# NONBANK ACTIVITIES OF FIFTH DISTRICT BANK HOLDING COMPANIES*

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The 1970 amendments to the Bank Holding Company Act, which brought one-bank holding companies under the regulation of the Federal Reserve System, provided stimulus for the formation of new bank holding companies, for the acquisition of independent commercial banks by these corporations, and for the expansion by holding companies into nonbank activities permitted under Federal regulation. At the time of enactment of the amendments, 111 registered bank holding companies controlled 6.6 percent of insured commercial banks and 16.1 percent of bank deposits in the United States. By the end of 1978, 2,113 holding companies controlled 27.9 percent of all domestic banks and 67 percent of bank deposits.[1] Liberalization of the criteria for permitting nonbank activities in 1970 also produced an expansion in bank holding company investment in nonbank subsidiaries. It has been estimated that these companies control nonbank firms with combined assets of $50 to $55 billion, approximately five percent of the total assets of the commercial banking system [11].

Research on the holding company movement has, until recently, concentrated on the impact it has had on bank performance, bank safety and soundness, and competition in banking markets. Also of interest is the performance of nonbank subsidiaries and their effect on the consolidated firm. Analysis of this question, unfortunately, has been hampered by data limitations. Recently, however, attention has been devoted to the financial performance of nonbank affiliates. After summarizing some of the findings of this recent research, this article will briefly examine the economic rationale for bank holding company diversification. Finally, it will report on investment by Fifth District firms in subsidiaries engaged in nonbanking activities and on the recent relative profit performances of nonbank affiliates.

**Nonbank Activities and Performance** The Board of Governors of the Federal Reserve System has authority to allow holding companies to own shares in any company engaged in activities the Board has determined to be "so closely related to banking or managing or controlling banks as to be a proper incident thereto."[2] In exercising its authority, the Board has created a list of approved activities.[3] To a large degree, approved activities are limited to those that national banks are permitted to engage in directly. The only activities on the list prohibited to national banks are industrial banking and underwriting credit life, accident, and health insurance. Bank holding companies, however, have concentrated their investment in relatively few of these nonbanking activities. Investment in nonbank lending operations (finance companies, mortgage banking, leasing and factoring) has been particularly widespread. In addition, many companies own subsidiaries engaged in credit insurance activities and firms that provide internal services for the holding company and its affiliates, such as data processing. A glossary of nonbank activities engaged in most frequently by banking organizations accompanies this article.

Several recent studies have evaluated the financial impact of selected nonbank activities on the parent corporation. In general, their findings suggest that returns to holding companies from these operations have not matched returns experienced by nonaffiliated firms. These conclusions are based upon comparisons of the performance of nonbank subsidiaries with independent companies in the respective industries or with industry averages.[4] Talley [13],

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[1] **Annual Statistical Digest** and internal records, Board of Governors of the Federal Reserve System.

[2] In determining whether a particular activity is a proper incident to banking, the Board must consider whether its performance by an affiliate of a holding company can reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interest, or unsound banking practices. Bank Holding Company Act, Section 4(c)(8).

[3] Regulation Y, Section 225.4(a) (12 CFR 225).

[4] For a review of this literature, see [2].

Boczar and Rhoades [1], and Rice [7] examined the relative performance of affiliated finance companies during 1973-76 and found them less profitable than independent firms. Finance company subsidiaries experienced an average rate of return on equity investment of 4.7 percent over the 1974-76 period while the industry averaged a 9.3 percent yield over this period. In addition, holding company subsidiaries were found to be more highly leveraged, more dependent on short-term financing, and more likely to have a higher cost of funds than their independent counterparts. Profitability of finance company affiliates appeared to improve significantly in 1976 and 1977 but it still trailed the industry as a whole [9].

