A Reexamination of the Conglomerate Merger Wave in the 1960s: An Internal Capital Markets View

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ABSTRACT

One possible explanation for bidding firms earning positive abnormal returns in diversifying acquisitions in the 1960s is that internal capital markets were expected to overcome the information deficiencies of the less-developed capital markets. Examining 392 bidder firms during the 1960s, we find the highest bidder returns when financially "unconstrained" buyers acquire "constrained" targets. This result holds while controlling for merger terms and for different proxies used to classify firms facing costly external financing. We also find that bidders generally retain target management, suggesting that management may have provided company-specific operational information, while the bidder provided capital-budgeting expertise.

THE ABNORMAL RETURNS BY BIDDING FIRMS in the 1960s on acquisition announcements suggests that (contrary to the post-1980 era[1]) the market rewarded diversification in the 1960s. For example, Schipper and Thompson (1983) find significant positive abnormal performance associated with the announcement of acquisition programs by diversified firms. Elgers and Clark (1980)

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[1] In the post-1980 period, diversified firms had lower Tobin's q values than a comparable portfolio of stand-alone firms (Lang and Stulz (1994)), a lower imputed stand-alone value of assets, sales, and earnings than a portfolio of stand-alone firms (Berger and Ofek (1995)), and a lower level of total factor productivity (Lichtenberg (1992)). Comment and Jarrell (1995) and Liebeskind and Opler (1993) document a return to firm focus and specialization in the 1980s, whereas Morck, Shleifer, and Vishny (1990), and Sicherman and Pettway (1987) find that diversifying bidders earned lower abnormal returns on announcement of an acquisition than bidders making related acquisitions. Further, divesting firms in the 1980s earn positive abnormal returns on announcement of the divestiture (Klein (1986), and Black and Grundfest (1988)), and are more likely to divest unrelated businesses (Kaplan and Weisbach (1992)).

conclude that diversifying mergers as defined by the FTC code[2] earn higher monthly returns than related mergers. In a study more related to this paper, Matsusaka (1993) analyzes the announcement effects of mergers undertaken in the three years of 1968, 1971, and 1974, and finds that diversified bidders earned positive abnormal returns. This paper provides a possible rationale for this conglomeration activity, namely, the drive by merging firms to form their own internal capital markets in the absence of well-developed external capital markets.

The desire by firms to form internal capital markets reflects the idea that managers of a firm have information advantages over the external capital markets (Alchian (1969), Williamson (1970), among others). More recently, Stein (1997) uses a two-tiered agency model—with asymmetric information between divisional managers and headquarters, as well as between headquarters and outside investors—to analyze internal capital markets. In his model, external capital markets place financing constraints on a firm's managers in order to restrict them from overinvesting in large projects that increase their private benefits of control. Internal capital markets can be efficient by allowing headquarters to allocate funds to the divisions with the best investment opportunities. Matsusaka and Nanda (1996) suggest similarly that in the presence of significant external financing costs, a multidivisional firm owns a valuable real option in allocating capital across divisions because it allows the firm to avoid external capital markets more often. Matsusaka (1997) argues that diversifying into new industries can be optimal when managers face uncertain matches between their present organizational capabilities and those of the target firms.

Although these theoretical research programs have contributed rationales for diversification, empirical researchers have examined the interdependence of cash flows and investments between different divisions within the same company. This research generally finds strong support for cross-subsidization of investment among different divisions within the same diversified company. Lamont (1997) finds, for example, that the sharp drop in oil prices in 1986 led diversified oil companies to reduce their investment in their non-oil divisions. Using a much larger sample, Shin and Stulz (1998) conclude that the investment of the smallest division of diversified firms is positively related to the cash flow of the other segments.

These empirical papers define "investment" as capital expenditures made during the year. Given that an acquisition is a major investment for any company, one might expect significant cross-subsidization of investment in

[2] The Federal Trade Commission's (FTC's) *Statistical Report on Mergers and Acquisitions* 1978 classifies mergers according to five types: (1) *horizontal:* the two companies produce one or more of the same, or closely related, products in the same geographic market; (2) *vertical:* the two companies had a potential buyer-seller relationship before the merger; (3) *product extension:* when the two companies are functionally related in type but sell products that do not compete with each other; (4) *market extension:* when the two companies manufacture the same product but sell them in different geographic markets; (5) *other:* the two companies are totally unrelated. The FTC categorizes the first two types as related mergers and the last three types as varying degrees of diversifying mergers.

the decade in which these diversified firms were largely formed. We examine the possibility that internal capital markets were formed in the 1960s to mitigate the information costs associated with the less-well-developed external capital markets of the time.

In the 1960s, external capital markets were less developed in terms of company-specific information production than in later decades. We classify "company-specific information" into two general categories: (1) operating or production information, and (2) financing and budgeting expertise. Specifically, we introduce the second group of information-intensive activities because it assists the manager of a diversified firm to internally allocate capital across divisions. We suggest that diversified firms were perceived ex ante by the external capital markets to have an informational advantage, because external capital markets were less well developed. For example, relative to the current period, there was less access by the public to computers, databases, analyst reports, and other sources of company-specific information; there were fewer large institutional money managers; and the market for risky debt was illiquid. Accordingly, diversified firms were allocators of capital and provided financing expertise to companies whose management they retained for operating expertise. This latter argument was to some extent made by Harold Geneen, Chief Executive Officer of International Telephone and Telegraph Company, a major conglomerate firm in the 1960s, who states: "In picking and choosing what companies to acquire, . . . with our expertise in management and *our access to greater financial resources* add something to that particular company. . . . In most instances, *we kept on the same management* and introduced the company's managers to the ITT system of business plans, detailed budgets, strict financial controls, and face-to-face General Managers Meetings" (emphasis added; Geneen and Moscow (1984, pp. 206–207)).[3]

To study this possibility, we examine a sample of 392 acquisitions that occurred during the period from 1961 through 1970. We define diversifying acquisitions as those in which the bidder and target do not share any two-digit SIC code (see Matsusaka (1993)) and related acquisitions as those in which they do share a two-digit SIC code. Using the *Wall Street Journal* announcement date as our event date, we calculate four measures of abnormal returns to the conglomerate bidding firm. These measures are as follows: (1) the usual "percentage returns" or the cumulative abnormal returns from five days before to five days after the event date; (2) the "percentage returns until date of last revision" or the cumulative abnormal returns from five days before to five days after the date of the last revision (Lang, Stulz, and Walkling (1991)); and (3) the "dollar returns" or the percentage return times the market value of the bidder six days before the announcement (Malatesta (1983); Matsusaka (1993)); and (4) the "investment return" defined as the change in the value of the bidder divided by the purchase price (Morck et al. (1990)). The evidence from these measures is mixed. On the one hand, related

[3] More recently, see Geneen's (1997) discussion of the value of capital-budgeting expertise in conglomerates.

acquisitions show positive abnormal returns for all four measures. On the other hand, diversifying acquisitions also show positive abnormal returns in two of the four measures and do not significantly earn less than related acquisitions in two of the four measures. Therefore our evidence suggests that, contrary to the 1980s, the capital markets believed acquisitions to be generally good for bidder shareholders during the 1960s.

