

# Equipment Lease Financing: The Role of Community Banks

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## ABSTRACT

Community banks have become a smaller part of the U.S. financial system over the past three decades. Over the same time period, community banks have become less profitable when compared to other banks and have experienced declining market shares in traditional lending and deposit gathering activities. In this context, concerns over their future viability have spurred the investigation of likely growth opportunities for community banks. For example, given the strong geographic presence of community banks in rural areas, it is suggested that if the community banking model is to remain viable, it is likely to be in rural markets. This paper considers equipment lease financing which is a relatively small proportion of community banking transactions as another avenue of strategic focus for these financial institutions. A motivating factor for this focus is the increased standardization of equipment leasing transactions that has resulted from regulatory, tax and accounting developments since 1975. Another compelling consideration is that the attributes of relatively successful community banks such as prudent underwriting, superior risk control standards, and strong local relationships are foundational to successful performance within the equipment leasing sector. Our examination of community banking data from 1992 to 2012 reveals that community banks involved in equipment lease financing performed better than the community banks that had no involvement in equipment leasing. Community banks that had a primary lending focus in certain areas such as agriculture and commercial and industrial activities had a greater propensity to participate in equipment lease financing and the distribution of community bank involvement in equipment lease financing showed a relatively constant rate of participation over a range of asset sizes, but there was some degree of concentration in the largest (over one billion dollars) category of community bank size.

## I. INTRODUCTION

According to a recent study of community banks<sup>1</sup> by the Federal Deposit Insurance Corporation (FDIC), these financial institutions tend to conduct lending and deposit gathering activities within a fairly limited market area. Because they rely to a significant degree on specialized knowledge gained through long-term business relationships, they are known to be relationship lenders. They are also likely to be owned privately or have public shares that are not widely traded, and tend to emphasize the long-term interest of their local communities (FDIC, 2012).

As the U.S. banking system has consolidated in recent decades, the shares of total banking system assets and deposits held by community banks have declined. According to the 2012 FDIC Community Banking Study (FDIC, 2012), between 1984 and 2011, the share of U.S. banking assets held by community banks declined from 38 % to 14 %. The number of commercial banks reached its post-World War II peak of 14,483 banks in 1984, but by year-end 2012, the number of commercial banks had declined to 6,096.

Combined with declines in net interest margins and return on assets, the viability of the community bank business model has received increased scrutiny (Gilbert and Wheelock, 2013).

Despite the challenges facing community banks, they continue to play a unique and important role in the U.S. economy. Community banks provided 46 percent of small loans to farms and businesses, 16.1 percent of residential mortgage lending, 65.8 percent of farm lending, and 34.5 percent of commercial real estate loans, while accounting for 19.4 percent of all retail deposits at U.S. banks as of 2011 (FDIC, 2012). In 2011 community banks also made up 92 percent of FDIC-insured banks and 95 percent of U.S. banking organizations. At the same time community banks hold the majority of banking deposits in U.S. rural counties, and that there are more than 600 counties—or almost one out of every five U.S. counties—that have no other physical banking offices except those operated by community banks (FDIC, 2012). Data on the shares of rural county bank deposits held by banking organizations of different sizes indicate that, on the whole, large banks have not driven small banks from rural banking markets. Recent sales of rural-market branches by large banking organizations to smaller banks suggest that large banks may find rural markets less profitable than do small banks. However, as Hannon and Prager (2009) illustrate, depending on factors such as market concentration and bank size, small single market community banks can have their profitability affected by the presence of large or primarily-out-of-market banking organizations in rural markets.

Empirical evidence indicates that community banks lend disproportionately to small businesses while non-community banks lend mainly to larger firms with good accounting information and households on the basis of credit ratings and other reliable quantitative information (Berger et al., 2005). Further, research finds that community banks rely more heavily on developing customer relationships and investing in other forms of qualitative information and account for larger shares of banking business in smaller urban and rural markets than in large urban markets. Petersen and Rajan (1994) examine the impact of customer relationships on the cost and availability of credit for small businesses. The study finds that firms pay higher interest rates when they have more than one lender, suggesting that a relationship with a single bank lowers a firm's borrowing costs. In addition, a firm will have a greater supply of credit from a bank the longer the firm's relationship with the bank, the more distinct services it receives from the bank, and the more concentrated its borrowing with the bank.

Technological advances and associated developments in data analytics such as increased use of credit scoring and other forms of information technology to obtain hard information about borrowers, have somewhat diminished the comparative lending advantage of community banks; particularly lending to small businesses has diminished (Petersen and Rajan, 2002; Berger, 2003; Bernanke, 2006). However, qualitative information obtained through personal contacts and customer relationships may remain important, especially for lending to borrowers lacking established credit histories and audited financial reports (Stein, 2002; Brickley, Linck, and Smith, 2003).

Despite public policies and technological advances that appear to favor large banks with extensive geographic presence, some community banks continue to thrive, even in challenging times such as the recent financial crisis and recession (Gilbert, Meyer, and Fuchs, 2013). Further, some studies conclude that the community bank business model, with its focus on lending to small businesses and consumers on the basis of “soft” information derived from customer relationships and community ties remains viable for well-managed banks (see, e.g., DeYoung, Hunter, and Udell, 2004).

There are evident reasons, however, to question whether the evolving structure of the U.S. banking system will retain a place for community banks over the long run. Gilbert and Wheelock (2013) contend that if the community banking model is to remain viable, it is likely to be in rural markets with a relatively high percentage of informationally opaque borrowers and relatively low costs of acquiring qualitative information about potential borrowers. This article considers equipment lease financing as another strategic option for community banks. A motivating factor for this focus is the increased standardization of equipment leasing transactions that has resulted from regulatory, tax and accounting developments since 1975. Another compelling consideration is that the attributes of relatively successful community banks such as prudent underwriting, superior risk control standards, and strong local relationships are foundational to successful performance within the equipment leasing sector. Also, the relatively important role of small business loans in the portfolio of community banks, the utilization of equipment leasing by a relatively large number of small businesses, and manageable complexity associated with equipment lease financing make this a worthwhile option for community banks to consider.

In particular, this article examines the role of equipment lease financing in community banking over the 1992-2012 period. We investigate the following questions: (1) Are there systematic relationships between the type of community bank specialization and involvement in lease financing? (2) Are there distinguishing attributes between community banks with leasing activities and other community banks? (3) How many community banks are engaged in lease financing and are they concentrated in a particular asset size range or specialized activity? (4) How does the performance of community banks engaged in lease financing compare to the performance of community banks that do not engage in lease financing?

