045	1.3465	1.3695
Average Total Interest Income/ Total Noninterest Income	8.5341	6.7042	5.5893	4.0177

***Table 3*. Income Ratios for Targets**

Depicted below are the means of various ratios for targets. The "Serial" and "Nonserial" columns report information for targets acquired by serial and nonserial acquirers, respectively.

Interest Income Numerators:	**Targets**	**Serial**	**Nonserial**
Interest Income on Loans: Domestic	0.6677	0.6400	0.6877
Interest Income on Loans: Foreign	0.0017	0.0021	0.0013
Interest Income on Trading Assets	0.0004	0.0004	0.0004
Income on Lease Financing Receivables	0.0031	0.0030	0.0032
Interest Income on Depository Balances	0.0055	0.0063	0.0049
Interest and Dividend Income on Securities	0.1320	0.1620	0.1103
Interest Income on Federal Funds Sold and Securities Purchased	0.0229	0.0235	0.0224
Noninterest Income Numerators:			
Income from Fiduciary Activities	0.0111	0.0100	0.0118
Service charges on Depository Accounts	0.0495	0.0539	0.0463
Expense Ratios			
Salaries and Benefits	0.2653	0.2512	0.2754
Expense of Premises and Fixed Assets	0.0802	0.0770	0.0824
General Income and Efficiency Ratios			
Average (Total Interest Income + Total Noninterest Income)/(Tot Interest + Noninterest Expense)	1.2694	1.2669	1.2713
Average Total Interest Income/ Total Noninterest Income	13.3441	11.0699	14.9785

Chart 2. **Income Percentages for Smaller Categories: Serial versus Nonserial Targets**

Depicted below are the means of various income ratios for targets of serial and nonserial acquirers. The two largest contributors of income, interest on domestic loans and interest and dividend income on securities are excluded from this chart to show detailed analysis of the remaining smaller income categories.

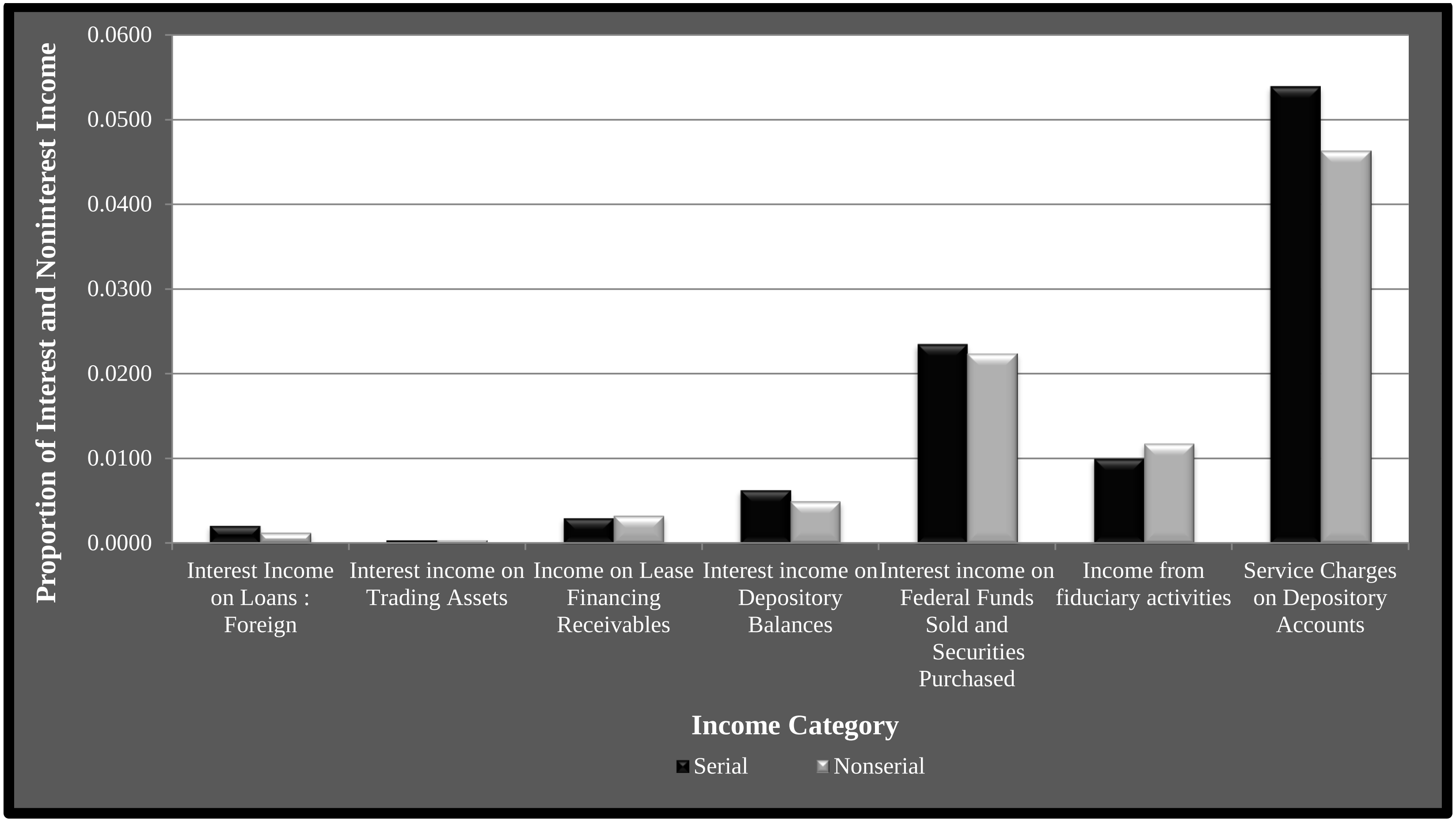

***Table 4.* Income Ratios for Target Quartiles**

Depicted below are the means of the various ratios for all targets. Quartiles are based on the deal value of the acquisition.