Following both Malatesta (1983) and Matsusaka (1993), who favor the dollar return measure, we focus our analysis of the internal capital market hypothesis on the dollar return measure. The percentage return measure suffers from the problems that common absolute returns to bidders of different sizes are unequal (see Morck et al. (1990) and Matsusaka (1993)) and that it can be a misleading measure of investment performance when computed from samples of successful or unsuccessful mergers (see Malatesta (1983)). The investment returns measure is also problematic because it effectively counts the impact of the acquisition twice—once in the change in the bidder's price captured in the numerator and a second time in the denominator where the acquisition price is used. However, because the dollar return measure can be severely impacted by large bidders, we check the robustness of our results using the investment return measure.

We find that diversifying acquisitions generally earn positive abnormal returns. More important, we find that the highest bidder returns were earned when financially unconstrained buyers acquired constrained target firms. This result holds even when we control for the terms of the merger and for different proxies used to classify financial constraints (dividend payout and capital expenditure rates). We also find that bidders generally retain target management, suggesting that management may have provided company-specific operational information, and that the bidder also provided capital budgeting expertise. These results show that the external capital markets expected information benefits from the formation of the internal capital markets. As the external capital markets developed, this informational advantage likely became less important. These results also could be interpreted against the free cash flow theory, as the external capital markets did not believe that these bidders were expending ex ante valuable free cash flow.

We do not focus on whether the expected gains actually materialized, but rather on whether these expectations were formed in the 1960s by both managers and the stock market. The large body of evidence on stock market responses to the breaking up of diversified firms many years later suggests that expected gains were not realized. Further, we do not address whether diversification was a value-increasing phenomenon—for which we would examine the combined excess returns of both acquiring and target firms. Rather, we examine whether managers of bidding firms maximize their shareholder wealth when conducting acquisitions—that is, whether they were expected to create value by the external capital markets in the 1960s.

In contrast to the papers that examine the abnormal returns to bidding firms, Servaes (1996) finds that diversified firms traded at a discount, or a lower Tobin's q, to a similar (that is, industry-adjusted) portfolio of single-

segment firms. Some other studies using the same methodology but examining finer segment-level data (rather than company-level data) are at odds with the results of Servaes. For example, Klein (1997) examines a small sample of conglomerate acquirers and finds that these firms traded at a premium when compared to a similar portfolio of single-segment firms in the mid-1960s. We examine the 1995 COMPUSTAT business segment file and match the diversified firm (i.e., firms with two to 10 business segments) and the single-segment firm according to three-digit SIC codes. We find that single-segment firms are much smaller in sales and assets (mean and median) than the segments of firms with two to 10 segments, and this difference is strongly statistically significant. Moreover, even among single-segment firms, q is negatively related to size (with a t-statistic of -4.03). Based on this preliminary analysis, comparing the q of diversified firms and a similar portfolio of single-segment firms may incorporate variations related to large differences in asset size (and maybe differences in firm age) between the two groups of firms. Moreover, consistent with the model of Matsusaka (1997) and the empirical evidence of Lang and Stulz (1994) and Hyland (1996), conglomerate firms may have had lower q values for reasons other than diversification; such a result is not inconsistent with the idea that, in the 1960s, the market thought diversification was valuable on the margin.

This paper is organized as follows. In Section I, we describe our data and our sample construction. In Section II, we describe in detail the internal capital market hypothesis and our proxy variables. Section III presents our empirical tests and results. Section IV concludes.

I. Data

We selected our sample of mergers occurring between 1961 to 1970 from the Federal Trade Commission's (FTC's) *Statistical Report on Mergers and Acquisitions: 1978*. Rather than using the ad hoc classification scheme employed by the *Report*, we obtained the four-digit SIC code of both bidding and target firms from different issues of the Standard and Poor's *Register of Corporations, Directors and Executives*. These SIC codes are for the year prior to the merger. We define a "related acquisition" as occurring when the bidder and target share a two-digit SIC code; we define a "diversifying acquisition" as occurring when the bidder and target do not share any two-digit SIC code (see Matsusaka (1993)). Mergers are included in the sample if they satisfy the following criteria: (1) they are listed as a merger in the FTC's *Statistical Report on Mergers and Acquisitions*; (2) the merger is also announced in *The Wall Street Journal*, allowing us to determine the day the information was received by financial market participants; (3) CUSIP numbers are available on the acquirer firms from either CRSP or COMPUSTAT; (4) daily return data are available on the acquirer firm from CRSP (many firms did not have any return data available during the 1960s, reducing the sample significantly); and (5) the Standard and Poor's *Register* has the four-digit SIC codes for acquirer and target firms.

Table I
Sample Description

Number of firms for which we found the merger announcement date from *The Wall Street Journal*, four-digit SIC codes from Standard and Poor's *Register*, and CUSIP numbers from 1973 COMPUSTAT	458
Number of firms with no stock return data available in CRSP from 1955 to 1972	9
Number of firms with multiple acquisitions during the event window and with no daily stock return data available in CRSP during the one-year estimation period of [−539, −300] from *The Wall Street Journal* announcement date of 0	53
Number of firms with fewer than 10 observations in the daily stock return data available in CRSP during the one-year estimation period of [−539, −300] from *The Wall Street Journal* announcement date of 0	4
Total number of firms for which abnormal returns are calculated	392

Many firms did not have their four-digit SIC codes listed in the *Register*. If the acquiring or the target firm is a holding company (SIC code of 6711), we drop the merger from the sample. For 458 firms we found the merger announcement date from *The Wall Street Journal*, four-digit SIC codes from the *Register*, and CUSIP numbers from the 1973 COMPUSTAT. We were forced to delete 66 firms because of lack of adequate stock return data, resulting in the final sample of 392 mergers that took place from 1961 to 1970. A complete description of the sample and the reasons for deleting a subsample are given in Table I. All firm-specific accounting data are obtained from COMPUSTAT and from the yearly issues of Moody's *Industrial Manual*.

We gleaned terms of the merger from different issues of *The Wall Street Journal*. We define relevant terms using the following dummy variables: a dummy variable equals unity if the takeover involves a tender offer (and zero otherwise); a dummy variable equals unity if *The Wall Street Journal* suggests that the management did not support the intended acquisition (and zero otherwise); a dummy variable equals unity if there is more than one bidder (and zero otherwise); a dummy variable equals unity if the medium payment is cash only; a dummy variable equals unity if the medium of payment is the exchange of stock only; and the last two dummy variables are set equal to zero if the medium of payment is a combination of cash and stock. In Table II, we describe some salient characteristics of the firms involved in the mergers. On average, acquirers appear to have a higher value of Tobin's q and higher market capitalizations than target firms. We find that few acquisitions include multiple bidders and hostile takeovers. Tender offers account for about 20 percent of the sample, and the medium of payment is largely an exchange of stock.

Table II

Sample Characteristics of Firms Involved in Mergers

Sample characteristics of 392 firms involved in mergers during the period 1961 to 1970. q is the Tobin's q value in the year before the merger announcement date in *The Wall Street Journal*, and is calculated as the book value of assets minus the book value of equity plus the market value of equity divided by the book value of assets (Smith and Watts (1992)). The market value of equity is in units of millions of dollars and is calculated as the stock price times the number of shares outstanding in the year before the merger announcement date in *The Wall Street Journal*. All financial data are from the 1973 COMPUSTAT and from yearly issues of Moody's *Industrial Manual*. All terms of the merger are from *The Wall Street Journal*. Both dummy variables for the medium of payment are set to zero if the medium of payment is a combination of cash and stock.

