Jack of All Trades? Product Diversification in Nonfinancial Firms

*Mitchell Berlin**

The announcement of Citicorp's merger with Travelers Insurance, and much of the accompanying commentary by banking observers and consultants, included many references to cross-marketing opportunities, one-stop shopping, and other potential *scope economies*—the gains from having a single firm provide different goods or services. Some skeptics have noted that these scope economies, which seem so plausible, have been difficult to exploit profitably. The diversification strategies of financial firms from Sears to American Express have been notable more for unfulfilled expectations than for high profits.

While financial firms keep searching for the secret formula to make profits out of providing multiple financial services under one roof, nonfinancial firms seem headed in the opposite direction. For well over a decade, CEOs in the nonfinancial sector have increasingly shunned terms such as synergies; currently, their mantras are *corporate focus* and a renewed emphasis on *core businesses* and *core competencies*. For the last few years, economists have been working to document, understand, and evaluate both mar-

*Mitchell Berlin is a senior economist and research advisor in the Research Department of the Philadelphia Fed.

ket participants' romance with the idea of corporate focus and the problems of diversified firms. So far, the evidence mainly supports business consultants' arguments that focused firms are more profitable.

Why are financial firms diversifying while nonfinancial firms are becoming more focused? It's possible that different industries require different strategies. The ruling wisdom in nonfinancial markets may not apply to financial markets, which have been fragmented by regulatory restrictions for much of the last century. Also, there are vagaries in the ways we define products and services. It is not clear whether Citicorp and Travelers even provide different products, if "products" are broadly defined; both firms deliver retail financial services.

Still, the evidence from nonfinancial markets may be instructive to bankers, investors, and also policymakers as they evaluate the potential benefits and costs of the growth of large financial conglomerates, the most likely immediate outcome of the product expansions envisioned in recent financial modernization bills. Plus, a better understanding of the changing patterns of diversification in nonfinancial industries can provide insight into the likely evolution of financial markets less fettered by regulatory boundaries.

TRENDS IN DIVERSIFICATION

When a business chooses to expand into a new product line, it can take a number of directions. Consider Mama Tried, Inc. (MT), a specialized manufacturer of buckled rubber galoshes for children, whose managers anticipate a period of slow growth in demand, as the last baby-boomers' children become teenagers. MT could seek to exploit its reputation for producing quality raingear by buying a new factory to produce raincoats. Alternatively, the firm could branch into producing rubber hoses, hoping for quantity discounts from the suppliers of its most important input (synthetic rubber). Finally, MT might try to eliminate haggling with its suppliers altogether by purchasing its main supplier of synthetic rubber outright.

Most of us would consider any of these choices as *related* product extensions that do not change the firm's degree of focus: (i) raincoats and galoshes are similar products; (ii) rubber hoses and rubber galoshes share a common input; and (iii) MT and its rubber supplier are vertically related, that is, MT uses an input produced by the rubber supplier. We would not view any of these moves as a *change of focus,* that is, a move into a new product market. (But see *Classifying Product Markets in a World That Resists Classification.*) Of course, the firm could branch into producing auto parts, a market that almost anyone would classify as unrelated to the production of galoshes. For example, if MT purchases another firm that owns an automotive metal stamping plant, the merger would be classified as a conglomerate merger and a change in focus.

Firms Diversified in the 1960s and 1970s... Between the end of World War II and the beginning of the 1970s, firms increasingly sought to expand into *unrelated* product lines (Table 1). These expansions occurred as the pace of merger activity quickened.

What about the economy as a whole during this period? Although there are no systematic data on changes in the degree of diversification for all firms, David Ravenscraft and Frederick Scherer examined a sample of 471 manufacturing firms that participated in the Federal Trade Commission's (FTC) Line of Business survey between 1975 and 1978. These firms owned approximately 70 percent of the plant and equipment of the U.S. manufacturing sector at that time, so they offer a fairly comprehensive picture of changing business practices in the manufacturing sector and, perhaps, in the economy as a whole.

