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Methods of Payment in Asset Sales: Contracting with Equity versus Cash

MYRON B. SLOVIN, MARIE E. SUSHKA, and JOHN A. POLONCHEK*

ABSTRACT

We analyze intercorporate asset sales where equity is the means of payment, and compare the results to cash asset sales. Equity deals are value-enhancing for both buyers, 10%, and sellers, 3%, while cash sales generate seller returns of 1.9% and buyer returns that are not significant. Combined wealth gains are large for equity deals, but modest for cash deals. Equity-based asset sales are not a precursor to consolidations between buyers and sellers, and do not affect buyer openness to the takeover market. We conclude that the use of buyer equity conveys favorable information about the value of assets and buyers.

A WELL-ACCEPTED TENET OF CORPORATE FINANCE THEORY and empirical research is that the issuance of equity reduces firm value. In this paper, we present evidence that challenges this widely held view about equity. Losses in firm value have been documented when equity is used as a means of payment for corporate transactions such as mergers and takeovers, as well as for seasoned equity offerings for corporate financing. Such negative effects on firm value are consistent with the theoretical work of Myers and Majluf (1984), which implies that within an asymmetric information framework, there is an adverse selection problem intrinsic to equity issuance. Our evidence about the favorable effects of equity is in the context of intercorporate asset sales.

There are no theoretical models that focus explicitly on corporate asset sales. Instead, these transactions are typically viewed as a component of the broader merger and takeover literature, which concludes that, on average, targets of acquisitions sustain large wealth gains, acquirers gain little or no value, and the use of buyer equity as the means of payment is an unfavorable signal of value. Previous studies of asset sales document significant gains to sellers and few, if any, gains to buyers, but there has been no treatment of the effects of the means of payment. Our analysis focuses on the use of buyer equity as the means of payment in intercorporate asset sales, and we compare the results to cash asset sales. Our central finding is that the use of buyer equity to purchase operating assets generates significantly larger combined gains in wealth than

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cash asset sales, and that these gains are shared between buyers and sellers. In contrast, in cash asset sales, all of the proportionately smaller gains go to sellers.

When a buyer uses equity to purchase an asset, the value of the payment is affected by the market's assessment of the impact of the transaction on buyer value. We find that these transactions, which we denote as asset for equity sales, generate large and significant increases in firm value of about 10% for buyers and 3% for sellers. By comparison, cash asset sales generate nonsignificant returns to buyers and significant returns of 1.9% to sellers. Moreover, gains in wealth to asset for equity sales are significantly greater relative to transaction size than gains to cash asset sales. This pattern of gains to asset for equity sales is in contrast to results in the literature for mergers and takeovers of public firms in which equity is an unfavorable signal of buyer value. Moreover, for events in which equity payments to sellers constitute less than 5% of buyer outstanding shares, the average excess return to buyers is large, 9%, and statistically significant. This result suggests that it is the use of equity as a means of payment, and not simply the formation of a corporate blockholding, that is an important factor enhancing buyer value.

We examine subsequent operating performance and the status of the equity blocks created by these transactions, and find results that reinforce the conclusion that the use of equity is an important factor in enhancing shareholder wealth. There are modest, positive changes in buyer operating performance relative to benchmark firms after asset for equity sales, whereas operating performance after cash asset sales does not differ from benchmark firms. An asset for equity sale is not the precursor to a consolidation between the buyer and seller, and the proportion of buyers subsequently acquired by third parties matches that of benchmark firms. Thus, an asset for equity sale neither hinders nor enhances buyer openness to the corporate control market, and buyer gains do not reflect an expectation that the transaction is a catalyst for future control changes. For one-quarter of the events, the seller eventually eliminates its block of buyer shares. At these announcements, buyer returns are negative but not significant.

Overall, our results imply that buyer equity is an effective means of contracting in intercorporate asset sales. We suggest that an asset for equity sale should be viewed as the outgrowth of an implicit auction in which the market interprets the seller's decision to sell an operating asset for buyer equity, instead of cash, as a positive signal about the value of both the relevant asset and the buyer.