	Mean	Standard Deviation	Number of Firms
Acquiring firm's q	1.83	1.20	266
Target firm's q	1.35	0.85	208
Acquiring firm's market value of equity	709.52	1563.47	300
Target firm's market value of equity	81.71	198.94	219
Dummy = 1 if the merger contest involves more than one bidder	0.05	0.21	389
Dummy = 1 if the merger involves a tender offer	0.19	0.39	372
Dummy = 1 if the merger is hostile	0.02	0.13	389
Dummy = 1 if the medium of payment is cash	0.08	0.27	392
Dummy = 1 if the medium of payment is stock	0.85	0.36	392

II. The Internal Capital Market Hypothesis

The potential for an efficiency-enhancing role for internal capital markets in the capital allocation process was initially described by Alchian (1969) and Williamson (1970), who suggest that the managers of a firm have information and monitoring advantages that the external capital markets do not possess. Consequently, firms could reallocate resources more efficiently because of greater and cheaper information. These ideas have been refined more rigorously by Gertner, Scharfstein, and Stein (1994) and by Stein (1997). Gertner et al. suggest that internal capital markets differ from external capital markets (such as bank loans) because the internal markets provide the senior managers (i.e., headquarters) with the residual rights of control over the firm's assets. These control rights provide the firm's senior managers with increased monitoring incentives as they get more gains from monitoring. Stein extends this argument to the case in which headquarters faces costly external finance arising from an additional agency problem between itself and external capital markets. When both headquarters and project managers derive private benefits that increase with the resources under their control, less-informed external markets place binding credit con-

straints to curtail these agents from overinvestment. Internal capital markets in Stein create value by "picking winners"—that is, shifting resources across projects.[4]

Therefore, an informed internal capital market potentially generates value when the costs of asymmetric information are severe. Accordingly, one would expect higher firm value when the informational advantage of the internal capital market over the external capital market is greater. One might argue that the 1960s was such a time period. In the 1960s, external capital markets were less developed in terms of information production and distribution than in later decades. Moreover, illiquidity in markets for risky debt made raising large amounts of borrowed funds for corporate acquisitions difficult and there were fewer large institutional shareholders (see Shleifer and Vishny (1986) for such shareholders' role in firm value maximization). Given that the information costs in external capital markets were arguably high, one would expect firms with information problems to relax their financing constraints and to access bidding firms for capital. Accordingly, firms with high information costs would be acquired by bidding firms and an effective internal capital market formed, which was expected to increase firm value.

Both Gertner et al. (1994) and Stein (1997) show that internal capital markets can improve efficiency, though for different reasons. Gertner et al. show that internal capital markets can create value because the poorly performing assets of one project can be more efficiently redeployed by combining them with the better performing assets of another project. Stein shows that internal capital markets can increase value when headquarters has correlated (or zero) evaluation errors across different projects or if diversification makes project outcomes less correlated. Li and Li (1996) suggest that higher levels of debt should be used as a bonding device to curb the tendency of the diversified firm's managers to maximize empire-building rents. Fluck and Lynch (1996) suggest that conglomerate mergers take place so that the marginally profitable short-horizon projects (which cannot obtain financing as a stand-alone firm) can obtain financing and survive distress. When firms face positive deadweight external financing costs, Matsusaka and Nanda (1996) suggest that diversification can be value-enhancing because such a strategy allows firms to avoid external financing in more states of the world.[5] In this setting, a firm refocuses when external markets become more efficient or when competition in its product market increases. Relating this model to our hypothesis, in the 1960s one might expect that the cost of external financing was much higher due to the lack of well-developed capital market institutions that have an expertise in gathering company-specific information.

[4] Unlike corporate headquarters, a bank cannot sanction "losers"; that is, it cannot proscribe divisions from taking their internal resources to another lender for a better deal.

[5] Bhide (1990) suggests that the more sophisticated external capital markets in the 1980s have reduced the need for firms to diversify internally in order to improve capital allocation. Thus managers in the 1960s may have been expected to be able to allocate resources more effectively in unrelated projects than external markets could.

The empirical evidence shows strong differences in investment policies between divisions within a firm and a single-division firm (see Lamont (1997), Lang, Ofek, and Stulz (1996), and Shin and Stulz (1998)). More specifically, divisions within firms are involved in investment cross-subsidization, where investment is defined as capital expenditures incurred during the year. In this paper, we examine a form of cross-subsidization that occurs when a financially unconstrained bidding firm takes over a financially constrained target firm and consequently forms an internal capital market. We examine whether the external capital markets expected that the formation of internal capital markets in the 1960s were value-maximizing for the bidding firm. Again, existing research has argued that internal capital markets can be value-enhancing. Further, as often argued by leading conglomerate practitioners (see, e.g., Geneen (1997)), the financing and budgeting expertise that a firm possesses is not necessarily related to its degree of diversification. Accordingly, we test the internal capital market hypothesis for all acquisitions.

Following Fazzari, Hubbard, and Petersen (1988),[6] we examine a priori financially unconstrained bidder firms that take over target firms facing costly external financing to form an internal capital market. In order to identify financially unconstrained firms and firms that face costly external financing, we use the firms' dividend payout ratios and their investment rates. The dividend payout ratio is the average two-year dividend payout ratio in the year before the announcement date. A firm's investment rate is the dollar value of capital expenditure in the year before the announcement date divided by the dollar value of property, plant, and equipment at the beginning of that year.

We create four dummy variables for each of these variables: (1) The first dummy variable equals unity if the bidder's dividend payout is higher than the median dividend payout of all bidders *and* the target's dividend payout is higher than the median dividend payout of all targets, and zero otherwise. (2) The second dummy variable equals unity if the bidder's dividend payout is higher than the median payout of all bidders and the target's dividend payout is lower than the median payout of all targets, and zero otherwise. (3) The third dummy variable equals unity if the bidder's dividend payout is lower than the median dividend payout of all bidders and the target's dividend payout is higher than the median dividend payout of all targets, and zero otherwise. (4) The fourth dummy variable equals unity if the bidder's dividend payout is lower than the median dividend payout of all bidders and the target's dividend payout is lower than the median dividend payout of all targets, and zero otherwise. We define similar dummy variables for the investment rate. The internal capital market hypothesis suggests that financially unconstrained bidder firms benefit from acquiring a "constrained" target firm, so that there should be a positive relationship between the second dummy variable and bidder returns. Further, financially constrained bidder firms might benefit from acquiring an unconstrained target firm, suggest-

[6] See also the review of related studies in Hubbard (1998).

ing a positive relationship between the third dummy variable and bidder returns. The first and fourth dummy variables should not be related to bidder returns under the internal capital market hypothesis.