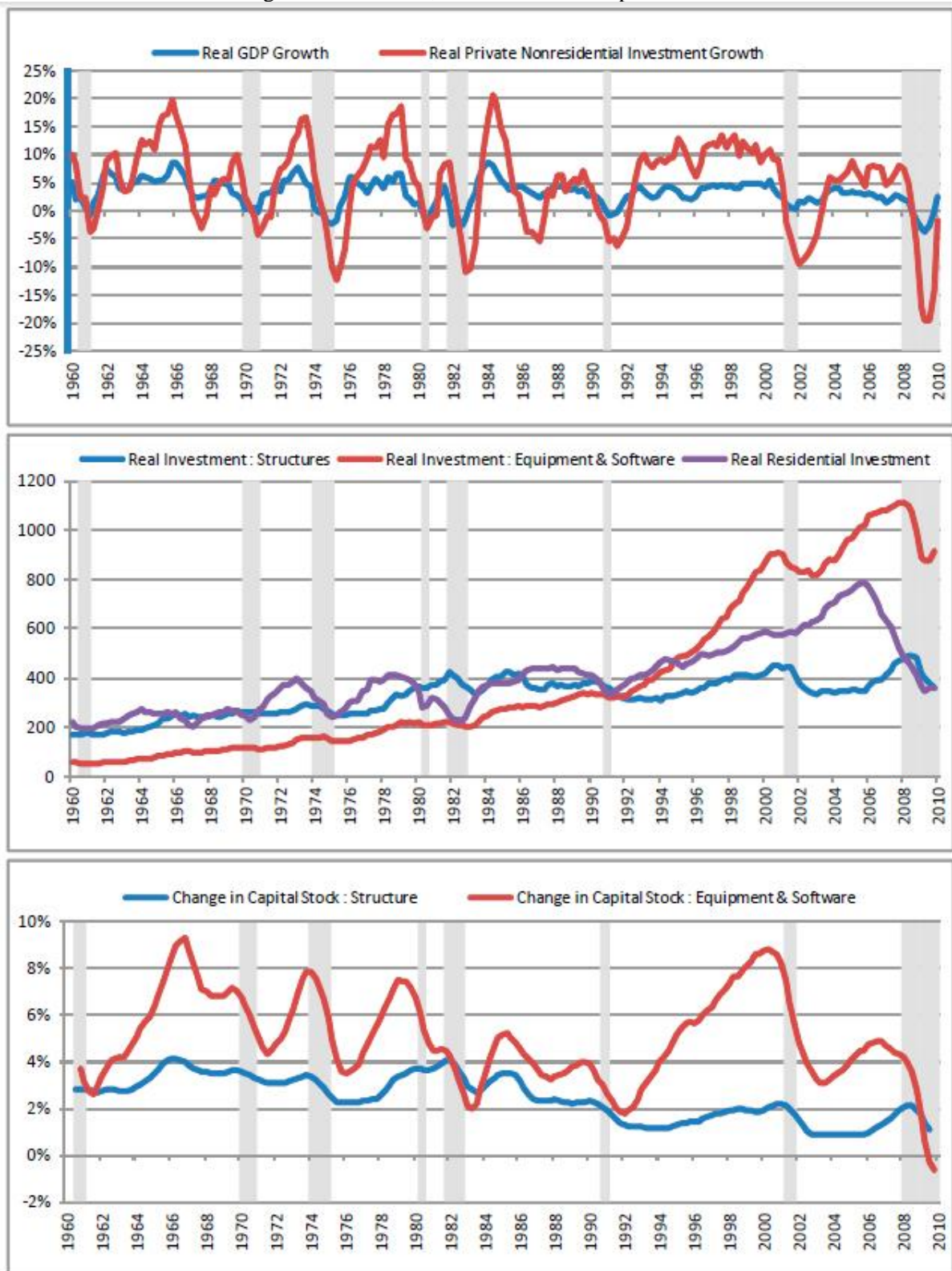
The findings related to these questions provide the basis for assessing the extent to which equipment lease financing represents a viable strategic area for community banks in the future.

The rest of this paper is organized as follows. Section II provides a discussion of equipment lease financing by community banks across their primary specialization, Section III discusses the data and variables utilized, Section IV outlines the empirical findings, and Section V concludes.

## II. EQUIPMENT LEASING AND FINANCING

In the recent recession the decline in investment has been particularly sharp—the year-on-year growth rate of investment fell to minus 20 percent in 2009, the largest decline in investment growth in all recessions since the 1960s. Investment in equipment and software (E&S), which is the primary component of non-residential business fixed investment is highly volatile and tends to behave procyclically (Figure 1, top panel).

Figure 1. Real GDP, Investment and Capital Stock



Source: Lee and Rabanal, 2010

The collapse of E&S investment during the recent recession led the E&S capital stock to decline for the very first time since the 1950s, while the capital stock in non-residential structures kept growing, albeit at a slower rate than usual (Figure 1, bottom panel). The overall investment in equipment by businesses drives the leasing industry. Equipment and software investment will likely determine the future trajectory of business fixed investment and consequently the behavior of equipment lease financing activity.

While businesses face a myriad of financing options, within the total financing market, according to the Equipment Leasing and Finance Foundation (ELFF), leasing has become an increasingly popular choice for several reasons, including convenience and flexibility, increased cash flow, tax benefits, and opportunity to transfer the cost of upgrading equipment to the lessor.

In the past three decades leasing activities have gained more prominence within banks due to their organizational impact on growth and earnings. Growth rates for banks are well above the industry average, and, for most banks, funding is not an issue. Deposits held in customer accounts make access to capital for the leasing subsidiary secure and cost-effective. If debt or equity funding is necessary, the bank lessor can rely on the financial strength of its parent to obtain favorable rates. On average, leasing subsidiaries have stronger profitability measures than more traditional lending business lines. As a result, banks continue directing capital to their leasing operations to support growth strategies (ELFF, 2012).

Performance indicators in the equipment leasing industry such as return on equity, return on assets and net income as a percentage of total revenue have rebounded since the recent recession. In an industry survey of market participants it was found that ROE increased from a low of 5.2 % in 2009 to 15.5% in 2011. In the same period ROA increased from 0.6% to 2.0% and net income before tax as percentage of total revenue increased from 8.3% to 35.0%. Credit quality also improved with charge offs - which had peaked in 2009 at 1.6% - declining to 0.4% in 2011; this is consistent with the observation that banks moved their financing volume to commercial borrowers with lower risk profiles over the period 2006 to 2011. This change in bank risk profiles during the 2008 recession is consistent with the observation that banks which thrived during this period were those that maintained conservative lending approaches (Gilbert, Meyer, and Fuchs, 2013). Undoubtedly, the 2011 results for these performance indicators represent a marked improvement over the 2009 results. Even more remarkable is the fact that, for all four categories, the 2011 results were an improvement over the 2007 pre-recession results. (ELFF, 2012)

The Equipment Leasing and Finance Foundation survey also reported that banks, reflecting their historic status as the largest equipment lender by volume, led the way out of the recession with a 19.3% increase in volume in 2011. The average increase in volume for the industry was 16.5%. Banks have become the primary lenders for all equipment types as well (ELFF, 2012). Driving bank lessor success, in part, is a low direct-cost structure, existing customer relationships, and lower funding costs than other lessor types.

Growth and profitability in the leasing industry vary both by type of lessor and by ticket segment. From a ticket-segment-growth perspective, the large ticket segment dominated in both the late 1990s and 2000s. Both the micro and large-ticket segments outperform the small- and middle-market segments in ROE and ROA ratios. Interestingly, the middle-market segment captures 44% of all new leasing volume but generates the lowest average ROA, ROE, and pretax revenue. (ELFF, 2012) A critical element of the environment for lease financing is the state of capital equipment assets in the United States. Table 1

shows the current cost average age of nine categories of fixed assets, equipment and software for the years 2004-2011. For seven out of the nine categories the average age has increased, indicating a deterioration of the capital asset stock and a potential need for equipment acquisitions. Many of these categories such as computers, office equipment, transportation assets, communications equipment and furniture and fixtures are relevant to the small business and commercial and industrial clients of community banks.

	2004	2005	2006	2007	2008	2009	2010	2011
Computers and peripheral equipment	1.9	1.9	1.6	1.4	1.2	2	2.1	2.1
Medical equipment and instruments	4.2	4.2	4.2	4.2	4.2	4.3	4.4	4.5
Communication equipment	5.3	5.5	5.5	5.5	5.6	5.8	5.9	6.1
Office and accounting equipment	2.2	2.2	2.2	2.7	2.9	3.2	3.6	3.8
Transportation equipment	7	7	7	7	7.4	7.9	8.2	8
Aircraft	8.9	9.1	9.5	9.6	9.6	10	10.3	10.5
Agricultural machinery	7.4	7.1	7	7	6.8	6.8	6.7	6.6
Construction machinery	5.3	5.1	4.8	4.7	4.8	5.1	5.2	5.1
Furniture and fixtures	6.1	6.2	6.2	6.3	6.5	6.8	7.2	7.4

Sources: Equipment Leasing and Finance Foundation, Bureau of Economic Analysis

### Equipment Leasing and the Economy

A number of developments in the economy have had favorable impacts on the equipment leasing market. Business equipment investment is an important component of aggregate investment in the U.S. economy. Table 2 shows the changing composition over time. Since 1960 private fixed investment in equipment increased from \$29.7 billion to almost \$1 trillion in 2012. Equipment leasing is estimated to account for over 50 percent of annual equipment investment and has considerable impact on the economy in terms of real GDP, real equipment investment, employment and acquisition decisions (Fleming, 2004). While equipment lease financing represents a relatively small proportion of banking activity, especially in the case of community banks, the local focus of commercial and industrial loans combined with the underwriting and risk management practices associated with highly successful community banks suggest that this may be an attractive financing activity for consideration by more community banks. Recent activity of community bank involvement in equipment leasing provides some indication of movement in this direction.<sup>2</sup>