The authors found that firms in all size classes operated in many more product markets in 1975 than they had 25 years earlier (Table 2). This conglomerate merger wave generated a host of

Classifying Markets In a World That Resists Classification

The standard industrial classification (SIC) has been used for the last 60 years by economists to identify the products produced by a firm (or firm segment). The code identifies a product in much the same way that a zip code identifies a neighborhood. The first number assigns a product to a very broad category, for example, 0 places a product in the category *agriculture, forestry, and fishing,* while 1 identifies the category *mining.* Each subsequent number distinguishes the product at a progressively finer level. Although some establishments report detail down to the seven-digit level, the finest level of detail available for all establishments is the six-digit level, for example, SIC 282104, *Plastic resins consumed in the form of granules, pellets, powders, liquids, etc., except sheets, rods, tubes, and shapes.*

SIC codes are tremendously useful, but as with any system of categories, there will inevitably be arbitrary choices. Let's take a look at Mama Tried. At the four-digit level, children's galoshes are classified under *Rubber and Plastics Footwear* (SIC 3021). If MT starts producing children's raincoats, it has entered a new two-digit industry, *Apparel and Other Textile Products* (SIC 23), which includes *Waterproof Outerwear* (SIC 2385). But if it begins to produce rubber hoses—included in *Rubber and Miscellaneous Plastics Products* (SIC 30)—MT *hasn't* entered a new two-digit industry, since both galoshes and hoses share the same first two digits (30). Are children's galoshes and raincoats more or less related than galoshes and hoses are? Now, if MT buys its supplier of synthetic rubber—the main input into galoshes—it enters a new industry at the *one-digit* level, *Chemicals and Allied Products* (SIC 28), since the first digit of the new industry (2) is different from that of galoshes (3). But shouldn't vertically related products be treated as related?*

But even if products could be defined with complete precision, an even more fundamental problem remains. The number of products produced by a firm is only one way of determining a firm's degree of focus, a point made forcefully by Steve Kaplan and coauthors Mark Mitchell and Karen Wruck. They present a case study of Cooper Industries Inc., a highly efficient manufacturer of commodity-type industrial products, that is, industrial products for which brand image, post-sale product support, or other personal relationships don't matter much. The firm's expertise lies in the type of production process at which it excels, rather than the particular products it manufactures. Thus, a firm might produce a wide range of products, spanning the SIC system of codes, yet reasonably be viewed as a highly focused firm. This problem is widely recognized by researchers, but it has not yet been successfully addressed in empirical studies.

In March 1999, the Census Bureau began replacing the SIC system with the new North American Industry Classification System (NAICS). While the earlier system defined product categories according to multiple criteria, including the type of customer served and the underlying production process, the new system adopts a single criterion, the nature of the production process. Reflecting the rapid introduction of new products in recent years, the NAICS has updated industry groupings and introduced more categories at the one-digit level. The Census Bureau intends to review and revise the NAICS every five years to keep pace with changes in the economy.

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*Thus, researchers can easily disagree about whether a particular decision to merge or acquire assets involves a move into a related or an unrelated industry. Researchers have used various techniques to overcome this problem. Allowing individual firms to have multiple SIC classifications or using broad groupings (say, two-digit SIC codes) is a conservative approach, which avoids making excessively sharp distinctions between firms' products. Some researchers have used input-output tables to ensure that vertically related products are not classified as unrelated. At least one researcher, David Scharfstein, took the interesting approach of limiting his sample size so he could examine each firm in the sample and make a personal judgment. Of course, each of these approaches presents difficulties.

TABLE 1

Conglomerate Mergers As a Share of Total Mergers

Total Assets Acquired in Pure Conglomerate Mergers as a Share of Total Assets Acquired

1948-77, Large Manufacturing & Mining Firms

1948-53	1956-63	1963-72	1973-77
3.2%	15.9%	33.2%	49.2%

1950-77, Manufacturing Firms

1950-55	1956-63	1964-72	1973-77
5.3%	18.4%	36.2%	32.4%

Source: Ravenscraft and Scherer, pp. 23, 24. Numbers for 1948-77 are taken from the Federal Trade Commission; numbers for 1950-77 are from calculations by Ravenscraft and Scherer.

TABLE 2

Increase from 1950 to 1975 in Number of Lines of Business* for Firms in the FTC's Survey

Average Number of Lines of Business

Company rank in terms of 1975 sales	1950	1975
Top 100	4.48	12.38
101-200	3.38	9.27
201-300	2.11	6.56
301-400	1.73	4.85
401-471	1.62	3.42
All 471 Firms	2.73	7.54

*Lines of business are classified into 261 separate manufacturing categories at the four-digit level (compared to 451 four-digit SIC codes for manufacturing in 1972). Respondents were instructed not to report separate lines of business for vertically related products and were permitted to exclude lines of business with sales less than $10 million.