III. Empirical Tests and Results

We begin by conducting an event study using the first announcement date of the merger in *The Wall Street Journal* as our relevant event date. We calculate four measures of abnormal returns to the diversified bidding firm. The first measure is the usual "percentage returns," as in Dodd and Warner (1983)—the cumulative abnormal returns from five days before to five days after the event date. The estimation period is the one-year estimation period of $[-539, -300]$ before *The Wall Street Journal*'s announcement. If there are fewer than 10 observations in the daily stock return data available in CRSP during the one-year estimation period, we drop the firm from the sample. Hence we calculate the 11-day cumulative abnormal returns $[-5, +5]$ using the CRSP value-weighted market index as our market portfolio.[7] We then calculate the "percentage returns until date of last revision" or the cumulative abnormal returns from five days before to five days after the date of last revision (Lang et al. (1991)); the "dollar return" or the percentage return times the market value of the bidder six days before the announcement (Malatesta (1983); Matsusaka(1993)); and the "investment return" defined as the change in the value of the bidder divided by the purchase price (Morck et al. (1990)).

As in Matsusaka (1993) we define "related acquisitions" as occurring when the bidder and target share a two-digit SIC code, and "diversifying acquisitions" as occurring when the bidder and target do not share a two-digit SIC code. The results showing the four measures of abnormal returns are given in Table III. In Panel A we create portfolios of related and diversifying acquisitions for which we calculate the mean abnormal returns. Our four measures of abnormal returns all indicate that related acquisitions earn positive abnormal returns. Additionally, two of the four measures show statistically significant abnormal returns for diversifying acquisitions; and two of the four measures find that related acquisitions earn significantly more than diversifying acquisitions. To ensure that our results are not driven by a few outliers, we also provide median values for each measure of abnormal returns. A similar pattern prevails, suggesting no significant impact of outliers. Accordingly, the evidence is mixed about the ex ante value of diversification, but shows generally that the external capital markets believed acquisitions to be generally good for bidder shareholders during the 1960s. In Panel B we

[7] Specifically, we sum over the prediction errors in order to average out the nonsystematic factors not related to the merger announcement such that the 11-day cumulative abnormal return for the event window is $\mathrm{CAR}[-5,+5] = \Sigma_{t=-5}^{+5}\bar{A}_t$, where $\bar{A}_t = (1/N)\Sigma_{i=1}^{N}A_{it}$ and $A_{it} = R_{it} - \alpha_i - \beta_i R_{mt}$. The standardized prediction error is given by $\mathrm{SPE}_{it} = A_{it}/S_{it}$, where $S_{it} = [s_i^2\{1 + 1/100 + ((R_{mt} - \bar{R}_{mt})^2/(\Sigma_{t=-105}^{-6}(R_{mt} - \bar{R}_{mt})^2)\}]^{1/2}$, and the residual return variance is s_i^2. The test statistic for the 11-day cumulative return is unit normal and is $Z = \bar{W}_i\sqrt{N}$, where $\bar{W}_i = (1/N)\Sigma_{i=1}^{N}W_i$ and $W_i = \Sigma_{t=-5}^{+5}\mathrm{SPE}_{it}(1/\sqrt{11})$.

Table III

Bidder Abnormal Returns and Diversification (and Terms of the Takeover)

Bidder abnormal returns are calculated around the announcement date in *The Wall Street Journal* using four different measures. In (1), we compute the standard abnormal return measure defined as the 11-day cumulative market model prediction error from five days before the announcement date to five days after the announcement date. In (2), we use the bidder's abnormal returns defined from five days before the announcement date to five days after the date of last revision (Lang et al. (1991)). In (3), we compute the dollar abnormal returns earned by the bidder in the five days before the announcement date to the five days after the announcement date (Malatesta (1983), Matsusaka (1993)). In (4), we use the Morck et al. (1990) abnormal return measure defined as the change in the bidder's equity value from five days before to five days after the date of last bid deflated by the dollar acquisition price. A related (diversifying) acquisition occurs when the bidder and target firms share (do not share) a two-digit SIC code (Matsusaka (1993)). In Panel A, mean and median abnormal returns for portfolios of related or diversifying acquisitions are presented. In Panel B, we present results from regressing abnormal returns on a dummy variable that equals unity for related acquisitions, and zero otherwise, while controlling for the different terms of the merger. The SIC codes are from Standard and Poor's *Register* in the year before the announcement date in *The Wall Street Journal*. Both dummy variables for the medium of payment are set to zero if the medium of payment is a combination of cash and stock. The logarithmic difference in target and bidder asset sizes is in the year before the announcement date. For each specification, the first number is the estimated parameter and the number in parentheses is the associated *t*-statistic. For the median abnormal returns in Panel A, a rank test is used.

Panel A: Abnormal Returns

	Related		Diversifying		*t*-Statistic for Equality of Mean Abnormal Returns
	Mean	Median	Mean	Median	
(1) Standard percentage abnormal returns	1.62[a] (4.84)	1.18[a]	0.24 (0.28)	0.21[a]	1.500
(2) Percentage abnormal returns using the date of last revision	0.42[b] (2.40)	0.01	−0.02 (−0.74)	0.00	2.485[b]
(3) Dollar abnormal returns	12.44[a] (9.27)	11.65[a]	8.06[c] (1.77)	7.32[b]	0.923
(4) Dollar abnormal returns using date of last bid deflated by the acquisition price	0.06[a] (7.33)	0.04[a]	0.03[c] (7.28)	0.04[a]	3.273[a]

Panel B: Regressions of Abnormal Returns

	(1)	(2)	(3)	(4)
Constant	0.021 (0.51)	−0.255[a] (−2.86)	−15.18 (−1.02)	−0.371 (−0.93)
Dummy = 1 if related acquisition	0.037[b] (2.42)	0.052[c] (1.72)	11.72[b] (2.06)	0.038 (0.23)
Dummy = 1 if more than one bidder	−0.000 (−0.01)	−0.002 (−0.03)	1.185 (0.10)	0.367 (1.04)
Dummy = 1 if tender offer	0.036[b] (1.81)	−0.007 (−0.15)	19.57[b] (2.61)	−0.081 (−0.33)
Dummy = 1 if hostile acquisition	0.018 (0.36)	−0.059 (−0.51)	25.773 (1.36)	0.134 (0.30)
Dummy = 1 if the medium of payment is cash	−0.024 (−0.58)	0.236[b] (2.53)	−5.826 (−0.37)	0.371 (0.80)
Dummy = 1 if the medium of payment is stock	−0.028 (−0.78)	0.207[a] (2.57)	5.748 (0.43)	0.402 (1.01)
Log (target's assets/ bidder's assets)	0.002 (0.40)	−0.007 (−0.51)	−2.536 (−1.12)	–
R^2	0.028	0.019	0.050	0.001

[a,b,c] Statistically significant at the 1, 5, and 10 percent levels, respectively.

report results from regressing each abnormal return measure on related versus diversifying acquisitions, while controlling for the terms and characteristics of the takeover. Similar to Panel A, we find that related acquisitions earn higher abnormal returns than diversifying acquisitions when we control for the terms of the merger.