Bank holding company mortgage affiliates were also found to be less profitable than independent companies and the mortgage industry in general. The severity of the 1973-75 recession in the real estate sector of the economy and its repercussions on mortgage lenders caused mortgage affiliates to suffer average net *losses* of 2.4 percent of equity per year over the 1974-76 period while the industry averaged losses of only 1.6 percent [9, 13]. Analysis of the equipment leasing area shows that holding company subsidiaries outperformed the finance company and mortgage affiliates of holding companies during 1974-76, yet they still trailed the leasing industry average. Leasing subsidiaries averaged an 8.5 percent return on equity while the industry average was 9.9 percent [9]. Insurance activities, on the other hand, have apparently been quite profitable for bank holding companies. Rice [8] found that affiliates engaged in insurance underwriting averaged nearly 30 percent return on equity investment in 1976 and 1977.

In addition to comparing bank holding company affiliate performance with independent companies within respective industries, Rice [9] analyzed total industry profit returns for banking and for five of the leading nonbank activities (consumer finance, sales finance, mortgage banking, leasing, and life insurance) engaged in by bank holding companies from 1970-76 and found that banking had the highest return on equity, with an average of 11.1 percent. The consumer finance industry realized a 10.1 percent yield, followed by 9.9 percent for equipment leasing, 9.8 percent for sales finance, 9.3 percent for life insurance, and 7.7 percent for mortgage banking. Nonbank affiliates of holding companies apparently did not perform as well (relative to banking) as the industry averages suggest.[5] For the years 1976 and 1977, return on equity to parent holding companies from consolidated investments in nonbank companies were only slightly greater than half the average return from their bank subsidiaries (6.3 percent compared with over 11 percent). Rice also categorized affiliates into financing and nonfinancing subsidiaries.[6] The returns on equity investment from financing and nonfinancing subsidiaries were 5.0 percent and 26.6 percent, respectively. Moreover, the nonbank activities of companies with less than $500 million in assets were more profitable than for larger holding companies, apparently because these firms held a larger proportionate investment in nonfinancing activities.

In summary, available empirical evidence concludes that bank holding company profit performance in major permissible nonbank activities has not, in general, matched industry standards. In addition, average returns to equity from nonbank operations have been found to be significantly below returns from bank affiliates. What then is the economic benefit or justification for holding company expansion into nonbank activities?

**Economic Rationale** It has been suggested that if "all parent resources invested in nonbank subsidiaries were instead invested in bank subsidiaries . . ., the BHC's aggregate income could have been increased" substantially.[7] If this statement were true, however, one might infer that bank holding company managements were (1) incompetent, (2) not interested in profit maximization, (3) prohibited from expanding their bank operations, or (4) positioning for interstate banking. Each of these inferences, however, has major weaknesses and none provides a fully satisfactory explanation of observed behavior. Since economic theory suggests that firms benefit from diversification if the total profits of the firm are increased or if the firm's perceived risk exposure is reduced, further examination is required.

**Increased Profits** Traditional price theory suggests that the optimal quantity of output of a firm is determined by its marginal revenue and marginal cost conditions. A profit-maximizing firm will tend to

[5] As Rice points out [9], the relative industry performances may not accurately reflect bank holding company performance since their involvement in some of these activities is restricted or altered by Regulation Y.

[6] Financing affiliates were defined to consist of finance companies, mortgage bankers, leasing companies, and factors. Nonfinancing subsidiaries were insurance underwriters and agencies, management consulting firms, and advisory companies.

[7] This conclusion is based on the assumption that bank subsidiaries could provide the same (average) return on the additional (marginal) investments [9].

invest additional resources in any activity up to the point where the last resource unit just pays for itself, i.e., where the marginal revenue derived from that activity is equal to the marginal cost of production (MR=MC).

It can be argued, of course, that required reserve ratios and limitations on the aggregate volume of bank reserves restrict a bank's ability to increase output to the point where marginal revenue equals marginal cost [14]. The prohibition on the explicit payment of interest on demand deposits together with interest rate ceilings on other small deposit categories virtually guarantees that the interest on bank loans and investments (marginal revenue) will exceed the marginal cost of such funds, at least in today's high interest rate environment. In addition, excess reserves held by member banks must be held in the form of nonearning assets. Banks, therefore, are usually eager to invest any excess reserves they may hold. There is not an unlimited supply of low cost funds, however. In fact, the trend appears to be toward a drying up of these sources. To an increasing degree, banks have been forced to rely on funds purchased at market rates of interest to finance expanded lending and investments. The marginal revenue - marginal cost analysis, therefore, does appear to be applicable to the banking firm.