Table 2: Private Fixed Investment Information Processing Equipment and Industrial Equipment 1960-2012 [Billions of Dollars]					
		Information Processing		Industrial	
<u>Year</u>	<u>Total</u>	<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>
1960	29.7	4.7	15.8%	9.4	31.6%
1965	45.8	7.8	17.0%	13.7	29.9%
1970	66.4	14.3	21.5%	20.3	30.6%
1975	107.6	23.8	22.1%	31.3	29.1%
1980	216.4	58.9	27.2%	60.7	28.0%
1985	307.9	106.6	34.6%	72.5	23.5%
1990	371.9	129.6	34.8%	92.1	24.8%
1995	528.1	188.4	35.7%	129.0	24.4%
2000	766.1	293.8	38.4%	162.9	21.3%
2005	790.7	262.8	33.2%	162.4	20.5%
2010	731.8	276.7	37.8%	152.9	20.9%
2012	907.6	284.5	31.3%	195.3	21.5%
Source: Bureau of Economic Analysis, Table 5.5.5					

As Table 3 shows, of the approximately \$1.3 trillion in projected investment in plant, equipment and software for 2013, the Equipment Leasing and Finance Foundation estimates that 55 percent will be financed through some version of the equipment financing product (ELFF, 2012). Equipment financing is provided by commercial banks of all sizes and 70 percent of companies in all industries report using this avenue in their business operations (ELFF, 2012). Between 2007 and 2012, there was an increase in relatively small ticket size leases and in leasing by small firms. The percent of equipment investment financed by leasing increased from 17 percent to 22 percent. Firms with up to 100 employees increased their share of equipment investment financed by leasing from 37 percent in 2007 to 46 percent in 2012. Firms with less than 50 employees accounted for most of this increase as their share grew from 6 percent in 2007 to 13 percent in 2012. The percent of equipment investment financed by leasing with a purchase price under \$25,000 increased from 11 to 16 between 2007 and 2012. During the same time period the corresponding percentages for a purchase price between \$25,000 and \$249,000 increased from 26 to 30.

Year	Business Investment in Equipment	Equipment Leasing Volume	Market Penetration Rate
2006	\$1,168.0	\$656.0	56.2%
2007	\$1,217.0	\$716.0	58.8%
2008	\$1,182.0	\$707.0	59.8%
2009	\$1,004.0	\$454.0	45.2%
2010	\$1,078.0	\$591.0	54.8%
2011	\$1,191.0	\$664.0	55.8%
2012	\$1,280.0	\$725.0	56.6%
2013*	\$1,349.0	\$742.0	55.0%
2014*	\$1,438.0	\$778.0	54.1%
2015*	\$1,551.0	\$816.0	52.6%
* Forecast			

Source: Equipment Leasing and Finance Foundation and Bureau of Economic Analysis

A further examination of the Table 2 data indicates that the economic activity in to 1960-2012 period has been characterized by a decrease in the relative proportion of “hard” assets being acquired (i.e., industrial equipment) which decreased from 31.6% of total investment to 21.5%. At the same time investment in information processing equipment increased from 15.8% of the total in 1960 to 31.3% in 2012 with a high of almost 40% in 2009. The information processing assets themselves had relatively large ticket sizes in the early years due to the fact that most of the assets were mainframe computer systems. In recent years there has been more relative growth in investment in small computers including PCs. The increase in relative volume of the information processing assets being acquired is consistent with the relative growth in small ticket leasing observed by the Equipment Leasing and Finance Foundation. Leasing of these small ticket information processing assets has a number of features: little to no need to rely on residual values, a heightened emphasis on credit underwriting due to relatively low collateral values, and the universality of the need for these assets throughout the small business client base, all of which favor community banks.

The importance of equipment leasing to the U.S. Economy has resulted in a significant link of leasing activity to economic growth. As Table 3 illustrates, during the period 2006-2012 business investment in equipment increased slightly from \$1.16 trillion to \$1.28 trillion in 2012. During the same period, equipment leasing increased from \$656 to 725.0 billion. The percentage of total investment represented by leasing ranged from 45.2% to 59.8% with the lowest percentage in 2009. Since this time period included periods of growth, recession and recovery, the fact that leasing represented an almost constant percentage of investment in equipment is instructive.

### **The Environment of Equipment Leasing and Bank Involvement**

The leasing of equipment where one party (the lessor) owns equipment and leases it to another party (the lessee) is an important channel for business to acquire equipment used in production processes across all sectors of an economy. Equipment finance not only contributes to businesses’ success, but to economic and job growth. Seventy-two percent of U.S. companies use some form of financing when acquiring



equipment, including loans, leases and lines of credit (excluding credit cards). The evolution of equipment leasing has been characterized by a number of developments all of which have shaped the risk elements of leasing in a manner that is compatible with many aspects of banking, including relationship management as well as traditional bank credit underwriting processes and standards.

Over the past three decades there has been a noticeable increase in the participation of commercial banks in equipment lease financing. Bank involvement has expanded with the evolution of long-term lease transactions, which are the functional equivalent of loans. Short term rental contracts - in which a lessor must find a number of lessees to rent equipment over its useful life - are still common especially in the area of automobile rentals. However the greatest part of the growth of equipment leasing has involved fixed rate term financing of essential assets for a substantial portion of their useful lives.

As an illustration of the extent of bank participation in leasing, the commercial banking share of equipment financing volume increased from 47% of total equipment finance volume in 2006 to 57% in 2011 (ELFF, 2012). Although the volume of investment in equipment as well as leasing declined during the recent recession, leasing by banks increased by 19.3% during the 2010-2011 time period. A number of regulatory, income tax and accounting developments contributed to the increased participation in equipment leasing by banks as will be discussed below.

**Banking Regulation** In the area of banking regulation, guidance issued in the 1970's required that banks and their subsidiaries only enter into leases that are considered "net" or "full payout" leases. These regulations had the effect of ensuring that the risk of leasing was generally of a financial, credit related character (as opposed to an equipment-dependent activity). In particular, relative to bank holding companies and their subsidiaries, important sections of Federal Reserve Regulation Y, set forth criteria in which bank lessors could enter into lease transactions confident that they were "permissible nonbanking activities" within the meaning of Sec. 225.28 of the Regulation. Leases were permitted if they were structured on a "nonoperating basis", meaning that, among other things, "...the bank holding company [or its non-bank subsidiary] may not, directly or indirectly, engage in operating, servicing, maintaining, or repairing leased property during the lease term". Other provisions set limits on lease term and residual values. A corresponding body of regulations applying to national banks was issued in 1977 (12 USC 24) and in a 1979 Office of the Comptroller of the Currency Interpretive Ruling 7.3400. These regulatory guidelines have proven to be generally clear and for the most part easy to follow. They have led to orderly growth of this product, producing standard structures that form the basis of most bank and non-bank lease portfolios.

This standardization – which was a direct result of the regulatory requirements - has meant that commercial bank leasing is a credit-driven product that is highly compatible with other commercial banking activities. These regulations and their attendant standardizing of the structural aspects of the leasing product, have facilitated secondary market transfers of lease assets between banks and from banks to non-banks and vice versa, thus making equipment leases substantially more liquid than they otherwise would be. Indeed, entire portfolios of equipment leases are routinely bought and sold, thus enabling banks (and non-banks) to enter and exit the marketplace (or bring about rapid balance sheet growth through acquiring entire portfolios of leases) in a manner that would have been much more restricted in the absence of such standardization.

**Federal Income Tax Requirements** The U.S. Treasury issued Revenue Procedure 75-21<sup>3</sup> in 1975 which provided guidelines to lessors seeking a “safe harbor” to ensure that properly structured leases would be considered “true leases” for federal income tax purposes. These standards included a maximum lease term (80% of the useful life of the equipment), a prohibition of bargain purchase options, and profit and cash flow requirements. These guidelines apply to all lessors seeking to be treated as such for tax purposes. This guidance also clarified the requirements in which “leveraged leases” would be true leases for tax purposes. In a leveraged lease the lessor makes an investment as low as 20% of equipment cost and borrows the balance in the form of a non-recourse loan. As owner of the asset the lessor receives tax benefits such as depreciation and tax credits (if available) based upon the entire equipment cost. While the leveraged lease structure is being phased out from an accounting point of view (see below) it paved the way for a substantial increase in the volume of equipment leases, especially for large ticket assets such as aircraft. The combined standardizing effects of the OCC Interpretive Ruling, Regulation Y, and Revenue Procedure 75-21 have produced significant growth in this market by enhancing liquidity and causing leases to conform to traditional bank credit underwriting standards.