To examine the internal capital market hypothesis, we classify our bidder and target firms by the four dummy variables using the firm's dividend payout ratios. We then regress the dollar return measure on these dummy variables, the results of which are given in the first column of Table IV. Consistent with the internal capital market hypothesis, we estimate that the second dummy variable is positive and statistically significantly related to the bidder returns. We also estimate a positive coefficient for the third dummy variable, but it is statistically insignificant. This test offers preliminary evidence that targets arguably facing costly external financing when taken over by unconstrained bidders generate high bidder returns. By contrast, we find no evidence of higher bidder returns when unconstrained targets are acquired by "constrained" bidders (using our measure). In alternative specifications we examine whether our results are affected by including the various terms of the merger described in Table II and a proxy for the "bootstrapping" explanation popular among practitioners.

Some practitioners appear to believe that, in the 1960s, firms with a high price-earnings ratio (P/E) took over low P/E target firms and fooled the stock market with an increased combined earnings-per-share. A simple example illustrates this "bootstrapping" explanation. Consider an acquiring firm A taking over a target firm T. Let each firm have earnings and shares outstanding of one million. Firm A has a market price of $30 and firm T has a market price of $10. Accordingly, firm A has a P/E of 30 and firm T has a P/E of 10. The terms of the acquisition are three shares of firm A for one share of firm T, thereby increasing firm A's shares to 1.334 million. The new earnings-per-share number would consequently be 1.5. The market inefficiently still gives firm A the same P/E multiple that it had before the acquisition, namely 30, resulting in firm A's new stock price of 45. Accordingly, we create a dummy variable that equals the value of unity if the bidder's price-earnings ratio is greater than the target's price-earnings ratio (and equals zero otherwise); in the bootstrapping explanation, the variable should be positively related to bidder returns.

When we include the terms of a merger, we estimate that the coefficient for the pairing of a liquidity-rich acquirer and a liquidity-poor target (i.e., the second dummy variable) remains positively and statistically significantly related to bidder returns. The only merger-specific variable whose estimated coefficient is statistically significantly different from zero is the dummy variable for whether the merger involves a tender offer. We find no evidence in support of the bootstrapping hypothesis, as the coefficient on the dummy variable (though positive) is not statistically different from zero. This result is consistent with Matsusaka (1993), who also finds no evidence for bootstrapping. Because the dollar return measure can be impacted by

Table IV

Cross-Sectional Regression of Bidder Dollar Abnormal Returns on Dividend Payouts

Bidder returns are calculated around the announcement date in *The Wall Street Journal*, and are defined as the dollar abnormal returns earned by the bidder in the five days before the announcement date to the five days after the announcement date. In the first two specifications, bidder returns are defined as dollar returns (Malatesta (1983), Matsusaka (1993)); in the next two specifications, bidder returns are defined as investment returns (Morck et al. (1990)). The regressions have no intercept. For each specification, the first number is the estimated parameter and the number in parentheses is the associated *t*-statistic.

	(1)	(2)	(3)	(4)
Dummy = 1 if the bidder's dividend payout is higher than the median of all bidders and the target's dividend payout is higher than the median of all targets	11.12 (1.59)	17.57 (0.45)	0.191 (0.32)	0.140 (0.07)
Dummy = 1 if the bidder's dividend payout is higher than the median of all bidders and the target's dividend payout is lower than the median of all targets	15.84[b] (1.93)	18.58[b] (2.17)	1.602[a] (2.80)	1.879[a] (2.73)
Dummy = 1 if the bidder's dividend payout is lower than the median of all bidders and the target's dividend payout is higher than the median of all targets	3.776 (0.49)	2.717 (0.48)	0.442 (0.66)	1.004 (0.48)
Dummy = 1 if the bidder's dividend payout is lower than the median of all bidders and the target's dividend payout is lower than the median of all targets	−4.581 (−0.58)	−1.836 (−0.06)	0.037 (0.07)	−0.089 (−0.05)
Dummy = 1 if the merger contest involves more than one bidder	–	−8.565 (−0.34)	–	−0.789 (−0.40)
Dummy = 1 if the merger involves a tender offer	–	37.54[a] (2.97)	–	2.620[a] (2.97)
Dummy = 1 if the merger is hostile	–	−0.002 (−0.03)	–	−0.002 (−0.04)
Dummy = 1 if the medium of payment is cash	–	−3.447 (−0.85)	–	−3.189 (−1.24)
Dummy = 1 if the medium of payment is stock	–	−8.909 (−0.26)	–	−0.350 (−0.18)
Dummy = 1 if the bidder's price-earnings ratio is greater than the target's price-earnings ratio	–	3.501 (0.30)	–	−0.694 (−0.74)
R^2	0.011	0.086	0.040	0.180

[a,b,c] Statistically significant at the 1, 5, and 10 percent levels, respectively.

bidders of large size, we reestimate the first two specifications using the investment return measure of Morck et al. (1990); results are presented in columns (3) and (4) of Table IV. The estimated coefficient for the pairing of a liquidity-rich acquirer and a liquidity-poor target is again positive and

statistically significantly related to bidder returns, both when we exclude and include the terms of the merger and the bootstrapping dummy. The estimated coefficient for the pairing of a liquidity-poor acquirer and a liquidity-rich target remains statistically insignificantly different from zero. These results support the basic internal capital market hypothesis, as described by unconstrained bidders taking over constrained target firms.

To check the robustness of our results, we recreate the four dummy variables using the firm's investment rate instead of the dividend payout ratio. In particular, the first dummy variable equals unity when both the bidder and target firm's investment rate is greater that their respective median investment rates, and zero otherwise; the second dummy variable equals unity if the bidder's investment rate is higher than the median investment rates of all bidders and the target's investment rate is lower than the median investment rate of all targets, and zero otherwise; the third dummy variable equals unity if the bidder's investment rate is lower than the median investment rate of all bidders and the target's investment rate is higher than the median investment rate of all targets, and zero otherwise; and the fourth dummy variable equals unity if the bidder's investment rate is lower than the median investment rate of all bidders and the target's investment rate is lower than the median investment rate of all targets, and zero otherwise. Results from regressing the bidder returns on these new dummy variables are given in Table V. The dollar return measure shows the coefficients on the pairing of a high-investment acquirer and a low-investment target, and the pairing of a low-investment acquirer and a high-investment target, to be positively related to the bidder's returns. However, when we include the terms of the merger and the bootstrapping variable, the estimated coefficient for the pairing of a low-investment acquirer and a high-investment target loses its statistical significance. The percentage return measure also shows that the dummy variable for the pairing of a high-investment acquirer and a low-investment target is positively related to the bidder returns, confirming the results we obtained from the tests using the dividend payout ratio. The estimated coefficient for the bootstrapping variable remains insignificantly different from zero for both abnormal return measures. Taken together with the results obtained using the dividend payout proxy for financing constraints, these results consistently show higher bidder returns when "unconstrained" bidders take over "constrained" target firms.

However, this association might also plausibly be attributed to two other explanations. First, these acquisitions may have been disciplinary, if, for example, the target firm's management was subsequently removed by the bidders (see Barber, Palmer, and Wallace (1995)). Second, it is possible that high-q firms take over low-q firms (as in Lang, Stulz, and Walkling (1989)). We investigate these possibilities below.