Source: Ravenscraft and Scherer, p. 28.

theories about the potential benefits of corporate diversification. (See *The Arguments for Diversification*.)

...But They Got More Focused in the 1980s and 1990s. Using business segment data reported by firms to the Securities and Exchange Commission and measuring the degree of diversification a number of different ways, Robert Comment and Gregg Jarrell provide evidence that the earlier trend toward diversification was reversed and that firms focused on fewer product lines throughout the 1980s (Table 3). In fact, by the end of the 1980s, over half of the firms in their sample had only one business segment.[1]

The wrenching corporate restructurings of the 1980s also point to a move toward greater focus

[1]While the weight of the evidence points to an increase in focus since the 1980s, Cynthia Montgomery makes the telling point that diversification across multiple product lines is still very much the norm for the *largest* businesses in the U.S. In fact, some of our most successful and profitable firms—General Electric, for example—remain highly diversified. Montgomery finds that between 1985 and 1989 (and 1989 and 1992) product diversification for the 500 largest U.S. public companies stayed roughly constant. This finding suggests that the increase in the average level of focus found by Comment and Jarrell was not true of the very largest firms in the sample.

The Arguments for Diversification

The Benefits of Internal Capital Markets. A firm's cash flows can be paid out to bondholders and stockholders, who can then choose how to reinvest the funds, perhaps investing them in another firm. Alternatively, the firm's head office can retain earnings internally and decide how funds should be distributed within the firm—what economists call an *internal capital market*. Oliver Williamson has argued that the head office of a conglomerate may be better equipped than market participants to evaluate the relative profitability of investment projects. Milton Harris and Artur Raviv showed that a firm's head office can better design efficient reward and evaluation schemes for capital budgeting purposes. Glenn Hubbard and Darius Palia have provided some evidence that during the diversification wave of the 1960s, investors recognized the benefits of internal capital markets.

The Resource View. Cynthia Montgomery and Birger Wernerfelt have argued that firms seek to extend the use of fixed resources, such as managerial skill, as long as such use is profitable. For example, a firm might diversify outside its core market into less profitable markets if it has exhausted profitable opportunities in its core market but the firm's managers have spare time. Interestingly, this view predicts a negative relationship between diversification and measures of the profitability of the firm's investment opportunities (because the firm has moved into a less profitable market). But contrary to theories of inefficient diversification (which are examined in greater detail in the body of this article), the firm's diversifying investments don't reduce firm profits.

Tax Benefits. A temporarily unprofitable division's losses can be set off against the total profits of the firm to reduce the firm's tax bill. Empirical evidence shows that such tax benefits help explain a firm's gains from diversification, but the potential gains from being able to offset profits are relatively small.

in the United States. The 1980s were a volatile period in the market for control over corporate assets. Assets were sold off to acquirers and spun off as independent firms by corporate raiders, and the incumbent managers of firms did much the same, partly in fear of becoming a raider's next target. To a significant extent, we can view the restructurings of the 1980s as an undoing of the excesses of the preceding movement toward diversification.

At least three studies have documented this process. Following the fortunes of the 471 manufacturing firms in the FTC's Line of Business survey—which accounted for three-fourths of the mergers among all manufacturing firms between 1950 and 1976—Ravenscraft and Scherer estimated that one-third of assets purchased between 1960 and 1976 were ultimately divested. In numerous case studies and using econometric analyses, they found that conglomerate mergers were the most likely to be undone by selling unrelated assets.

Looking at a narrower sample of 271 large acquisitions completed between 1971 and 1982, Steven Kaplan and Michael Weisbach discovered a similar pattern. In their sample, 44 percent of the firms purchased were ultimately sold off to other firms, spun off as free-standing firms, or liquidated outright. These divestitures typically led to an increase in focus, both for the divesting firms and for firms in the aggregate.[2]

Sanjai Bhagat, Andrei Shleifer, and Robert

[2]The original target firm—the firm initially acquired—was four times more likely to be sold off eventually if its business was unrelated to that of its initial acquirer. Only 20 percent of the assets divested were purchased by an unrelated firm, while 43 percent of the sales were to firms in related businesses. Kaplan and Weisbach view two firms as unrelated if the firms' four most important lines of business, as reported in Dun and Bradstreet's *Million Dollar Directory*, don't have at least one three-digit SIC code in common.