**Lease Accounting** Opinions by the Accounting Principles Board (“APB”, replaced by the Financial Accounting Standards Board in 1973) set forth lease accounting principles for lessees (1964) and lessors (1966). Statement of Financial Accounting Standards No. 13 (FASB 13) issued in 1976 and superseding previous opinions, set forth lease accounting standards of reporting in the form of Generally Accepted Accounting Principles (GAAP) which have been in effect for over 30 years<sup>4</sup>. FASB 13 provided rules for reporting of income and expense as well as balance sheet reporting for both leveraged and non-leveraged leases. In many respects these provisions mirrored the income tax related rules in Revenue Procedure 75-21. From the lessee point of view the most significant lease accounting rules – which had their origin in the 1964 APB opinion – are the bright-line standards for operating (off balance sheet) lease treatment. At the same time virtually all leases could be structured to allow for lessors to retain capital lease (on balance sheet) treatment. The off balance sheet treatment proved to be particularly attractive to large lessees leasing big ticket items (again, aircraft being a prominent example). For the most part the accounting principles proved to be compatible with the bank regulatory and income tax environment that had evolved.

During the same time period other favorable developments such as an Investment Tax Credit<sup>5</sup> (which could be taken by the lessor, thus reducing the lessee’s lease rate), sophisticated lease optimization software, certain lessor-favorable bankruptcy law provisions, and precise and consistent refinements in the Uniform Commercial Code also contributed to an environment that favored growth of this product. Predictably, institutional expertise in legal, tax, accounting, appraisal and other professional services developed as the leasing product became more widespread. The growth facilitated by this environment has made equipment leasing a contributory factor to economic growth.

Despite the apparent success of commercial banks generally with the equipment leasing product, there are few studies that examine of the role community banks have played and may in the future play in this marketplace. Due to the changing structure of the banking sector including concentration as well as differentiation between community and non-community banks, more attention needs to be paid to built-in advantages equipment lease financing has in alignment with successful banking practices. As the larger

banks move into areas traditionally dominated by smaller institutions, such as retail lending and mortgage lending, it becomes more and more critical for community banks to explore alternative growth opportunities such as equipment lease financing.

### **The Potential for Community Banks to Succeed in Equipment Leasing**

As was stated above, in the past 25 years, the number of banks has declined sharply. A confluence of new charters, failures, mergers between banking companies, and consolidation of charters within holding companies underlie this decline. Moreover, these changes and other structural changes in the industry (such as the enormous growth among the very largest banks) have taken place in distinct waves associated with banking crises and the business cycle and were influenced by regulatory changes that have generally been conducive to consolidation over time. Community banks emerged from this period fewer in number and with a diminished share of banking industry assets. Nonetheless, they continue to represent by far the most common business model among FDIC-insured institutions (FDIC, 2012).

In 1987, 77 percent of all community banking organizations located all of their banking offices within a single county, while another 17 percent located all of their offices within a three-county area (FDIC, 2012). In contrast, non-community banks exhibited a substantially wider geographic scope, with just 26 percent locating all of their offices within a single county and another 10 percent locating their offices within two or three counties. Community institutions continued to have a narrower geographic scope than non-community institutions through 2011, although the disparity narrowed somewhat due to the wider geographic footprint of community banks. By 2011, fewer than one-half of community banking organizations operated in a single county, although 82 percent operated within three or fewer counties. In contrast, just 37 percent of non-community banking organizations operated within three or fewer counties in 2011.

In the context of consolidation and the recent financial crisis and recession, observed differences among community banks offer important insights about the viability and future success of community banking. Gilbert, Meyer, and Fuchs (2013) indicate that the primary drivers for thriving banks are superior risk control standards, localized customer service, and prudent underwriting. Thriving banks also demonstrated reduced reliance on commercial real estate, and exhibited a diversity of approaches in achieving success. Among the structural shifts within the banking sector is the relatively constant share of commercial and industrial loans and diversity in the business line specialization of community banks.

Recent analyses of U.S. community banking indicate the existence of cross-sectional and time series variation in performance, business models, and strategic directions among community banks (FDIC, 2012; Gilbert, Meyer, and Fuchs, 2013). While consolidation within the U.S. commercial banking sector over the last quarter century has resulted in a declining number of community banks, these banks continue to play a vital role in the national economy, particularly with respect to small businesses and rural communities. At the same time, evidence of sharp declines in the community banks' share of mortgage loans and consumer loans, low profitability indicators, and the incidence of community bank failures raise concerns about the future viability of community banking.

While a number of studies have examined the challenges confronting community banks, there has been relatively limited research on the opportunities facing community banks. Building upon recent work by Gilbert, Meyer, and Fuchs (2013) which identified a number of attributes of community banks that thrived between 2006 and 2011, as well as the finding that commercial and industrial lending has been one of the more stable aspects of community banking during the past twenty-five years, this paper seeks to examine equipment lease financing as a strategic arena for community banks.

Alignment between the strengths of community banks and market opportunities represents an important element for the future of community banks. Business equipment lease financing is one product area available to community banks that is highly compatible with their approach to small business and commercial and industrial lending. Equipment lease financing has a number of implications for organizations including speeding up consideration of upgrades and replacement of equipment that would otherwise not be prompted by the existence of expiring lease agreements and cash flow benefits in the form of lower monthly payments by the lessee. While many community banks have recognized equipment financing as an attractive opportunity that fits in well with their commercial and industrial lending efforts, there is often reluctance to offer equipment lease financing because of a lack of expertise, systems issues and perceived risk (ELFF, 2013).

**Lease Market Participants.** As community banks expand their presence in leasing, they will need to take account of the complexity of this marketplace. Part of this complexity is the variety of participants and the roles they play. Equipment vendors in addition to being a source of equipment at times provide the financing themselves and thus are competitors. For example rural community banks will find that vendors of agricultural equipment such as John Deere have aggressive marketing programs directed at the bank's agricultural clients. At the same time banks will find that vendors will offer to refer sources of business to the bank. This can be positive to the extent that a bank's marketing costs are reduced. However vendors expect financing sources such as banks to cater to customers with varying degrees of creditworthiness – this will stress a bank's underwriting standards. Also vendors are very likely to have customers that are outside a local community bank's footprint, another underwriting challenge.

Another significant player in this market are lease brokers who market directly to lessees but do not themselves have financing to offer. Brokers attempt to have a number of banks and other lessors in their networks. While this is a potential source of customers for a community bank there is also the potential for brokers to cause banks to dilute their credit underwriting standards and also make decisions more quickly than they normally would. Some community banks have approached the lease product by referring transactions to lease brokers and receiving referral fees for this activity. This approach produces no balance sheet assets and runs the risk of introducing a valued commercial or small business client to another financing source.

While banks can rely on vendors and brokers, it is likely that most community banks will act as principals and emphasize their existing small business and commercial customer base. However, as community banks adapt to their current operating environment, entering into a product that is currently provided to their commercial customers by equipment vendors as well as other bank leasing operations will require innovative approaches. Because most equipment financing products are 100 percent financing, this product will benefit from the strong underwriting requirements that have been employed by thriving

banks. The equipment financing product will also have the advantage of being understood and currently used by a bank's existing commercial and industrial as well as agricultural customer base.

Community banks can develop and market this product without having to expand geographically. They will need to train bank staff at all levels to identify opportunities and arrange for proposals and quotations to be presented in a timely basis. At the same time challenges related to expertise and systems investment will prompt ongoing developments with regard to sharing access to vendors and the use of consortia among community banks (ELFF, 2013).