Suppose that a bank produces at its profit-maximizing level and earns an average return on equity of 15 percent. The last (marginal) unit of banking services produced, however, brings in revenue that just covers its cost so that the marginal yield is zero. Investment beyond this point will actually reduce total profits since the cost of producing additional units will exceed additional revenues (MC>MR). An expansion-minded firm may then face a choice between producing more banking services or offering other services through a nonbank subsidiary (with, say, a ten percent marginal return on investment). Which investment should the firm make? In this example, it is clear the firm should diversify through the nonbank subsidiary. Investment in the nonbank subsidiary increases total profits and the investment yields a higher average rate of return for the total firm than does expanding the banking operations. If the existing investment in banking totaled $1000 and an additional $100 investment is contemplated with returns in banking and nonbanking of zero and ten percent, respectively, then the computations in Table I show that the marginal investment in the nonbank activity is the more profitable alternative. The total profit ($\pi$) equation is:

$$\pi = \sum_{i=1}^{n} W_i R_i$$

where $W_i$ is the dollar investment in the $i^{th}$ activity and $R_i$ is the activity's average rate of return on investment.

Table I

| Total Profits | Average Profits |
|---|---|
| **Alternative A** | |
| **Banking Alone** | |
| [(1000 X .15) + (100 X .0)] = 150 | 13.6% $\left(\frac{150}{1100}\right)$ |
| **Alternative B** | |
| **Banking & Nonbanking** | |
| [(1000 X .15) + (100 X .10)] = 160 | 14.5% $\left(\frac{160}{1100}\right)$ |

Generalizing, for the investment to favor the nonbank subsidiary, it is only necessary for the return on the marginal investment in the bank to be less than for the nonbank activity. The determining factor, therefore, is how much the additional or marginal investment adds to the profits of the consolidated firm. Average rates of return on prior investments can give misleading signals for management investment decisions.[8]

The decision to engage in nonbank activities might also be described by a model that represents the company as a multiple-product, price-discriminating firm [12]. In this model, the firm maximizes profit by segmenting markets—credit markets in the special case of a banking firm—with distinguishable demand characteristics and setting different prices in each market in order that the marginal revenues in each market are equal. This behavior may involve limiting production in the most profitable product markets and engaging in some marginally profitable activities.

**Reduced Risk** Theory also suggests that diversification into nonbank activities may reduce risk by reducing the variability of the consolidated firm's profits. This could result from either of two sources: (1) product-line diversification, or (2) geographic diversification. Diversification of the firm's product line may reduce holding company risk if nonbank profits do not vary directly with bank profits. Correlation coefficients can measure the degree to which bank profits and nonbank profits move together from year to year. Other things equal, the lower the

[8] One major domestic bank failure was apparently due, at least in part, to bank management confusing the concepts of average and marginal returns [10].

degree of correlation between bank and nonbank profits, the lower will be the variability (standard deviation) of holding company profits.[9]

A number of recent studies have reported correlation coefficients between banking profits and returns in nonbank activities most popular with bank holding companies [3, 4, 5, 9]. These studies have generally indicated that nonbank profits were not highly correlated with bank profits and that several were negatively correlated, thus implying potential benefits of product-line diversification.[10] According to these studies, therefore, some nonbank activities may actually enhance the stability of the consolidated firm's profit stream.

Bank holding company risk may also be reduced through a greater geographic diversification attainable via nonbank affiliates. As noted earlier, most permissible activities can be engaged in directly by commercial banks. Bank operations, however, are limited geographically by state and Federal branching statutes. A nonbank affiliate is not so restricted and is free to expand its geographic base subject to regulatory approval. To the extent geographic diversification insulates company profits from localized economic conditions and contributes to profit stability, firm risk may be reduced. Little evidence is presently available on the contribution (if any) of geographic diversification to reducing risk, however.