The paper is organized as follows. In Section I, we discuss hypotheses and previous research that are relevant background for the issues we investigate. In Section II, we describe sample development and methodology. In Section III, we report event study evidence, cross-sectional regressions, operating performance, and data relating to the subsequent status of the equity blocks. Section IV contains conclusions.

I. Testable Theories for Cash Asset Sales Versus Asset for Equity Sales

Prior research suggests the potential for differential valuation effects between equity-based and cash asset sales. Evidence from acquisitions of public companies (Asquith, Bruner, and Mullins (1983), Travlos (1987), Franks, Harris, and Mayer (1988), and Servaes (1991)) suggests that the use of buyer equity as the means of payment has a deleterious effect on acquirer value, a result typically ascribed to asymmetric information (Myers and Majluf (1984)). Empirical work on asset sales (Klein (1986), Hite, Owers, and Rogers (1987), and Lang, Poulsen, and Stulz (1995)) reports that sellers earn statistically significant gains, while buyer returns are small and not statistically significant. Researchers offer differing explanations for the increase in seller value, but conclude that the market for divested operations is highly competitive, so it is difficult for buyers to obtain abnormal returns. Previous studies of asset sales do not assess the implications of alternative means of payment.

In an asset for equity sale, the seller does not retain any residual interest in the divested asset, but instead, definitively sells the asset in return for an equity interest in the buyer. Thus, both parties, acting pursuant to the business judgment rule, agree to establish the seller as a corporate blockholder in the buyer, an action that can affect managerial incentives for value creation. We suggest that an asset for equity sale can be viewed as the outcome of an implicit or informal auction in which the seller's acceptance of buyer equity, rather than cash, and its willingness to become a blockholder signal private information about the value of the divested asset and the buyer.

In the Myers and Majluf (1984) model, managers are better informed about firm value than outside investors, and have an incentive to issue equity when their private information indicates that firm shares are overvalued. The Berkovitch and Narayanan (1989) asymmetric information model implies that low-valued acquirers signal their quality through equity offers. Empirical studies report evidence that financial market participants recognize this incentive, and reduce acquirer value at news of acquisitions of public firms in which buyer equity is the means of payment (Travlos (1987), Asquith et al. (1983), Franks et al. (1988), and Servaes (1991)). This research suggests that buyers utilizing equity to acquire an asset should also sustain unfavorable announcement returns relative to buyers utilizing cash.

In Hansen's (1987) model of mergers, the acquirer and target each have asymmetric information about the value of their own firm, and the acquirer chooses the medium of exchange. Undervalued acquirers are likely to offer cash, while overvalued acquirers are likely to offer equity, and thus equity may be a negative signal of value. However, target managers with favorable private information about their firm and its expected productivity when combined with the acquirer may prefer payment in acquirer equity to capture part of the increase in acquirer value that they anticipate will ensue when future cash flows are revealed to the market. In this case, target shareholders absorb part of any overpayment by the acquirer, and bear post-acquisition revaluation risk about

acquirer value. In contrast, in a cash deal, the acquirer bears the entire cost of any overpayment and target shareholders do not incur any risk about acquirer value. Thus, the use of equity as the means of payment need not be an unfavorable signal of value.

We hypothesize that selling-firm managers with favorable information about the asset to be sold and with expectations of synergies when the asset is combined with the buyer's assets may prefer payment in the form of buyer equity. From this perspective, an asset for equity sale could generate more favorable returns than a cash sale. An equity-based sale has a common valuation dimension for the buyer and seller, such that both parties gain from actions that increase buyer share price and both are harmed by actions that reduce it. The decision to accept an equity-based bid for an asset exposes the seller to risks about buyer valuation and ex post performance, and thus could be a positive signal about the value of the asset and the buyer. Given the complexity of developing a formal theoretical model that combines an asymmetric information framework with a competitive asset auction and that encompasses alternative means of payment, we leave this task to a separate exercise. However, we hypothesize that the willingness of selling firms to accept buyer equity rather than cash as the outcome of an implicit auction of an asset should influence returns to sellers and buyers and could counter the Myers and Majluf (1984) adverse selection problem associated with equity. Thus, an asset for equity sale could enhance shareholder wealth for buyers as well as sellers.