Interest Income Numerators:	**Quartile 1**	**Quartile 2**	**Quartile 3**	**Quartile 4**
Interest Income on Loans: Domestic	0.6737	0.6817	0.6649	0.6501
Interest Income on Loans: Foreign	0.0000	0.0018	0.0058	0.0028
Interest Income on Trading Assets	0.0003	0.0001	0.0001	0.0012
Income on Lease Financing Receivables	0.0020	0.0029	0.0023	0.0056
Interest Income on Depository Balances	0.0069	0.0057	0.0063	0.0029
Interest and Dividend Income on Securities	0.0502	0.1207	0.1727	0.1778
Interest Income on Federal Funds Sold and Securities Purchased	0.0305	0.0278	0.0207	0.0126
Noninterest Income Numerators:				
Income from Fiduciary Activities	0.0015	0.0065	0.1084	0.0188
Service Charges on Depository Accounts	0.0554	0.0473	0.0486	0.0469
Expense Ratios				
Salaries and Benefits	0.2652	0.2697	0.2687	0.2563
Expense of Premises and Fixed Assets	0.0867	0.0769	0.0792	0.0781
General Income and Efficiency Ratios				
Average (Total Interest Income + Total Noninterest Income)/(Total Interest + Noninterest Expense)	1.1872	1.2809	1.2931	1.3122
Average Total Interest Income/ Total Noninterest Income	13.4001	14.0103	15.9341	9.4319

***Table 5.* Income Ratios for Public versus Private Targets**

Depicted below are the means of various ratios for all public and nonpublic targets.

Interest Income Numerators:	**Public**	**Private**
Interest Income on Loans: Domestic	0.6708	0.6650
Interest Income on Loans: Foreign	0.0014	0.0024
Interest Income on Trading Assets	0.0003	0.0005
Income on Lease Financing Receivables	0.0047	0.0018
Interest Income on Depository Balances	0.0049	0.0060
Interest and Dividend Income on Securities	0.1526	0.1336
Interest Income on Federal Funds Sold and Securities Purchased	0.0177	0.0275
Noninterest Income Numerators:		
Income from Fiduciary Activities	0.0145	0.0071
Service Charges on Depository Accounts	0.0435	0.0548
Expense Ratios		
Salaries and Benefits	0.2617	0.2685
Expense of Premises and Fixed Assets	0.0796	0.0807
General Income and Efficiency Ratios		
Average (Total Interest Income + Total Noninterest Income)/(Total Interest + Noninterest Expense)	1.2739	1.2655
Average Total Interest Income/ Total Noninterest Income	13.4996	13.2060

Table 6. **Comparison of Average Acquirers and Targets**

Depicted below are the means of various ratios. The second and third columns contain the means of ratios for all acquirers and targets. The fourth and fifth columns contain the means of ratios for serial and nonserial acquirers. The sixth and seventh columns contain the means of ratios for targets of serial and nonserial acquirers. This table combines information from *Table 1* and *Table 3* for ease of comparison.

			Acquirers		**Targets**	
Interest Income Numerators:	**Acquirers**	**Targets**	**Serial**	**Nonserial**	**Serial**	**Nonserial**
Interest Income on Loans :Domestic	0.6177	0.6677	0.6050	0.6260	0.6400	0.6877
Interest Income on Loans : Foreign	0.0048	0.0017	0.0025	0.0064	0.0021	0.0013
Interest Income on Trading Assets	0.0029	0.0004	0.0031	0.0027	0.0004	0.0004
Income on Lease Financing Receivables	0.0086	0.0031	0.0102	0.0076	0.0030	0.0032
Interest Income on Depository Balances	0.0041	0.0055	0.0041	0.0041	0.0063	0.0049
Interest and Dividend Income on Securities	0.1764	0.1320	0.1907	0.1672	0.1620	0.1103
Interest Income on Federal Funds Sold and Securities Purchased	0.0108	0.0229	0.0114	0.0103	0.0235	0.0224
Noninterest Income Numerators:						
Income from Fiduciary Activities	0.0263	0.0111	0.0270	0.0258	0.0100	0.0118
Service Charges on Depository Accounts	0.0518	0.0495	0.0526	0.0513	0.0539	0.4632
Expense Ratios						
Salaries and Benefits	0.2737	0.2653	0.2601	0.2825	0.2512	0.2754
Expense of Premises and Fixed Assets	0.0778	0.0802	0.0752	0.0795	0.0770	0.0824
General Income and Efficiency Ratios						
Average (Total Interest Income + Total Noninterest Income)/(Total Interest + Noninterest Expense)	1.3252	1.2694	1.2994	1.3420	1.2669	1.2713
Average Total Interest Income/ Total Noninterest Income	6.2093	13.3441	5.6370	6.5797	11.0699	14.9785

Table 7. Total Interest Income / Total Noninterest Income: Acquirers versus Targets

Depicted below are the means of the Total Interest Income/Total Noninterest Income ratio for all acquirers and targets. This table combines information from *Table 2* and *Table 4* for ease of comparison.

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Acquirers	8.5341	6.7042	5.5893	4.0177
Targets	13.4001	14.0103	15.9341	9.4319

Chart 3. **Total Interest Income / Total Noninterest Income: Acquirers versus Targets**

Depicted below are the means of the Total Interest Income/Total Noninterest Income ratio for all acquirers and targets. This chart uses data from *Table 7*.