TABLE 3
Getting Focused in the 1980s

Fiscal year	Number of firms[a]	Percent with one segment[b]	Average number of segments	Average number of SIC codes[c]
1979	2,008	38.1	2.53	4.09
1980	2,000	38.8	2.50	4.08
1981	1,991	40.2	2.45	4.03
1982	1,959	40.9	2.42	3.98
1983	1,963	41.8	2.38	3.91
1984	1,934	43.4	2.30	3.78
1985	1,917	46.0	2.20	3.63
1986	1,938	50.3	2.08	3.46
1987	2,038	53.6	2.00	3.32
1988	2,085	55.7	1.94	3.23

[a]Exchange-listed firms covered by Compustat

[b]Note that segments and lines of business, referred to in Table 2, are drawn from separate data sets and are not directly comparable. The SEC defines a segment as that part of a firm that: (i) produces at least 10 percent of the firm's revenues; (ii) produces a product that is substantially different from products produced by the firm's other segments; and (iii) is not vertically related in production to the firm's other segments. See the article by Frank Lichtenberg and the one by Philip Berger and Eli Ofek (1995) for discussions of some of the pitfalls of using segment data to measure diversification.

[c]SIC code at the four-digit level

Source: Comment and Jarrell, p. 71

Vishny provided corroborating evidence of a "return to specialization" in the 1980s through corporate restructurings. Using a sample of 62 successful hostile takeovers between 1984 and 1986, these authors found that fully 72 percent of the assets changing hands ultimately ended up in the hands of buyers in related businesses.[3]

WHY HAVE NONFINANCIAL FIRMS INCREASED FOCUS?

Studies suggest that firms usually become less profitable when they become more diversified. Ravenscraft and Scherer followed their 471 manufacturing firms for a number of years, both preceding and following a merger. They found that during the conglomerate merger wave of the

[3]Bhagat, Shleifer, and Vishny include firms in which the hostile takeover led to temporary control by a leveraged buyout firm that subsequently sold off segments to purchasers in related industries. The authors are not explicit about their criteria for deciding whether two products are related.

1960s and early 1970s, the typical purchaser acquired a firm that had been performing better than others in its industry. Nonetheless, the merged firms' performance usually deteriorated, and conglomerate mergers were the ones that fared the worst, according to accounting measures of performance.[4]

Firms also seem to become more profitable when they increase their focus. Lane Daley, Vikas Mehrotra, and Ranjini Sivakumar examined the subsequent performance of a sample of 212 spinoffs between 1975 and 1991. In a spinoff, part of a firm is split off and becomes independent.[5] Prior to Daley, Mehrotra, and Sivakumar's work, many studies had found that a parent firm's stock price typically rises when a spinoff is announced (in economist's lingo, a positive *announcement effect*), evidence that market participants view a spinoff as good news about the firm's future profitability. But why? The authors discovered that this positive announcement effect was actually confined to those firms spinning off an *unrelated* segment, but other spinoffs had no positive effect on stock prices at all, evidence that market participants expect higher profits with an increase in focus.[6]

The authors then examined the subsequent performance of both the original firms and of the spun-off firms to see whether market participants' optimism was rewarded. Corroborating the stock market evidence, the authors discovered improved operating performance at the parent firm, but only if the parent and the spinoff were in unrelated markets.

More Evidence From the Stock Market About the Benefits of Focus. In the 1980s and 1990s, stock market participants have consistently rewarded focus and penalized diversification by paying less for the stocks of diversified firms than for those of their specialized counterparts, the so-called *diversification discount*.

Philip Berger and Eli Ofek have written a number of influential articles developing the "chop shop" approach to measuring the diversification discount.[7] In this approach, the authors look at each of the diversified firm's segments separately and compare them to a representative specialized firm in the same industry.[8] This com-

[4]But note that economists are always skeptical of the uncritical use of accounting measures of economic performance. See the article by Steven Kaplan and coauthors Mark Mitchell and Karen Wruck for some interesting examples of instances in which accounting measures misrepresent the performance of firms following a merger.