In order to examine the disciplinary motive, we create two variables analogous to the managerial retention variable defined by Matsusaka (1993). Matsusaka concludes that both related and diversifying mergers retain target management after the merger, with related mergers retaining a greater

Table V

Cross-Sectional Regression of Bidder Dollar Abnormal Returns on Capital Investment Rates

Bidder returns are calculated around the announcement date in *The Wall Street Journal*, and are defined as the dollar abnormal returns earned by the bidder in the five days before the announcement date to the five days after the announcement date. In the first two specifications, bidder returns are defined as dollar returns (Malatesta (1983), Matsusaka (1993)); in the next two specifications, bidder returns are defined as investment returns (Morck et al. (1990)). The regressions have no intercept. For each specification, the first number is the estimated parameter and the number in parentheses is the associated *t*-statistic.

	(1)	(2)	(3)	(4)
Dummy = 1 if the bidder's investment rate is higher than the median of all bidders and the target's investment rate is higher than the median of all targets	6.760 (0.55)	−3.815 (−0.45)	0.625 (1.61)	−0.196 (−0.28)
Dummy = 1 if the bidder's investment rate is higher than the median of all bidders and the target's investment rate is lower than the median of all targets	26.94[b] (2.12)	12.26[c] (1.70)	0.953[c] (1.92)	1.001[c] (1.88)
Dummy = 1 if the bidder's investment rate is lower than the median of all bidders and the target's investment rate is higher than the median of all targets	25.21[b] (2.15)	−0.527 (−0.06)	0.484 (1.52)	0.530 (0.84)
Dummy = 1 if the bidder's investment rate is lower than the median of all bidders and the target's investment rate is lower than the median of all targets	0.878 (0.07)	21.53 (1.04)	0.087 (0.19)	0.692 (0.71)
Dummy = 1 if the merger contest involves more than one bidder	–	−26.68 (−0.98)	–	−0.827 (−0.37)
Dummy = 1 if the merger involves a tender offer	–	54.95[a] (3.82)	–	4.215[a] (3.66)
Dummy = 1 if the merger is hostile	–	−0.001 (−0.01)	–	−0.002 (−0.02)
Dummy = 1 if the medium of payment is cash	–	−3.998 (−0.98)	–	−3.954 (−1.08)
Dummy = 1 if the medium of payment is stock	–	−1.656 (−0.01)	–	−0.258 (−0.00)
Dummy = 1 if the bidder's price-earnings ratio is greater than the target's price-earnings ratio	–	−0.405 (−0.03)	–	−0.528 (−0.46)
R^2	0.002	0.169	0.001	0.196

[a,b,c] Statistically significant at the 1, 5, and 10 percent levels, respectively.

proportion of target management. The high retention rates lead him to suggest that these mergers were not carried out to discipline or remove target managers (as suggested by Barber et al. (1995)). To examine whether top managers were retained or removed, we create two variables that equal unity

if the bidder retains the target firm's management (and equal zero otherwise). In the first variable, we classify top management of the target firm to be retained if *The Wall Street Journal* reported that target firm's management would be retained, or if any of the top three executives in the target firm is an officer in the acquiring firm in the three years after the merger (according to Standard and Poor's *Register of Corporations, Directors and Executives* or Dun and Bradstreet's *Million Dollar Directory)*. We do not include in this definition managers of target firms who are kept solely as directors of the merged firm, as this nonoperational designation seems to be generally used as a token reward for selling the target firm. Additionally, following Matsusaka, we examine an alternative measure wherein the target managers who have stayed on as directors are also classified as retained managers.[8]

Our results are similar to those of Matsusaka. Our sample mergers experience a high average retention rate (0.75 for the first variable and 0.78 for the second variable, respectively). These high estimated retention rates suggest that removing managers from target firms in order to discipline them was not a primary reason for high bidder returns. We also calculate the average retention rates in our unconstrained bidder and constrained target sample. Because the average retention rate is 0.86 in this subsample, higher bidder returns there do not appear to be related to gains from disciplining existing management. Within this sample, we also regress the bidder returns on the managerial retention variables and find no effect.

We also examine whether our results in the unconstrained bidder and constrained target subsample simply reflect a pattern of high-q bidders taking over low-q target firms. The mean target q in our subsample of unconstrained bidders and constrained targets is 1.25, which is not statistically significantly different from the mean target q of 1.36 for the rest of the sample.[9] Similarly, the mean bidder q is 1.97, which is not statistically significantly different from the mean bidder q of 1.82 for the rest of the sample. We also construct four dummy variables that proxy for the four classes of mergers: (1) mergers with a high bidder q and a high target q, (2) those with a high bidder q and a low target q, (3) those with a low bidder q and a high target q, and (4) those with a low bidder q and a low target q. In one specification, we define high (and low) q firms as those for which q is greater than (less than) unity. In the second specification, we define firms to be high (and low) q when their q is greater than (less than) the median q value for

[8] Both managerial retention variables are affected by the relative size of the merging firms. If the target firm is too small for its management to be listed in the parent company's divisions (according to the *Register* or the *Million Dollar Directory)*, we would inadvertently list them as disciplined even though the management was retained. In any case, the relative size effect understates retention and would bias our results against retention.

[9] We also perform the same analysis to check whether the financially constrained target firms are simply fast-growing target firms in terms of sales. We find no statistically significant difference in the four-year sales growth rates between these firms and all target firms that are not classified as financially constrained (the t-statistic is 0.92).

bidder and target firms, respectively. We then regress our measures of abnormal returns on these dummy variables. No specification obtains a coefficient for the high-q bidder/low-q target dummy that is statistically significantly different from zero. These tests suggest that our internal capital market variables are not simply different proxies for mergers where a high-q bidder takes over a low-q target.[10]

Having determined that the internal capital market results are not driven by disciplinary motives or by patterns in q-ratios, we split our sample into bidders making diversifying acquisitions and bidders making related acquisitions. This decomposition allows us to isolate the impact of the internal capital market hypothesis on diversifying acquisitions per se, the results of which are given in Table VI. In Panels A and B of the table, we reestimate regressions using both the dividend payout and capital investment rates. In specifications (1) and (3), we use the dollar return measure, and in specifications (2) and (4), we use the investment return measure. Panel A presents the results for diversifying acquisitions. We find in all four specifications that the only statistically significant variable is the pairing of a liquidity-rich acquirer and a liquidity-poor target. This suggests that financially constrained targets taken over by unconstrained bidders generate higher bidder returns in diversifying acquisitions. In Panel B we present the results for related acquisitions. Here, we find the dummy variable for the pairing of a liquidity-rich acquirer and a liquidity-poor target to be also statistically significant in three out of four specifications. In Panel C, we calculate dollar abnormal returns on four portfolios; in addition to splitting our sample into diversifying-related acquisitions we also split our sample into mergers that involve the pairing of a financially constrained target and a financially unconstrained bidder, and other mergers. Consistent with our regression results, we find that both diversifying and related mergers earn positive abnormal returns (when a financially unconstrained bidder acquires a financially constrained target). The evidence is mixed as to whether related acquisitions actually earned higher returns than diversifying acquisitions.[11]

To summarize, our results suggest that financially unconstrained bidders acquiring target firms facing costly external financing generate higher bidder returns in diversifying and related acquisitions, consistent with the internal capital market hypothesis. Further, among the 229 diversifying acquisitions, we find that 67 acquisitions (29.26 percent) involve the pairing of a liquidity-rich acquirer and a liquidity-poor target (using the dividend payout dummy variable). Among the 163 related acquisitions, we find that 21 acquisitions (12.88 percent) involve the pairing of a liquidity-rich acquirer and a liquidity-poor target (again using the dividend payout dummy variable). Accordingly, we find some evidence that diversifying acquisitions involve more of a pairing of a liquidity-rich acquirer and a liquidity-poor target firm.