**Fifth District Performance** Thirty-seven Fifth District bank holding companies with total assets of $45 billion reported $2.2 billion of nonbank assets as of year-end 1977.[11] This figure, representing five percent of total assets, understates the importance of nonbank operations to some individual firms, however. The nonbank proportion of assets ranged up to 12.6 percent for one of the larger holding companies in the District . On the other hand, four smaller companies held no nonbank assets at all. Size apparently had little to do with participation in nonbank activities, however. Nineteen holding companies, ranging in size from $1.0 billion to over $4.5 billion in assets, held virtually the same proportion of total assets in nonbank firms as did the smaller firms. Nine of the firms held more than six percent of total assets in nonbank subsidiaries while only two held nonbank assets that represented more than ten percent of consolidated assets. In terms of capital investment, nonbank operations account for a more substantial share of bank holding company activities. Nonbank equity investment represented 8.4 percent of the firms' total equity capital.

Table II shows the number of holding companies owning subsidiaries involved in nonbank activities along with the proportions of consolidated assets and total nonbank assets accounted for by each activity. More Fifth District bank holding companies are active in mortgage banking than in any other nonbank activity. Twenty-five companies own mortgage subsidiaries holding 1.45 percent of total company assets and nearly thirty percent of total nonbank assets. Consumer finance, leasing, and factoring companies

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[9] The standard deviation (s) of holding company profits will be:

$$s = \left[ \sum_{i=1}^{n} w_i^2 \sigma_i^2 + 2 \sum_{i=1}^{n} w_i w_j c_{ij} \sigma_i \sigma_j \right]^{1/2}$$

where $w_i$ is the proportion of capital invested in the $i^{th}$ activity, $\sigma_i$ is the standard deviation of profits in the $i^{th}$ activity, and $c_{ij}$ is the correlation between profits in the $i^{th}$ and $j^{th}$ activities. Since bank activities constitute the predominant investment of BHCs (i.e., they have the largest $w_i$), the correlation between banking and other activities will dominate the right hand portion of the above equation.

[10] Mortgage banking showed the highest correlation with banking while life insurance and equipment leasing were negatively correlated and consumer finance was uncorrelated [9].

[11] These BHCs were located in the District of Columbia, Maryland, North Carolina, South Carolina, and Virginia. A total of 55 bank holding companies controlling nearly $55 billion in total assets are registered in the Fifth Federal Reserve District. Some of these, however, are themselves subsidiaries of holding companies. Their inclusion in the analysis, therefore, would result in double counting of assets. A few small "grandfathered" West Virginia bank holding companies were also excluded from the analysis since state law has prohibited holding company expansion in the state. These are primarily industrial firms that acquired small banking operations and therefore, differ significantly from other holding companies within the District. All nonbank financial data were derived from Bank Holding Company Annual Reports filed with the Federal Reserve System.

Table II

**NONBANK ACTIVITY OF FIFTH DISTRICT BHCs**

| | Number of BHCs Active | Percent of Total BHC Assets in Activity | Percent of Nonbank Assets in Activity |
|---|---|---|---|
| BHCs | 37 | 100 | — |
| Bank Subsidiaries | 37 | 95.1 | — |
| Mortgage Banking | 25 | 1.45 | 29.7 |
| Consumer Finance | 16 | .88 | 18.0 |
| Sales Finance | 5 | .27 | 5.5 |
| Commercial Finance | 5 | .27 | 5.5 |
| Leasing | 21 | .53 | 10.9 |
| Factoring | 4 | .60 | 12.3 |
| Insurance | 19 | .18 | 3.7 |
| Data Processing | 16 | .10 | 2.1 |
| Other | — | .60 | 12.3 |

also accounted for significant shares of total nonbank assets, although each activity represented less than one percent of total bank holding company assets. A number of companies also own active subsidiaries engaged in consumer finance, leasing, insurance, and data processing—although the latter two activities do not represent a substantial share of nonbank assets. The dominance of subsidiaries engaged in extending credit is demonstrated by the aggregate 81.9 percent proportion of total nonbank assets held by mortgage, finance company, leasing, and factoring subsidiaries.