[5]Spinoffs are especially interesting because an analyst can follow the subsequent performance of a firm that is spun off, as well as the performance of its former owner. When a firm is sold, such an analysis often can't be done because the firm becomes part of the acquirer.

[6]In Daley, Mehrotra, and Sivakumar's study, the parent and the spinoff were defined as unrelated if they did not share an industry classification at the two-digit level. At this broad level of classification, most analysts would agree whether two firms are related.

[7]The chop shop approach was first used by Dean LeBaron and Lawrence Speidell. There are two main variants. In the first, Berger and Ofek calculate a representative stand-alone firm's ratio of sales to market value and apply this ratio to a segment's sales to calculate the segment's hypothetical market value. (The representative firm in an industry is defined as the specialized firm with the *median* value of the ratio.) They also repeat the procedure using the ratios of assets to market value and earnings to market value to obtain two additional estimates. The second approach compares the diversified firm's actual market value with a hypothetical market value for the sum of its segments. This hypothetical value is calculated using q—the ratio of a firm's market value to the book value of its assets, which is often used to measure the market's valuation of a firm's investment prospects. The diversified firm's hypothetical market value is a weighted average of the q-ratios of representative specialized firms, one for each segment of the diversified firm. Berger and Ofek's 1995 article has a good discussion of the problems with each approach.

[8]Berger and Ofek define the industry at the four-digit level if there are at least five stand-alone firms in that four-digit-level industry; the authors move to the three-digit level if there are less than five stand-alone firms at the four-digit level, and so on.

parison is used to hypothetically chop up the firm and determine how much each segment would fetch in the market—its hypothetical *stand-alone* value. Comparing the stand-alone values of the diversified firm's segments and the firm's actual market value provides a measure of the diversification discount.[9]

In their 1995 study, Berger and Ofek found not only that a diversification discount exists but that this discount is large: it averages about 15 percent of the value of the firm as a whole. If such a large discount exists in practice (and not just hypothetically), why don't the stockholders of such a firm force its managers to sell or spin off assets or demand other changes in the diversified firm's policy to raise its value?

In a 1997 study, Berger and Ofek, as well as other researchers, answer that this is exactly what happens. Firms with larger diversification discounts are substantially more likely to restructure to increase the firm's focus. Echoing the results for spinoffs, investigators have found that stock market participants respond favorably to asset sales and divestitures that increase the selling firm's degree of focus.[10]

SOURCES OF THE DIVERSIFICATION DISCOUNT

Recent empirical evidence alerts us to the difficulties of running a diversified firm profitably. Why is it so difficult to make a profit?

Jack of All Trades, Master of None? One simple and intuitive explanation has found particular favor in the business press. Staying focused on closely related products is the corporate version of following the well-known adage "stick to what you know." In this view, a manager's expertise is specific to a particular product; operating in multiple markets may tax the manager's attention and abilities. In a closely related view, some economists say that designing the right incentives for managers gets progressively harder as new products are added and the operating environment becomes more complicated.[11]

The empirical evidence for this view comes mostly from case studies of conglomerate mergers, in which the managers of the acquiring firm simply didn't understand the subtleties of the new markets they were entering.[12] Kaplan and coauthors quote a former manager for Premark, a diversified producer of plastic laminates and other home products (including Tupperware). Referring to his firm's troubled acquisition of a previously successful producer of decorative kitchen tiles, he said, "We did not know the decorative products business; we knew laminates."

Kaplan and coauthors also illustrated the complexities of maintaining appropriate incentives and controls for different types of markets. In a case study of Cooper Industries' purchase of Cameron Inc., they detailed Cooper's centralized control over even the tiniest expenses—a key to Cooper's prowess in the production of standardized products. (Cooper's success in introducing this system in the firms it acquired was so widely admired that industry observers

[9]The sum of the stand-alone values can be lower than that of the actual firm. In that case, the market would be saying the firm is worth more than the sum of its parts, and we would be speaking of a diversification premium.

[10]Kose John and Eli Ofek present the evidence for asset sales, and Berger and Ofek present the evidence for divestitures in their 1996 study. Of course, even if market participants are correct in discounting the value of a diversified firm, the costs of making a transition to a new (more focused) organizational form may outweigh any potential gains, and shareholders would not necessarily support any such change.