**Accounting Developments** The equipment lease financing market has evolved in a manner that benefits new community bank entrants. Major proposed changes to lease accounting rules, while significant, may not prove to be detrimental to community banks. In response to a 2005 Securities and Exchange Commission report<sup>6</sup> requesting that lease accounting be characterized by “objectives-oriented standards”, “consistency” and “relevant disclosures”, the Financial Accounting Standards Board in 2010 released proposed Accounting Standards Update, Leases (Topic 840) which contained applicable changes in lease accounting. The major changes involved the elimination of operating lease treatment for most financings over a year in duration and elimination of leveraged lease accounting. Most lease transactions would be accounted for in substantially the same way as the capital lease treatment in FASB 13. The purpose of this proposal was to make lease accounting more accurate and transparent and to bring it into conformance with the International Accounting Standards Board's lease accounting methodologies. There has been more comment than usual on this proposal and it was re-issued on May 16, 2013 as proposed Accounting Standards Update, Leases (Topic 842). Leveraged leases and operating lease treatment were highly attractive features of leasing for large public lessees such as railroads, airlines and large manufacturers and these structural features no doubt contributed to the growth in this area. However, a relatively low percentage of small businesses generate individual transactions that benefit from the leveraged lease structure, which tends to require amounts above \$5 million in individual transaction size. Also, these lessees rarely make financing decision based upon the availability of operating (off balance sheet) treatment. These developments (which are proposed to be retroactive, thus requiring restatement of certain prior years' activity) are a major concern for the large bank lessors such as Citigroup, Bank of America and Wells Fargo. These new features of lease accounting do not raise the same concerns for community bank lessors.

At the same time, all lessors will have to incorporate the new rules for accounting for leases. One new feature – more frequent evaluation of cash flows and the potential for more frequent post-closing adjustments to lease assets and liabilities – will likely complicate lease accounting.

### **A Brief Framework for Community Bank Leasing**

There are several keys to success in the rollout of a leasing product. One is the successful integration of the product within the banking enterprise, so that the strengths of a community bank provide a competitive advantage. The following summary of activities assumes that a community bank would approach equipment financing as a principal, retaining all lease transactions in its portfolio. An advisor may be chosen to guide the bank through each of these steps. While survival methods will take many forms, there are at least 5 important strategies that the successful community bank must implement to be

among the survivors: (i) make the necessary investment in technology, (ii) establish effective risk management practices, (iii) offer an expanded product line, (iv) establish a network of contacts, and (v) know yourself and your employees (Verrone, 1997).

**Feasibility** Initially, a prospective community bank lessor should conduct a thorough feasibility analysis to prepare the case for entry into this product. Some of the steps in this phase will include assessment of the existing (and, if appropriate, prospective) small business and commercial customer base with respect to demand for leasing services, a review of current bank profitability targets and assessment of the profitability of the leasing product as a part of the bank's portfolio, an analysis of existing loan accounting software with respect to compatibility with the leasing product (if necessary recommend third party providers if the existing platform is incompatible), an assessment of the bank's tax and regulatory framework, a presentation to officers, board, and other relevant stakeholders for approval, and a preliminary analysis of the appropriate legal vehicle for leasing (e.g., bank department, bank subsidiary or sister entity to the bank under a holding company). Among other things, this analysis should also include an exit strategy.

**Product Initiation** Once internal approvals have been obtained, the bank may proceed with product initiation and undertake the following activities: select and create the legal vehicle for leasing, develop a marketing plan for leasing, develop marketing materials and website access to leasing information for commercial customers, train commercial lenders and other parties who will market this product, develop credit, compliance and risk management policies and procedures, assist bank counsel in the production of a document package, and set up the lease documentation procedure which may include outside counsel involvement. Once a document package is approved by counsel, as appropriate, the bank may (a) set up leasing as a part of current loan accounting platform, (b) install on-premises lease accounting software, or (c) secure an off-site application service provider for ongoing lease accounting services. Finally, the bank should identify and train clerical personnel who will be involved with leasing, and establish a collateral inspection program.

For most bank lessors it makes sense to put in place a master lease for each lessee that contains all of the principal terms and conditions. The leases for individual items of equipment will be set up as separate schedules to the master lease. This will reduce overall documentation expense and streamline closings. In addition, the bank may wish to approve a lease line of credit for individual customers, thus eliminating the need to approve each schedule. Credit policies should allow for these activities.

**Servicing of the Lease Portfolio** Once the leasing product has been launched, the bank should provide for a number of ongoing servicing activities. These may be conducted with an advisor initially or by internal staff once they have been suitably trained. Some of these activities include accompanying commercial lenders and other officers on client calls, pricing of identified transaction opportunities, development of proposals and term sheets for each transaction (if required by clients), production of document packages for specific transactions, conducting closing activities, providing for accounting inputs for closed deals, supervising lease servicing activities and the collateral inspection program, month-end processing, preparation of periodic reports as needed by management, preparation of periodic financial statement inputs, and participation in inspections/examinations by regulators.

To the extent that the currently proposed accounting changes require future accounting adjustments, the bank will need to work with internal and external accountants to address any issues. (Newer entrants into the leasing marketplace are expected to have to make only minor periodic adjustments once the changes are finalized.) Incidentally, all banks will need to assess whether new accounting rules affect their capacity as a lessee; an advisor should be equipped to assist in this area as well.

**Exit Strategy** The bank's goal will be to develop a portfolio of high quality leases that are producing strong earnings with a loan loss experience that is well within its tolerance level for commercial credit products. As such, should a community bank decide to exit the business, the leasing portfolio will be an attractive asset to bank and non-bank purchasers. Among the important lease portfolio elements that will be critical to facilitating a future sale are an initial selection of a legal vehicle that takes the exit strategy and regulatory considerations into account. For example, setting up a separate legal entity may permit the 'sale of stock' as opposed to a 'sale of assets' approach at a future time. Also, if the current corporate structure includes a holding company, a non-bank vehicle – i.e., a 'sister' to the bank – may do leases for assets that a bank may not generally own, such as real estate.

There must be clear-cut rights – set forth in all applicable lease documents – to sell any and all transactions without the permission of the lessee. Documents will include reasonable notice requirements. A lease document should also include rights to inspect all equipment subject to lease, again with reasonable notice requirements. The bank should develop a rigorous collateral inspection process with written documentation of the results. Such documentation should lend itself to due diligence by potential purchasers unfamiliar with the lease portfolio.

### III. DATA

The data used in this paper were obtained from the FDIC Bank Data and Statistics (Statistics on Depository Institutions)<sup>7</sup> and the FDIC Community Banking Study<sup>8</sup>. Financial statements for all commercial banks provide the information for the variables identified to answer the four research questions identified earlier. The dataset includes all federally insured commercial banks in operation at year-end for each year from 1992 to 2012. Banks were classified as community banks based on the methodology used in the FDIC Community Banking Study. This procedure involved the following five steps which the FDIC takes to establish whether an institution is truly a community bank:

- Step 1: Aggregate bank-level data reported under each holding company into a single banking organization.
- Step 2: Exclude banks in the following specialty areas: credit card specialists, consumer nonbank banks, industrial loan companies, trust companies, bankers' banks, and banking organizations holding 10 percent or more of total assets in foreign offices.
- Step 3: Include organizations that engage in basic banking activities.
- Step 4: Include organizations with a limited geographic scope of operations.
- Step 5: Establish an asset size threshold below which the limits on banking activities and geographic scope are waived.

Table 4 presents the number of community banks and non-community banks over the 1992 to 2012 time period based on the FDIC's definition.

	Non-Community Bank			Community Bank		
	N	Number with non-zero leases	Number with zero leases	N	Number with non-zero leases	Number with zero leases
1992	1,773	556	1,217	12,080	1,542	10,538
1993	1,719	544	1,175	11,502	1,517	9,985
1994	1,679	542	1,137	10,925	1,539	9,386
1995	1,590	534	1,056	10,381	1,516	8,865
1996	1,376	450	926	10,078	1,563	8,515
1997	1,251	399	852	9,672	1,549	8,123
1998	1,259	389	870	9,205	1,446	7,759
1999	1,205	369	836	9,017	1,459	7,558
2000	1,088	320	768	8,815	1,421	7,394
2001	993	312	681	8,621	1,441	7,180
2002	938	316	622	8,416	1,396	7,020
2003	921	303	618	8,260	1,356	6,904
2004	931	291	640	8,048	1,289	6,759
2005	904	260	644	7,929	1,235	6,694
2006	925	272	653	7,755	1,181	6,574
2007	907	259	648	7,627	1,126	6,501
2008	864	235	629	7,441	1,081	6,360
2009	764	213	551	7,248	1,059	6,189
2010	642	190	452	7,016	1,024	5,992
2011	558	163	395	6,799	1,002	5,797
2012	539	158	381	6,544	959	5,585

The paper also utilizes a classification scheme developed by the FDIC to segment community banks into seven lending specialty groups based on each bank's lending portfolio (FDIC, 2012). The definition for each group is shown in Table 5.