Analysis of the profitability of bank holding company subsidiaries in the Fifth District supports the conclusions of previous studies. Compared with bank affiliates, the financing subsidiaries reported lower rates of return on equity investment while nonfinancing affiliates reported higher rates of return. Table III shows the average returns on assets and equity capital, as well as the equity to assets ratios for each activity over the 1975-78 period. The non-weighted average return on equity of financing affiliates was 6.46 percent over the entire period compared with slightly over twelve percent for the bank affiliates of holding companies. Within this category, mortgage subsidiaries reported the lowest returns with an average return on equity investment of 2.55 percent. Sales finance, factoring, and leasing were the most profitable of the financing affiliates but each was outperformed by the commercial banks. Subsidiaries involved in insurance activities, on the other hand, constituted the single most profitable activity, realizing an average annual return on equity of over sixty percent. Data processing activities yielded only 7.3 percent return on investment but most of these affiliates simply provide computer support for the corporation itself and are intended as little more than break-even operations. The few subsidiaries within the District that were engaged principally in providing data processing services to the general public, in contrast, averaged a robust 42 percent return on equity over the period.

The nonbank affiliates realized substantially higher net returns on total assets than did the banks. This is in marked contrast with results obtained when relative profits are measured by return on equity. Banking, at .84 percent, was the only activity that averaged less than one percent return on assets. Nonbank returns ranged from 1.2 percent for mortgage banking and leasing to over four percent for consumer finance affiliates and over twenty percent for insurance subsidiaries.

The apparently contradictory profit ratios reflect the high degree of leveraging evident in bank operations relative to nonbank activities. Banks fund a much larger proportion of assets with borrowed funds (deposits) while nonbank subsidiaries rely more on capital injected from the parent corporation. If nonbank subsidiaries were leveraged to the same degree as their affiliate banks, returns on equity might be higher.[12] Banks have a distinct advantage over nonbank affiliates in their access to a stable, dependable deposit base. It is difficult to know, therefore, whether return on assets or return on equity is the most appropriate profit measure when comparing affiliates.

Table III

**RETURN ON ASSETS AND EQUITY CAPITAL, AND EQUITY TO ASSETS RATIOS BANK AND NONBANK SUBSIDIARIES 1975-1978**

| | Net Income/ Assets (%) | Net Income/ Equity Capital (%) | Equity/Assets (%) |
|---|---|---|---|
| Bank Subsidiaries | .84 | 12.06 | 6.9 |
| Mortgage Banking | 1.20 | 2.55 | 19.7 |
| Consumer Finance | 4.26 | 7.84 | 29.4 |
| Sales Finance | 3.07 | 10.84 | 18.3 |
| Commercial Finance | 1.63 | 6.34 | 12.3 |
| Leasing | 1.20 | 8.62 | 21.3 |
| Factoring | 3.49 | 8.71 | 23.6 |
| Insurance | 20.88 | 63.53 | 47.2 |
| Data Processing | 2.10 | 7.29 | 58.4 |

Table III also gives the average equity capital to total assets ratios for bank and nonbank activities of Fifth District companies over the 1975-78 period. The bank ratio averages only 6.9 percent, considerably lower than that of any other activity. The financing affiliates generally had from two to four times as much equity per asset dollar as the banks, while the nonfinancing affiliates' ratios were even higher.

Table IV reports the average rates of return for the holding companies, bank, and nonbank subsidiaries, respectively, for each year. The earning trend of the holding companies was dominated by the continual improvement in profitability of their bank affiliates following the 1974-75 recession. The recession affected mortgage affiliates most harshly. The average returns on equity were negative in 1975 and 1976. The especially poor average performance in these years is dominated by severe losses realized by

[12] Evidence from consumer finance and mortgage affiliates [1, 13], however, suggest a movement toward greater leveraging was not successful in improving profitability.