[11]Chaim Fershtman and Ehud Kalai propose an attractive model of the difficulties for managers of firms operating in complex environments based on managers' limited cognitive abilities. Julio Rotemberg and Garth Saloner analyze some of the difficulties in giving managers appropriate incentives when a firm operates in multiple markets.

[12]Ravenscraft and Scherer provide numerous case studies that support this view.

had coined the term cooperization.) However, detailed expense control from the top was viewed as wasteful meddling by Cameron's managers, who saw personal relationships with customers—not saving nickels and dimes—as the key to success.

The Dark Side of Internal Capital Markets: Corporate Socialism? The idea that the managers of a diversified firm might have an advantage over poorly informed capital market participants in deciding how to allocate funds is one of the most convincing arguments in favor of diversification. But the empirical evidence has increasingly supported an alternative, less optimistic view of *internal capital markets.*[13] Recent evidence suggests that internal capital markets are prone to propping up poorly performing segments by shifting corporate money from more profitable to less profitable uses.[14]

First, diversified firms that have a segment with negative cash flow suffer a greater loss in value than specialized firms with negative cash flow, evidence that diversified firms stick with losers longer than would the marketplace.[15] Second, segments of diversified firms typically invest more than comparable stand-alone firms in the same industry.[16] But does higher investment indicate a problem or a benefit of internal capital markets? A third finding says that it's a problem. Segments in industries with strong investment prospects invest *less* than their stand-alone counterparts, while segments in industries with poor investment prospects invest *more* than their stand-alone counterparts.[17] Finally, Rajan, Servaes, and Zingales found that the shifting of funds from winners to losers is greatest in those firms in which different segments have widely divergent investment prospects. This result is consistent with the authors' own view of the internal capital market, in which the head office "buys" the cooperation of segments with weaker prospects by shifting funds in their direction.[18]

[13]An internal capital market is an economist's term for a firm's practice of allocating cash flows to new investments within the firm, rather than returning cash to stockholders and bondholders as dividends or interest payments and, thus, allowing the funds to be reallocated through financial markets.

[14]Much of the empirical evidence for inefficiency is based on the assumption that market participants' evaluation of a firm's prospects is usually right. Vojislav Maksimovic and Gordon Phillips have also criticized the previous literature, arguing that an *explicit* model of optimal investment behavior by multiproduct firms is needed to determine whether a particular pattern of observed behavior is inefficient. They provide evidence that differences in the investment behavior between conglomerate and specialized producers can be explained as the outcome of efficient investment decisions in a market that includes both conglomerate and specialized firms.

[15]This has been documented by Berger and Ofek (1995).

[16]This has been documented by Berger and Ofek (1995); Hyun-Han Shin and Rene Stulz; David Scharfstein; and Rajan, Servaes, and Zingales.

[17]This tendency for firms to shift funds from winners to losers has been termed corporate socialism by David Scharfstein. It has been documented by Owen Lamont, by Scharfstein, and by Rajan, Servaes, and Zingales. Shin and Stulz also show that a segment's own investment level doesn't depend on its own prospects compared with those of the other segments of the firm. This finding is further evidence of inefficient investments.

[18]In this interesting model, the firm's divisions bargain for funds, and divisions can sometimes increase their bargaining power by making investments that do not benefit the corporation as a whole. This behavior is most likely for divisions with poor investment prospects. By increasing weaker divisions' share of corporate funds, the head office buys their cooperation and induces them to make profit-maximizing investments. For example, a weak division's managers can be induced to forgo an investment that increases the division's own visibility outside the corporation—but doesn't increase the corporation's profits—only as part of an ongoing bargain in which they get a disproportionate share of corporate funds for investment. In the model, inefficient transfers arise only when a firm's segments have very dissimilar prospects; diversification *per se* is not the source of the problem.

Some Evidence From Banking Markets. Although the literature has mostly examined nonfinancial firms, banking scholars have uncovered evidence of internal capital markets in bank holding companies. Consistent with the evidence from nonfinancial firms, findings from a study by Joel Houston, Christopher James, and David Marcus showed that loan growth in a bank subsidiary is affected by its holding company's cash flow, rather than its own cash flow. In addition, loan volume grows faster at a bank when the cash flows of *nonbank* subsidiaries of the bank's holding company are high, thus demonstrating that the holding company's internal capital market leads to bank lending decisions different from those that would be made by a stand-alone bank. However, unlike the literature on nonfinancial organizations, there is, so far, no empirical evidence of inefficiency.[19]

IF FOCUS IS SO GREAT, WHY DID FIRMS DIVERSIFY IN THE FIRST PLACE?