[10] We also repeat the specifications of Tables IV and V including the q-dummies, and we find no qualitative change in our results.

[11] The results are qualitatively similar when we use the other abnormal return measures.

Table VI

Cross-Sectional Regressions and Portfolio Returns for Bidders Making Diversifying and Related Acquisitions

Bidder returns are calculated around the announcement date in *The Wall Street Journal*, and are defined as the dollar abnormal returns earned by the bidder in the five days before the announcement date to the five days after the announcement date. For Panels A and B, bidder returns are defined in specifications (1) and (3) as dollar returns (Malatesta (1983), Matsusaka (1993)), and in specifications (2) and (4) as investment returns (Morck et al. (1990)). The regressions have no intercept. For each specification, the first number is the estimated parameter and the number in parentheses is the associated *t*-statistic. In Panel C, we calculate dollar abnormal returns on four portfolios: diversifying acquisitions and the pairing of a financially constrained target and a financially unconstrained bidder, diversifying acquisitions and other mergers, related acquisitions and the pairing of a financially constrained target and a financially unconstrained bidder, related acquisitions and other mergers.

	Dividend Payout		Investment Rates	
	(1)	(2)	(3)	(4)
Panel A: Regressions for Diversifying Acquisitions				
Dummy = 1 if the bidder's dividend payout (investment rate) is higher than the median of all bidders and the target's dividend payout (investment rate) is higher than the median of all targets	16.46 (1.60)	0.417 (1.06)	0.639 (0.04)	−0.151 (0.351)
Dummy = 1 if the bidder's dividend payout (investment rate) is higher than the median of all bidders and the target's dividend payout (investment rate) is lower than the median of all targets	27.74[a] (2.80)	1.346[b] (2.21)	67.48[a] (3.33)	1.280[b] (2.22)
Dummy = 1 if the bidder's dividend payout (investment rate) is lower than the median of all bidders and the target's dividend payout (investment rate) is higher than the median of all targets	7.095 (1.04)	0.084 (0.40)	−0.151 (−0.01)	0.068 (0.18)
Dummy = 1 if the bidder's dividend payout (investment rate) is lower than the median of all bidders and the target's dividend payout (investment rate) is lower than the median of all targets	−9.332 (−1.09)	−0.070 (−0.29)	−9.67 (−0.57)	0.001 (0.00)
R^2	0.072	0.041	0.080	0.050
Panel B: Regressions for Related Acquisitions				
Dummy = 1 if the bidder's dividend payout (investment rate) is higher than the median of all bidders and the target's dividend payout (investment rate) is higher than the median of all targets	2.364 (0.79)	−0.322 (−0.10)	−18.50 (−0.33)	0.460 (1.10)
Dummy = 1 if the bidder's dividend payout (investment rate) is higher than the median of all bidders and the target's dividend payout (investment rate) is lower than the median of all targets	40.29[b] (2.27)	1.816[a] (2.63)	−12.46 (−0.69)	0.680[b] (2.06)

Table VI—*Continued*

	Dividend Payout		Investment Rates	
	(1)	(2)	(3)	(4)
Panel B: Regressions for Related Acquisitions				
Dummy = 1 if the bidder's dividend payout (investment rate) is lower than the median of all bidders and the target's dividend payout (investment rate) is higher than the median of all targets	7.101 (0.91)	0.605 (0.85)	1.075 (0.03)	0.372 (1.03)
Dummy = 1 if the bidder's dividend payout (investment rate) is lower than the median of all bidders and the target's dividend payout (investment rate) is lower than the median of all targets	0.763 (0.06)	0.208 (0.19)	11.907 (0.64)	0.155 (0.22)
R^2	0.029	0.027	-0.004	0.003
Panel C: Portfolio Returns				
	Dividend Payout		Investment Rates	
	Diversifying	Related	Diversifying	Related
Acquisitions where the bidder's dividend payout (investment rate) is higher than the median of all bidders and the target's dividend payout (investment rate) is lower than the median of all targets	27.74[a] (2.80)	40.29[a] (2.26)	67.48[a] (3.34)	−12.46 (−0.69)
All other acquisitions	−0.081 (−0.21)	6.051 (1.34)	3.895 (0.73)	14.240[c] (1.72)
Difference in portfolio returns	27.82[a] (2.81)	34.24[b] (1.86)	63.59[a] (3.04)	−26.70 (−1.34)

[a,b,c] Statistically significant at the 1, 5, and 10 percent levels, respectively.

IV. Conclusions

Much of the research on firm-level diversification in the 1960s has shown that bidder firms receive positive abnormal returns. We confirm those results, and offer an explanation. Specifically, we find evidence that firms merged to form their own internal capital markets in the absence of informationally well-developed external capital markets. In this explanation, some firms were perceived to have an information advantage over the external capital markets, and were therefore expected to create value in an internal capital market. Because diversified acquisitions were rewarded by financial markets in the 1960s, the informational advantage that acquiring firms appear to possess was likely to be in the capital budgeting and allocation process as well as in the operational aspects of each division. Bidder firms generally kept the target management in order to run the operational part of each target firm.

We understand that classifying "constrained" and "unconstrained" firms robustly is always a difficult problem. In this paper we document that positive abnormal returns are generated when financially constrained target firms (identified as firms with a low dividend payout or a low investment rate) are acquired by high-dividend payout or high-investment firms. This pattern is not explained by high-q firms acquiring low-q firms. In order to classify more robustly whether firms are "constrained" or "unconstrained," one might use the "fundamental q" approach (see the description in Hubbard (1998) and Abel and Blanchard (1986)) or an Euler equation (see Whited (1992) and Hubbard, Kashyap, and Whited (1995)). Such tests, however, demand more data (in particular, a long time-series for each firm) than we have collected in this historical setting.

In future research we plan to explore more deeply the informational advantages that firms initially have over capital markets in early and middle stages of financial development (see also Subrahmanyam and Titman (1999)). As many emerging markets develop, large diversified firms (which are usually affiliated into a group or into a large family concern) may use their capital to help finance target companies. This rationale is suggested, for example, by Khanna and Palepu (1997) in explaining the existence of large diversified conglomerates in India. As capital markets develop in emerging markets, many firms can provide company-specific information to the capital markets directly, and more easily bypass firm internal capital markets for investment funds. Additionally, one can examine whether managers of bidding firms use their private information before the announced acquisition and buy shares in their own firm.[12] We also intend to extend our analysis to study market reactions to internal capital markets during the 1980s. The models of Gertner et al. (1994), Matsusaka and Nanda (1996), and Stein (1997) offer rich possibilities for examining market reactions to acquisitions in environments of varying degrees of informational frictions in external and internal markets.

REFERENCES

Abel, Andrew, and Olivier J. Blanchard, 1986, The present value of profits and cyclical movements in investments, *Econometrica* 54, 249–273.