Table IV

## RETURN ON ASSETS AND EQUITY CAPITAL BHC, BANK, AND NONBANK SUBSIDIARIES

(By Year)[1]

| | Net Income/Assets (%) | | | | Net Income/Equity Capital (%) | | | |
|---|---|---|---|---|---|---|---|---|
| | 1975 | 1976 | 1977 | 1978 | 1975 | 1976 | 1977 | 1978 |
| BHCs | .74 | .77 | .81 | .86 | 10.42 | 11.84 | 12.77 | 13.72 |
| Banks | .79 | .81 | .83 | .89 | 11.46 | 11.38 | 12.01 | 13.17 |
| Mortgage Banking | .00 | 1.32 | 1.33 | 1.90 | −3.51 | −1.38 | 2.70 | 6.91 |
| Consumer Finance | 1.18 | 1.26 | 9.75 | 4.76 | 4.29 | 4.65 | 11.58 | 13.68 |
| Sales Finance | .44 | 1.15 | 4.80 | 1.32 | 3.21 | 7.90 | 16.33 | 5.42 |
| Commercial Finance | .62 | −.14 | 1.89 | 4.08 | 5.43 | −14.68 | 22.74 | 14.82 |
| Leasing | .95 | 1.79 | 1.05 | 1.13 | 11.05 | 2.24 | 12.41 | 6.36 |
| Factoring | .35 | 11.13 | 3.82 | −1.34 | 2.62 | 25.15 | 13.74 | −6.68 |
| Insurance | 11.00 | 24.30 | 24.60 | 21.53 | 25.22 | 84.25 | 55.60 | 83.11 |
| Data Processing | 9.63 | 6.82 | −7.80 | 2.30 | 19.01 | 15.14 | −7.80 | 10.16 |

[1] Reported ratios represent the average of all BHCs, banks, and nonbank subsidiaries in 1975, 1976, 1977, and 1978, respectively.

a few companies.[13] Profits of Fifth District mortgage affiliates improved significantly in 1977 and 1978 but remained far behind the banks in terms of return on investment. Consumer finance companies, with return on equity less than half that of the banks in 1975 and 1976, showed considerable income growth, attaining virtual parity with the banks in 1977 and 1978. Insurance affiliates consistently turned in the highest rates of return and were apparently not adversely affected by the recession. Leasing and data processing show no discernible trend although both performed relatively well during the recession. No trend is evident for sales and commercial finance or factoring subsidiaries. The small number of companies in these activities within the District cautions against drawing inferences from their profit performance.

With the single exception of insurance affiliates, therefore, investment in nonbank subsidiaries were less profitable than bank activities for Fifth District holding companies, using return on equity as the criteria. Alternatively, when return on assets is employed as the profit measure, nonbank operations were apparently more profitable than banking.

The profit ratios also provide some insight on whether product-line diversification contributed to stabilizing profit streams of bank holding companies. Correlation coefficients were computed between rates of return for banking and each nonbanking activity of Fifth District firms over the 1975-78 period. Tentative results (see Table V) suggest that diversification benefits may be difficult to realize in mortgage banking, consumer finance, and commercial finance, since these activities demonstrated relatively high positive correlations with banking. This is not too surprising, however, since banks directly engage in mortgage, consumer, and commercial lending to major degrees. Insurance activities of Fifth District companies were also positively correlated with banking. This evidence runs counter to previous findings that life insurance industry returns were negatively correlated with banking returns. It should be remembered, however, that bank holding company insurance activities are restricted by regulation. The profit experience of insurance affiliates, therefore, may differ from the rest of the industry. It also

Table V

## CORRELATION COEFFICIENTS BETWEEN BANK AND NONBANK RATES OF RETURN

| | Correlation with Banking | |
|---|---|---|
| | Income/Assets | Income to Equity |
| Banking | 1.000 | 1.000 |
| Mortgage Banking | .839 | .950 |
| Consumer Finance | .408 | .906 |
| Sales Finance | .153 | −.020 |
| Commercial Finance | .931 | .590 |
| Leasing | −.122 | .004 |
| Factoring | −.442 | −.728 |
| Insurance | .442 | .444 |
| Data Processing | −.387 | −.273 |