The extensive evidence for a diversification discount has given rise to lively debate. How did it arise in the first place, and why does it persist? Have stockholders always penalized diversified firms? If the answer to this last question is yes, then managers, not stockholders, were the intended beneficiaries of diversification. For example, some financial economists argue that stockholders suffer from managers' desire to build great empires rather than to increase profits.[20]

The Behavior of the Diversification Discount Over Time Is a Puzzle. In three separate papers, Henri Servaes, John Matsusaka, and Peter Klein provided evidence that stockholders supported diversifying mergers during the early 1970s, the latter part of the conglomerate merger wave. That is, it appears that the diversification discount did not exist during the first half of the 1970s. This finding supports the view that the diversification wave of the late 1960s and early 1970s may have been a mistake, but not the view that it was a victory for managerial self-interest over stockholder value.

But Servaes also found that stock markets imposed a significant penalty on diversifying mergers throughout the 1960s, the period in which conglomerate mergers first picked up speed and then peaked (according to most measures). Thus, evidence from the stock market doesn't fully support the view that it is only with 20-20 hindsight that stockholders found out that most conglomerate mergers were against their best interests. This historical pattern in which stockholders penalized diversification throughout the 1960s, changed their minds in the first half of the 1970s, then shifted back again in the 1980s and 1990s remains a puzzle that no existing theory has explained convincingly.

Maybe the Economy Has Changed. The increasing diversification that occurred from 1950 to 1975, which was followed by a trend toward greater focus in the 1980s and 1990s, has led some economists to hunt for changes in the economy that might have made diversification attractive at first, but less so later on.

[19]Peter Klein and Marc Saidenberg found that banks within bank holding companies lend more than otherwise similar stand-alone banks and are equally profitable. Hence, beneficial *geographical* diversification effects within bank holding companies are not outweighed by the types of organizational difficulties that have been found in diversified nonfinancial firms. However, note that this result does not imply that *product* diversification in financial firms will prove to be more efficient than for nonfinancial firms. It is reasonable to view lending in Delaware and lending in Illinois as substantially the same financial product, at least once a bank has gained sufficient experience.

[20]Empire building is only one reason managers might have a desire to diversify even against stockholders' interests. Some economists, for example, Yakov Amihud and Baruch Lev, have argued that managers seek to reduce their own risks at investors' expense by diversifying into different markets.

For example, antitrust policy changed under the Reagan administration and could have generated a trend toward greater focus.[21] Until the 1980s, horizontal mergers—mergers between firms in the same product markets—were viewed with hostility by the antitrust authorities. According to one account, the hostility of the Justice Department kept a lid on combinations between large firms in the same market, until the Reagan years ushered in a new antitrust policy that was less suspicious of concentrated markets. This change permitted a return to specialization.

Unfortunately, the evidence doesn't offer much support for this view. John Matsusaka has presented compelling evidence from the early 1970s that large firms—firms subject to surveillance by the Justice Department—and small firms—firms unlikely to attract the Justice Department's attention—were equally likely to merge with a firm in an unrelated market. Since antitrust considerations don't seem to explain conglomerate mergers, why view the move to greater focus as a belated attempt to assemble firms that were previously forbidden? In fact, there is evidence that the mergers, acquisitions, and asset sales that occurred between 1981 and 1989 didn't actually increase concentration on average.[22]

Another possibility is that capital markets became more efficient at allocating funds and assets and at disciplining poor managers.[23] In this view, internal capital markets may have been necessary in the 1950s and 1960s, but the stock and bond markets can now do the job better.

It is easy to point to fundamental changes that have increased the efficiency of capital markets as a means of mobilizing funds and keeping a check on managers. For example, the deregulation of investment banking fees and shelf registration have made it cheaper and easier for firms to go to capital markets to get funds.[24] Using junk bonds to finance mergers was an innovation of the 1980s. The growth of large institutions with big investments in individual firms has forced managers to pay more attention to investors.