Lending Specialty Group	Definition
Mortgage Specialists	Holds residential mortgage loans greater than 30 percent of total assets
Consumer Specialists	Holds credit card lines and other loans to individuals greater than 20 percent of total assets
Commercial Real Estate (CRE) Specialists	Holds construction and development (C&D) loans greater than 10 percent of assets OR total CRE loans (C&D, multifamily, and secured by other commercial properties) greater than 30 percent of total assets
C&I Specialists	Holds commercial and industrial (C&I) loans greater than 20 percent of total assets
Agricultural Specialists	Holds agricultural production loans plus loans secured by farm real estate greater than 20 percent of total assets
Multi-Specialists	Meets more than one of the single-specialty definitions above OR holds either retail loans or commercial loans greater than 40 percent of total assets
No Specialty	All other institutions

Source: FDIC  
Note: All specialty groups require the institution to hold loans greater than 33 percent of total assets.



Table 6 summarizes the data for Panel A, community banks and Panel B, non-community banks for the years 1992 and 2012, the beginning and end of the analysis period.

Table 6. Descriptive Statistics						
Panel A: Community Banks						
Variable/Year	Number of Observations	Mean	Standard Deviation	Minimum	Median	Maximum
<b>1992</b>						
Total Assets	12,080	110,705	241,819	1,048	52,091	6,624,719
Lease Receivable	12,080	163	1,796	-10	0	82,549
Small Business Loans*	11,469	7,284.18	14,211.3	0	2,682	506,405
Return on Assets	12,080	0.954	1.017	-17	1.080	15
Return on Equity	12,062	10.934	17.972	-848	12.200	248
Net Interest Margin	12,080	4.544	1.064	-20	4.530	20
Efficiency Ratio	12,078	68.022	32.817	16	64.530	2,063
Loan Loss Allowance/Total Loans	12,078	0.018	0.013	0	0.015	0.238
Provision Expenses/Average Assets	12,080	0.003	0.006	-0.063	0.002	0.123
Commercial and Industrial Loans	12,078	0.142	0.123	0	0.12	1
Commercial Real Estate Loans	12,078	0.131	0.112	0	0.104	0.878
Long Term Loans (5-15 Years)	8,557	0.049	0.055	0	0.031	0.833
Age of Bank	12,080	62	37.3	192	0	192
<b>2012</b>						
Total Assets	6,544	308,853	569,149	3,533	155,221	17,500,000
Lease Receivable	6,544	787	10,115	0	0	465,684
Small Business Loans*	6,544	23,524.57	33,095.2	0	13,355.5	545,330
Return on Assets	6,544	0.766	3.059	-19	0.780	231
Return on Equity	6,543	6.254	14.600	-205	7.120	700
Net Interest Margin	6,544	3.765	0.867	0	3.740	16
Efficiency Ratio	6,542	75.049	39.290	-1,666	71.820	1,211
Loan Loss Allowance/Total Loans	6,543	0.018	0.011	0	0.016	0.2
Provision Expenses/Average Assets	6,544	0.003	0.005	-0.028	0.002	0.129
Commercial and Industrial Loans	6,543	0.129	0.097	0	0.110	1.111
Commercial Real Estate Loans	6,543	0.258	0.171	0	0.238	1
Long Term Loans (5-15 Years)	6,543	0.1	0.083	0	0.081	0.805
Age of Bank	6,544	75.6	43.4	87	1	212
Panel B: Non-Community Banks						
Variable/Year	Number of Observations	Mean	Standard Deviation	Minimum	Median	Maximum
<b>1992</b>						
Total Assets	1,773	1,804,326	7,335,802	16	232,910	164,000,000
Lease Receivable	1,773	18,951	129,230	0	0	3,276,000
Small Business Loans*	1,711	48,365.22	121,606	0	10,980	1,838,893
Return on Assets	1,773	1.113	2.972	-72	1.100	48
Return on Equity	1,773	12.341	13.936	-107	14.220	110
Net Interest Margin	1,773	4.728	1.976	-1	4.600	20
Efficiency Ratio	1,768	74.540	307.990	-22	62.760	12,933
Loan Loss Allowance/Total Loans	1,734	0.026	0.1	0	0.017	4.078
Provision Expenses/Average Assets	1,773	0.006	0.01	-0.087	0.003	0.088

Commercial and Industrial Loans	1,734	0.172	0.177	0	0.146	4.262
Commercial Real Estate Loans	1,734	0.151	0.111	0	0.137	0.996
Long Term Loans (5-15 Years)	1,111	0.056	0.062	0	0.042	1.016
Age of Bank	1,773	63.2	44.5	0	61	210
<b>2012</b>						
Total Assets	539	110,705	241,819	1,048	52,091	6,624,719
Lease Receivable	539	163	1,796	-10	0	82,549
Small Business Loans*	539	275,089.9	958,179.5	0	45,408	14,500,000
Return on Assets	539	1.701	4.755	-19	0.960	53
Return on Equity	539	6.620	26.998	-341	8.190	143
Net Interest Margin	539	3.811	2.796	0	3.590	26
Efficiency Ratio	538	84.888	346.095	-1,111	64.325	6,859
Loan Loss Allowance/Total Loans	494	0.033	0.27	0	0.017	6
Provision Expenses/Average Assets	539	0.004	0.008	-0.033	0.002	0.084
Commercial and Industrial Loans	494	0.19	0.35	0	0.139	7
Commercial Real Estate Loans	494	0.272	0.2	0	0.271	0.954
Long Term Loans (5-15 Years)	494	0.1	0.1	0	0.1	0.8
Age of Bank	539	57.2	48.6	1	33	220

\*Small Business Loans were not a part of the FDIC database until 1993.

We use panel data for the period 1992 to 2012 for all commercial banks to examine patterns of equipment leasing participation by community banks and non-community banks. We are particularly interested in exploring variability in equipment leasing among community banks to determine whether there are systematic differences among community banks.

#### IV. EMPIRICAL ANALYSIS

In this section we use data in order to begin to investigate the four research questions we have proposed. First, we investigate community bank specialization and involvement in lease financing.<sup>9</sup> To this end, we compare the proportion of community banks with and without leases across the specializations from Table 5. Next, we compare community banks and non-community banks that are involved in lease financing in an effort to extract any systematic differences or similarities. In the third subsection, we investigate if there are any similarities in terms of the size of the community bank, as measured by total assets, and the propensity to be involved in lease financing. Lastly, we investigate if there are any differences in community bank performance across those community banks that do and do not provide lease financing.

##### 1. Specialization and Involvement in Lease Financing

We examined the extent to which community banks fit into the above-mentioned seven lending specialty groups developed by the FDIC: mortgage, consumer, commercial real estate, commercial and industrial, agriculture, multi-specialist and no specialty. Column 2 of Table 7 demonstrates that the most prominent community bank specialties in 2012 are commercial real estate and no specialty. Additionally, we can see that commercial and industrial lending are the least common specialties. By comparing columns 1 and 2 we can compare the 2012 distribution with the distribution in 1990 which was taken from the FDIC

Community Banking Study (FDIC, 2012). In particular, there has been considerable change in the distribution of specialty across the two years. Whalen (2007) demonstrates similar findings with respect to the changes in agricultural and commercial real estate specializations. This study found a much lower incidence of no specialty and a higher incidence of mortgage lending specialization.

Table 7 - 2012 Distribution of Community Banks in the FDIC Lending Specialty Areas and Portion involved in Lease Financing			
Specialty	Proportion of Community Banks in Lending Specialty Area	Proportion of Community Banks in Lending Specialty Area	Proportion of Community Banks in Specialty Area involved in lease financing
	(1)	(2)	(3)
Year	<b>1990</b>	<b>2012</b>	<b>2012</b>
Agricultural Lending Specialty	11.6%	14.2%	22.9%
C&I Lending Specialty	6.6%	2.2%	22.7%
Commercial Real Estate Specialty	3.6%	22.5%	13.0%
Mortgage Lending Specialty	20.5%	15.9%	6.2%
Multi-Specialty Lending	8.0%	11.2%	16.6%
No Lending Specialty	44.4%	33.4%	15.1%
Other Consumer Lending	5.3%	0.6%	16.7%
Total	N = 13,150	N = 6,544	14.7%

The last column in Table 7 uses the 2012 data to show the distribution of community banks by lending specialty who are involved in lease financing. We can easily compare the distribution in column 3 with that in column 2 to see if there are any systematic differences in those community banks who are involved in lease financing. The results indicate that, for community banks involved in lease financing, the specialties agriculture and commercial and industrial are the most common, with almost one-quarter of the banks having these specialties also having the leasing product. These percentages are substantially higher than for community banks generally. Both of these categories involve equipment which is commonly financed by leasing.