[13] These losses were over fifty percent of equity per year for one company and over thirty percent for two others. If these three firms were eliminated from the sample, the average return on equity over the four-year period would improve from 2.55 percent to 8.13 percent.

should be recalled that holding company profits from insurance operations were substantial, probably eliminating any need to find risk-reducing benefits of diversification. The remaining nonbank activities apparently offered Fifth District firms some degree of reduced risk through diversification, at least over the limited period under examination. Leasing and sales finance activities exhibited either low negative or positive correlation with banking, depending on which profit ratio was analyzed. Factoring and data processing subsidiaries realized rates of return on assets and equity that were correlated negatively with banking—suggesting reduced variability of profits for Fifth District holding companies that combined these activities with banking. A note of caution should be injected into the interpretation of these results. Correlation coefficients estimated from industry (or company) averages using only a few years data must be considered tentative and cannot be relied upon as strong supporting evidence. Too few data observations are utilized for the estimates to achieve statistical significance.

To increase the number of observations used in the calculation of correlation coefficients between banking and each nonbanking activity, an effort was made to pool the cross-section and time-series data included in the analysis [6]. Relevant statistical tests (F-tests) revealed that this technique was only appropriate in the estimates involving the consumer finance and leasing subsidiaries. The correlation coefficients estimated using the pooled income to equity ratios for these two activities were +.042 and +.278, respectively. The estimated correlation coefficient between banking and consumer finance affiliates was greatly reduced using this technique while that between banking and leasing was slightly increased.

**Summary** In summary, nearly five percent of the total assets of Fifth District holding companies are held in nonbank subsidiaries. Lending operations such as mortgage banking, finance companies, leasing, and factoring constitute the bulk of this activity, but many District firms also operate data processing and credit insurance affiliates. With the exception of insurance operations, rates of return on equity investment in these nonbank subsidiaries have not matched those generated from bank affiliates in recent years. This result reflects the lower equity capital to assets ratios that banks are enabled to maintain due to their deposit powers. Rates of return on total assets, in contrast, have favored nonbank operations.

Lower (average) rates of return on equity investment do not necessarily imply that holding company diversification into nonbank areas has adversely affected bank holding company performance. Economic theory and recent experience suggests that average rates of return can be misleading. Basic economic principles show that total profits can be increased by investing in nonbank areas with lower *average* rates of return than banking—provided nonbank investments yield higher *marginal* returns than the banking alternative. Also, preliminary evidence suggests that some nonbank activities of bank holding companies may have contributed to reducing the variability of the consolidated firms' profit streams.

## GLOSSARY OF NONBANK ACTIVITIES

**Commercial Finance** Companies providing financing of business accounts receivables and of sales of commercial, industrial, and farm equipment.

**Consumer Finance** Companies making direct cash loans on an instalment basis to individuals.

**Data Processing** Companies providing computer software services and data processing consisting of the preparation of reports from data supplied by the customer. Includes companies providing services solely for the internal operations of the bank holding company system as well as for the general public.

**Factoring** Companies engaged in factoring and rediscounting of accounts receivable, commercial paper, and instalment notes.

**Insurance** Companies providing insurance agent or broker services for their parent company or any subsidiary; providing insurance that is directly related to an extension of credit or that is provided solely for the convenience of the purchaser; acting as insurance underwriter directly or as reinsurer for credit accident and health insurance directly related to an extension of credit by the holding company system.

**Leasing** Companies engaged in the direct leasing of property and equipment to the general public or to other affiliates within the same holding company.

**Mortgage Banking** Companies originating and servicing loans secured by real estate or providing financing secured by real estate for construction projects.

**Sales Finance** Companies purchasing instalment paper which arises from retail sales of passenger automobiles, mobile homes, other consumer goods, or expenditures for home improvements.

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