This vision of competing corporate governance mechanisms is a tempting explanation, but it is also one that relies on loose, albeit plausible, connections among a lot of different events rather than on formal empirical tests. Before accepting this explanation, most economists would insist on more concrete evidence.

Managers and Stockholders Don't Always Agree. Although the evidence doesn't provide strong support for the view that the conglomerate merger wave was driven by managers' interests alone, there is growing evidence that managers and stockholders often don't see eye to eye on the benefits of diversification.[25]

Perhaps the most convincing evidence for conflict between managers and stockholders has been assembled by Berger and Ofek (1997), who compare a sample of firms that refocused between 1983 and 1994 to another group of otherwise similar diversified firms. Firms that refo-

[21]This hypothesis was initially posed by Ravenscraft and Scherer.

[22]Julia Porter Liebeskind, Tim Opler, and Donald Hatfield's study found a modest increase in concentration, but it was the result of exit by small firms and the internal growth of existing firms. They define industries at the four-digit SIC level.

[23]See Amar Bhide's article.

[24]Shelf registration allows firms to issue securities multiple times, without having to undergo the entire battery of reporting and registration requirements imposed by the SEC for a new issue.

[25]Note, the diversification discount doesn't, by itself, prove that diversified firms are being held together over stockholders' opposition. For example, managers and stockholders might agree that an increase in focus would raise profits, but not enough to outweigh the costs of reallocating assets through sale, spinoff, or merger.

cused were much more likely to have replaced their management during the preceding year—evidence that stockholders intervened not only to increase firm focus but also to replace the management identified with the firm's prior strategy. Firms that refocused were also much more likely to have introduced a stock option compensation scheme for managers. Often, such schemes are intended to motivate managers to make decisions in stockholders' interests. Thus, refocusing is often undertaken as part of a strategy to make stockholders' interests paramount. In general, Berger and Ofek's evidence paints a picture in which firms undertake a strategy of increasing firm focus mainly when stockholders are successful in exerting more control.

Other studies have shown that if a firm's ownership structure promotes stockholders' interests first and foremost, the firm is also more likely to be focused.[26] Firms with higher managerial stock holdings are typically more focused, perhaps because higher stock holdings give managers financial incentives more like those of stockholders. In addition, firms with large outside investors—that is, investors not closely allied with top management—are more likely to be focused. Large outside investors can exercise more influence over a firm's policy than can small investors, and they can exercise this influence on behalf of stockholders if they are independent of top management.

CONCLUSION

Nonfinancial firms have become more focused since the 1980s. This shift reversed the previous postwar trend of increasing diversification, which culminated in the conglomerate merger wave of the 1960s and early 1970s. Financial market participants now reward focus and penalize diversification by paying lower stock prices for diversified firms, the so-called diversification discount. This pattern of rewards and penalties appears to be more than a whimsical choice by stockholders, since studies suggest that diversification often hurts a firm's performance. While the costs of diversification remain somewhat mysterious, recent empirical evidence points to inefficient investment decisions by diversified firms. In particular, there is evidence that diversified firms tend to prop up poorly performing divisions by transferring resources from more profitable divisions.

In light of the evidence from nonfinancial markets, investors may be skeptical about claims of large benefits from diversification by financial firms, especially if firms diversify very far afield from their core businesses. They should be particularly skeptical of the claim that diversified financial firms are best capable of responding quickly to shifting market conditions, that is, that resources can be more easily shifted from declining to promising markets within a diversified firm than through the marketplace. In fact, preliminary evidence points to problems in shifting resources toward their most profitable use as the most likely culprit behind the diversification discount.

Recent evidence from nonfinancial markets may also provide policymakers with hints about how markets will evolve over time if financial firms can offer a wider range of products and services. The evidence does *not* support the view that giant, diversified financial and commercial conglomerates are a necessary outcome of product deregulation. Financial firms free to choose their mix of products are unlikely to obey regulatory boundaries drawn in the first half of the 20th century, but product deregulation may still ultimately lead to markets composed of specialized financial firms. Evidence from nonfinancial markets says there are limits to profitable product diversification, and market participants have increasingly pressed firms to recognize these limits.

[26]The evidence in this paragraph is from the articles by Berger and Ofek (1996), and David Denis, Diane Denis, and Atulya Sarin (1997).

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