In contrast, only 6.2% of those community banks with the leasing product were involved in mortgage lending, compared to 15.9% overall, perhaps reflecting a small business vs. retail lending emphasis on the part of those community banks that provide leasing. Also 13.0% of community banks with leasing were involved in commercial real estate, compared to 22.5% overall. This may be consistent with the observation that community banks that thrived during the recent recession tended to avoid commercial real estate (Gilbert, Meyer, and Fuchs, 2013).

Although a deeper analysis would be prudent, the raw data for the most current year (2012) indicate that there may be systematic differences in specialization along the lines of those community banks who are involved in lease financing.

## **2. Community vs. Non-Community Banks: Distinguishing Attributes**

Gilbert, Meyer, and Fuchs (2013) point to several facets of thriving community banks. Among these are strong customer relationships, prudent underwriting, and superior risk controls. As noted earlier in this manuscript, these are also important facets of the propensity to participate in lease financing.

Using our data we create two measures which we believe serve as proxies for prudent underwriting and superior risk controls. These are the ratio of loan loss allowance to total loans and the ratio of loan loss provision expense to average assets. Prudent underwriting and superior risk controls reflect the capability to accurately recognize and incorporate relevant risks associated with lending activities. The loan loss allowance on a balance sheet is indicative of expected losses and we posit that stronger underwriting capability will be associated with a lower loan loss allowance.

On the other hand we also create measures which we believe capture the extent of strong customer relationships. These include the presence of small business loans, commercial and industrial loans and commercial real estate loans on a bank's balance sheet. On average, the magnitude of these types of loans is larger than retail loans. The underwriting processes for small business and commercial loans are more involved, require more interaction, and foster deeper relationships with borrowers.

Given the scope of this manuscript our sole intention is to see if the measures stated above are correlated with the propensity to engage in lease financing. In a first effort to do so, we have chosen to use a Probit regression using an indicator variable taking the value of 1 if the bank record has a non-zero lease amount and a value of zero if the lease amount is zero for a given record. A full analysis of these data would include a complete econometric specification of the model showing precisely how each independent variable is related to the propensity to engage in lease financing. Additionally, further controls would need to be included in an effort to account for any other ancillary factors concerning the propensity to engage in lease financing. Nonetheless, we have not included a full econometric specification in this manuscript so we must take all due care in interpreting our results as we cannot guarantee that the point estimates are unbiased and consistent estimators of the likelihood to engage in lease financing.

Below are the results of a Probit analysis of our measures on the likelihood to engage in lease financing using the most recent cross section of data (i.e. 2012).

Table 8 – Probit Analysis of the Propensity to Engage in Lease Financing						
Dependent variable: Lease Indicator	Coef.	Std. Err.	z	P>z	[95% Conf.]	Interval ]
Loan Loss Allowance to Total Loans	1.2246	1.89691	0.65	0.51	-2.49329	4.94249
Provision Expense to Average Assets	-14.292	4.95574	-2.88	0.004	-24.0051	-4.57893
Proportion of Commercial and Industrial Loans to Total Loans	1.55597	0.19503	7.98	0	1.17371	1.93823
Proportion of Small Business Loans to Total Loans	-1.5131	0.29602	-5.11	0	-2.0933	-0.93291
Proportion of Commercial Real Estate Loans to Total Loans	0.39802	0.17181	2.32	0.02	0.06127	0.73476
Proportion of Long Term Loans (5-15 years) to Total Loans	1.14429	0.23553	4.86	0	0.68265	1.60593
Age of Bank	0.00287	0.00050	5.69	0	0.00188	0.00386
Constant	-1.4773	0.08076	-18.2	0	-1.63569	-1.31908

Again, care must be taken when examining the relationship of the regression results since we have not created a complete econometric specification. Nonetheless, we can consider the point estimates as a measure of raw correlation. In doing so, we will focus mainly on the sign of the point estimates and will ignore significance for reasons noted above. Table 8 reveals a positive relationship for one of the proxy variables for prudent underwriting, namely, the ratio of loan loss provision expense to average assets. A reduction of this ratio implies better underwriting practices which increases the predicted probability of community banks engaging in equipment lease financing. On the other hand, the direction of the relationship for small business loans is contrary to what was anticipated since the small business loan variable was viewed to be an indicator of strong relationship banking and we hypothesize that there is a direct relationship between small business lending and strong customer relationships. A similar interpretation is associated with commercial and industrial loans.

There is a positive relationship between commercial real estate loans and the likelihood to engage in lease financing which may, be because commercial real estate may be viewed as creating opportunities for strengthened relationship banking. It should be noted, however, that Table 7 shows that in 2012 only 13% of community banks that did leasing were specialized in commercial real estate compared to 22.5% overall. Also Gilbert, Meyer, and Fuchs (2013) found that the community banks that thrived during the 2006-2011 financial crisis period tended to be less concentrated in commercial real estate, at least in part as a result of their conservative lending standards.

The coefficient estimates that are of the expected direction suggest that certain community bank characteristics are more likely to be associated with equipment leasing activity. These are long term loans, bank longevity (age of the bank), lower ratios for provisional expenses to average assets, commercial and industrial loans, and commercial real estate loans. As stated earlier care should be taken in interpreting these results, further detailed research in this area is prudent.

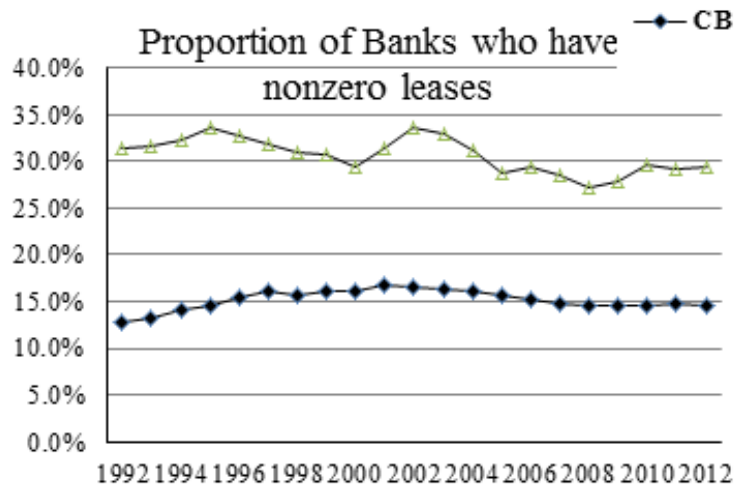
### 3. Level of Engagement in Lease Financing and Asset Size Concentration

We investigated the degree to which community banks provide the lease financing product and whether they were concentrated in a particular asset size range. Table 9 indicates that of the 6,544 community banks in 2012, a total of 959 (14.6%) have a non-zero balance in the lease receivable account. Employing the five asset size categories used in Gilbert, Meyer, and Fuchs (2013), Table 9 also indicates that the large community banks (asset size over \$1 billion) were more likely to lease. However the “penetration” rate ranged from 10.5% for the \$0 - \$50 million asset size category to 26.6% for the \$1 billion+ category indicating significant leasing activity in all size ranges.

Asset Size	Total Number of Banks	Number of Banks with Non-zero Leases	Percent of Banks with Non-zero Leases
\$1 Billion+	338	90	26.6%
\$300M - \$1 Billion	1,422	260	18.3%
\$100M - \$300M	2,633	376	14.3%
\$50M - \$100M	1,324	146	11.0%
Under \$50M	827	87	10.5%
Totals	6,544	959	

Figure 2 presents the trend in lease penetration for both community and non-community banks during the 1992 – 2012 period we examined. The penetration rate for non-community banks ranged from a low of 27.8% to a high of 33.7%, while the penetration rate for community banks ranged from a low of 12.7% to a high of 16.6%. Overall this represents a fairly consistent commitment to the product in both categories with the generally larger non-community banks roughly twice as likely to have the leasing product.