Alchian, Armen, 1969, Corporate management and property rights; in Henry Manne, ed.: *Economic Policy and the Regulation of Corporate Securities* (American Enterprise Institute, Washington, D.C.).

Barber, Brad M., Donald Palmer, and James Wallace, 1995, Determinants of conglomerate and predatory acquisitions: Evidence from the 1960s, *Journal of Corporate Finance* 1, 283–318.

Berger, Phillip, and Eli Ofek, 1995, Diversification's effect on firm value, *Journal of Financial Economics* 37, 39–65.

[12] See Hubbard and Palia (1995) for evidence of a nonmonotonic relationship in a sample of industrial mergers, and Cornett et. al. (1997) for evidence of a monotonic relationship in a sample of bank mergers.

Bhide, Amar, 1990, Reversing corporate diversification, *Journal of Applied Corporate Finance* 5, 70–81.

Black, Bernard, and Joseph A. Grundfest, 1988, Shareholder gains from takeovers and restructuring between 1981 and 1986, *Journal of Applied Corporate Finance* 1, 6–15.

Comment, Robert, and Gregg A. Jarrell, 1995, Corporate focus and stock returns, *Journal of Financial Economics* 37, 67–87.

Cornett, Marcia M., Gayane Hovakimian, Darius Palia, and Hassan Tehranian, 1998, The impact of the manager-shareholder conflict on acquiring bank returns, Working paper, Boston College.

Dodd, Peter, and Jerold B. Warner, 1983, On corporate governance: A study of proxy contests, *Journal of Financial Economics* 11, 401–438.

Elgers, Pieter T., and John J. Clark, 1980, Merger types and shareholder returns: Additional evidence, *Financial Management* 9, 66–72.

Fazzari, Steven M., R. Glenn Hubbard, and Bruce C. Petersen, 1988, Financing constraints and corporate investment, *Brookings Papers on Economic Activity* 1, 141–195.

Fluck, Zsuzsanna, and Anthony Lynch, 1996, Why do firms merge and then divest: A theory of financial synergy, Working paper, New York University.

Geneen, Harold, 1997, *The Synergy Myth: The Former Chairman of ITT Debunks Downsizing, Reengineering, Bureaucracy, and Corporate Culture* (St. Martin's, New York).

Geneen, Harold, and Alvin Moscow, 1984, *Managing* (Doubleday, New York).

Gertner, Robert H., David S. Scharfstein, and Jeremy C. Stein, 1994, Internal versus external capital markets, *Quarterly Journal of Economics* 109, 1211–1230.

Hubbard, R. Glenn, 1998, Capital-market imperfections and investment, *Journal of Economic Literature* 36, 193–225.

Hubbard, R. Glenn, Anil K. Kashyap, and Toni M. Whited, 1995, Internal finance and firm investment, *Journal of Money, Credit, and Banking* 27, 683–701.

Hubbard, R. Glenn, and Darius Palia, 1995, Benefits of control, managerial ownership, and the stock returns of acquiring firms, *RAND Journal of Economics* 26, 782–792.

Hyland, David C., 1996, Why firms diversify? An empirical examination, Working paper, Ohio State University.

Kaplan, Steven N., and Michael S. Weisbach, 1992, The success of acquisitions: Evidence from divestitures, *Journal of Finance* 47, 107–138.

Khanna, Tarun, and Krishna G. Palepu, 1997, Why focused strategies may be wrong for emerging markets, *Harvard Business Review*, July–August, 41–51.

Klein, April, 1986, The timing and substance of divestiture announcements: Individual, simultaneous and cumulative effects, *Journal of Finance* 41, 685–697.

Klein, Peter G., 1997, Were the conglomerates inefficient? A reconsideration, Working paper, University of Georgia.

Lamont, Owen, 1997, Cash flow and investment: Evidence from internal capital markets, *Journal of Finance* 52, 83–109.

Lang, Larry H. P., Eli Ofek, and René M. Stulz, 1996, Leverage, investment, and firm growth, *Journal of Financial Economics* 40, 3–29.

Lang, Larry H. P., and René M. Stulz, 1994, Tobin's q, corporate diversification and firm performance, *Journal of Political Economy* 102, 1248–1280.

Lang, Larry H. P., René M. Stulz, and Ralph A. Walkling, 1989, Managerial performance, Tobin's q, and the gains from successful tender offers, *Journal of Financial Economics* 24, 137–154.

Lang, Larry H. P., René M. Stulz, and Ralph A. Walkling, 1991, A test of the free cash flow hypothesis, *Journal of Financial Economics* 29, 315–335.

Li, David D., and Shan Li, 1996, A theory of corporate scope and financial structure, *Journal of Finance* 51, 691–709.

Lichtenberg, Frank, 1992, Industrial de-diversification and its consequences for productivity, *Journal of Economic Behavior and Organization* 18, 427–438.

Liebeskind, Julia, and Tim Opler, 1992, The causes of corporate refocusing, Working paper, Ohio State University.

Malatesta, Paul H., 1983, The wealth effect of merger activity and the objective functions of merged firms, *Journal of Financial Economics* 11, 155–181.

Matsusaka, John G., 1993, Takeover motives during the conglomerate merger wave, *RAND Journal of Economics* 24, 357–379.

Matsusaka, John G., 1997, Corporate diversification, value maximization, and organizational capabilities, Working paper, University of Southern California.

Matsusaka, John G., and Vikram Nanda, 1996, Internal capital markets and corporate refocusing, Working paper, University of Southern California.

Morck, Randall, Andrei Shleifer, and Robert W. Vishny, 1990, Do managerial objectives drive bad acquisitions?, *Journal of Finance* 45, 31–48.

Schipper, Katherine, and Rex Thompson, 1983, Evidence on the capitalized value of merger activity for merging firms, *Journal of Financial Economics* 11, 85–119.

Servaes, Henri, 1996, The value of diversification during the conglomerate merger wave, *Journal of Finance* 51, 1201–1225.

Shin, Hyun-Han, and René M. Stulz, 1998, Are internal capital markets efficient? *Quarterly Journal of Economics* 113, 531–552.

Shleifer, Andrei, and Robert W. Vishny, 1986, Large shareholders and corporate control, *Journal of Political Economy* 94, 461–488.

Sicherman, Neil W., and Richard H. Pettway, 1987, Acquisition of divested assets and shareholders' wealth, *Journal of Finance* 42, 1261–1273.

Smith, Clifford W., Jr., and Ross L. Watts, 1992, The investment opportunity set and corporate financing, dividend, and compensation policies, *Journal of Financial Economics* 32, 263–292.

Stein, Jeremy C., 1997, Internal capital markets and the competition for corporate resources, *Journal of Finance* 52, 111–133.

Subrahmanyam, Avanidhar, and Sheridan Titman, 1999, The going public decision and the development of financial markets, *Journal of Finance* 54, 1045–1082.

Whited, Toni M., 1992, Debt, liquidity constraints, and corporate investment: Evidence from panel data, *Journal of Finance* 47, 1425–1460.

Williamson, Oliver E., 1970, *Corporate Control and Business Behavior* (Prentice-Hall, New Jersey).