Figure 2



#### 4. Performance of Community Banks that Provide Lease Financing

We compare the performance of community banks with non-zero leases with the community banks that have zero leases using three performance ratios: Return on Assets (ROA), Return on Equity (ROE), and Efficiency Ratio (ER). As Figures 3, 4, and 5 indicate, this is consistent with our expectation, namely that those community banks that have non-zero leases are stronger performers than those with no equipment leasing activity. To test the significance of the association between non-zero lease financing and community bank performance, a random effects regression model was estimated using random effects for banks regressing each performance measure (ROA, ROE, and ER) on the lease indicator variable where 1 indicates that a community bank has non-zero leases in a particular year. In all cases the coefficient on the lease indicator is significantly different from zero. In the case of the ER the point estimate is -6.98, for ROA the point estimate is 0.07, and for ROE the point estimate is 0.37.

Figure 3

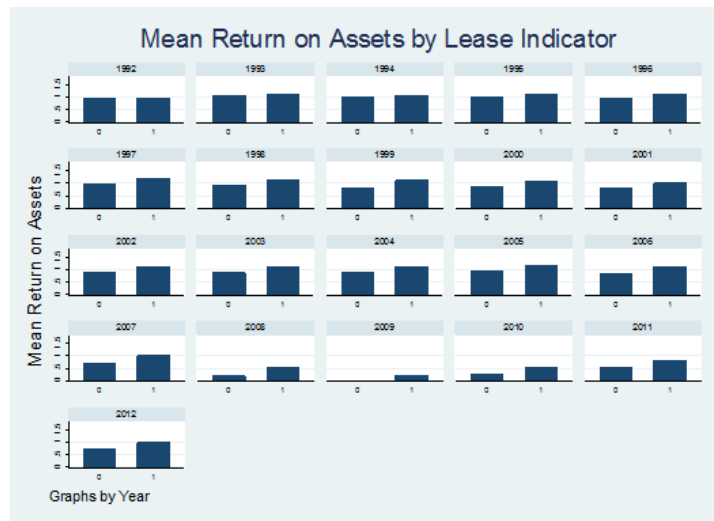


Figure 4

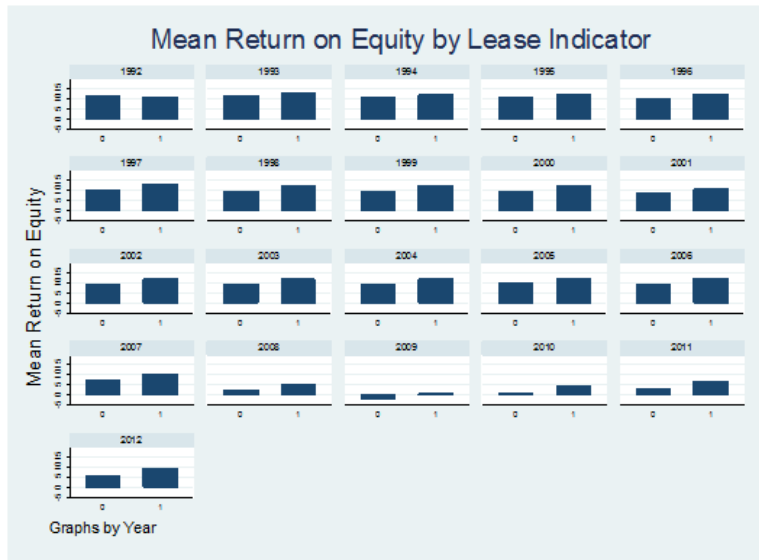
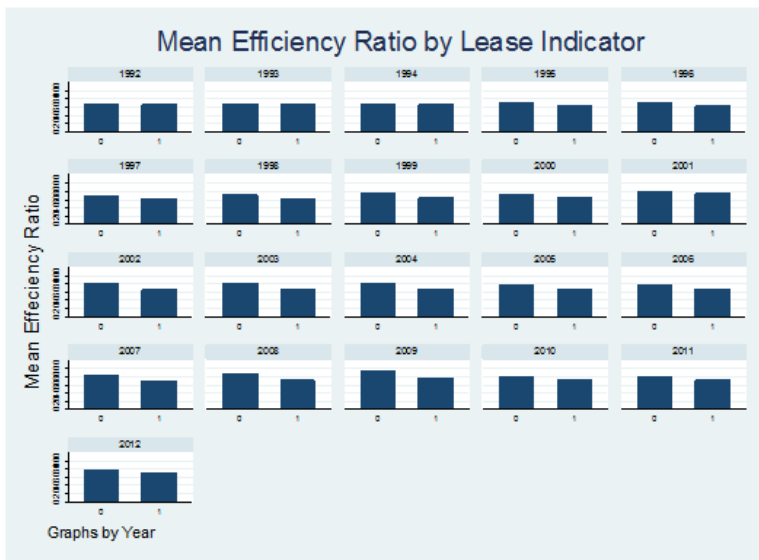


Figure 5



## V. CONCLUSION

Over the last fifty years the equipment leasing product has evolved to be a major mechanism for companies to acquire equipment. The regulatory, tax and accounting guidelines and requirements have shaped this product so that it is highly compatible with the manner in which successful community banks are known to operate. Our examination of community banking data from 1992 to 2012 reveals that community banks involved in equipment lease financing performed better than the community banks that had no involvement in equipment leasing. Regression analysis indicates that certain community bank characteristics are more likely to be associated with equipment leasing activity. These are long term loans,



bank longevity (age of the bank), lower ratios for loan loss provision expense to average assets, commercial and industrial loans, and commercial real estate loans. Community banks that have a primary lending focus in certain areas such as agriculture and commercial and industrial activities had a greater propensity to participate in equipment lease financing. We also found that the distribution of community bank involvement in equipment lease financing showed a relatively constant rate of participation over a range of asset sizes, but there was some degree of concentration in the largest (over one billion dollars) category of community bank size.

Equipment lease financing provides an opportunity for community banks to be innovative in overcoming current challenges, to strengthen their capacity for prudent underwriting and superior risk control standards while maintaining their advantage in providing localized customer service and their unique interactions and impacts on their local communities. The findings in this paper, together with factors that facilitate a bank's entrance into this marketplace such as the standardization of equipment lease transactions, plus the need to find alternative strategies for survival, strongly suggest that community banks should take another look at equipment lease financing as an option in spite of their reservation that their lack of expertise in equipment leasing is too big a hurdle to overcome.

Our findings also suggest a number of areas where future research may prove fruitful, including, among other areas: (1) the specific contribution of equipment lease finance to the performance of community banks, (2) identification of the stability of banks' participation in equipment leasing over time, in particular covering periods of recession and economic expansion, (3) tracking the effects of consolidation on bank equipment lease portfolios, including contrasting the performance of past community banks that have since been aggregated by consolidation into non-community banks, (4) expansion of the scope of investigation of the relationship between equipment leasing and small business lending, taking advantage of the significant scope of small business related data in the FDIC database, and (5) further examination of the relationship between commercial real estate lending and equipment leasing.

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## NOTES

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<sup>1</sup> For purposes of this article, community banks are defined by the criteria used in the 2012 FDIC Community Banking Study. The FDIC Research Definition of a Community Bank includes consideration of degree of specialization, assets size, number of offices, and geographic concentration (FDIC, 2012).

<sup>2</sup> Bureau of Economic Analysis, Table 5.5.5

<sup>3</sup> Revenue Procedure 75-21 was augmented by Revenue Procedures 75-28, 76-30, and 79-48. All four Revenue Procedures were replaced in 2001 by Revenue Procedures 2001-28 and 2001-29; the essential features discussed herein remained.

<sup>4</sup> FAB 13 has been modified to a limited extent by FASB 98 and several Emerging Issues Task Force reports.

<sup>5</sup> Repealed in 1981 by the Economic Recovery Tax Act

<sup>6</sup> SEC Staff Report on Off-balance Sheet Arrangements, Special Purpose Entities and Related Issues, 2005-91.

<sup>7</sup> [http://www2.fdic.gov/sdi/download\\_large\\_list\\_outside.asp](http://www2.fdic.gov/sdi/download_large_list_outside.asp)

<sup>8</sup> <http://www.fdic.gov/regulations/resources/cbi/data.html>

<sup>9</sup> To discern between banks that are and are not involved in lease financing we created an indicator variable in the data which was 1 if the bank had a non-zero balance in the *leases* variable and 0 if the bank had a zero balance in the *leases* variable.