Intrinsic to an asset for equity sale is the formation of a corporate blockholding in the buyer firm. There is an ongoing debate in the finance literature as to whether blockholders enhance value for dispersed shareholders because of their monitoring activities, or reduce value by fostering managerial entrenchment or curtailing managerial initiative and discretion. Thus, this literature offers alternative predictions about the market valuation effects of asset for equity sales relative to cash asset sales.

DeAngelo and Rice (1983), Jensen (1986), Shleifer and Vishny (1989), and Jensen and Murphy (1990) argue that managers are inefficiently disciplined by market forces and pursue actions that do not contribute to shareholder wealth, but instead increase firm size and enhance managerial compensation or prestige. Related hypotheses explain acquisitions on the basis of managerial hubris (Roll (1986)) or diversification of managerial human capital (Amihud and Lev (1981)). From this perspective, an asset for equity sale could place a block of buyer equity in friendly hands, strengthening the prospect that incumbent managers will maintain control. This view implies that such a sale could be a defensive, anti-takeover tactic that fosters managerial entrenchment, thereby generating less value than a cash sale. Some asset for equity sales give the seller representation on the buyer's board of directors, or have a standstill agreement that constrains the seller from acquiring additional buyer equity. Such provisions could signal that the seller is an ally of buyer managers rather than a proactive outside blockholder, and thus reduce firm value. Holmstrom and Tirole (1993) contend that blockholders inhibit information production, reduce stock liquidity, and lessen firm value. Burkart, Gromb, and Panunzi (1997)

argue that managerial discretion encourages firm-specific investment that contributes to firm value, but managers are less likely to show such initiative when there is a potential for expropriation so that a blockholder reduces value. These viewpoints imply that an asset for equity sale should generate a less favorable announcement return for the buyer relative to a cash asset sale because of the corporate blockholding that is created.

Alternatively, Shleifer and Vishny (1986) argue that a blockholder has both an incentive to monitor managerial performance to enhance firm value and a comparative advantage at monitoring relative to dispersed shareholders for whom information acquisition is costly. As a result, a blockholder can deter managerial actions that do not contribute to shareholder value, enhance efficient management of corporate resources, and increase firm value. From this viewpoint, the corporate blockholding formed in an asset for equity sale should have favorable incentive effects and enhance value relative to a cash asset sale.

II. Data and Descriptive Statistics

Several sources are used to obtain a sample of intercorporate sales of operating assets. We examine lists of divestitures for each year from 1982 through 2000 published in the periodical *Mergers and Acquisitions*, and we conduct an online search of asset sale agreements reported on the Dow Jones News Retrieval Service (Factiva) and Lexis-Nexis. For the events in the sample, both the buyer and the seller are corporations, the sale does not entail a change in control of the buyer, and the terms of the transaction are made public. Each asset sale is a voluntary managerial decision and not the result of regulatory or governmental action, the operating asset is wholly owned by the seller, the sale definitively transfers full ownership of the asset to the buyer, and in the case of an equity deal, the seller becomes the holder of a block of common stock in the buyer. Thus, transactions in which a seller retains partial ownership of the asset, a joint venture is formed, or there is an earn-out provision are not in the sample. When a buyer or seller does not have sufficient daily return data on the Center for Research in Security Prices (CRSP) file to conduct an event study analysis, typically because the entity trades on a foreign (usually Canadian) exchange, we retain the party that has sufficient CRSP returns. The sample of cash asset sales consists of 258 sellers and 222 buyers, with 156 events in which both the buyer and the seller are on CRSP. The sample of asset for equity sales consists of 69 sellers and 89 buyers, with 62 events in which both the buyer and the seller are on CRSP. Thus, there is a considerable number of transactions in which both parties trade, which allows us to analyze the combined gains in wealth and their magnitude relative to transaction size. Overall, equity-based transactions comprise about one-quarter of the asset sales.

We obtain ownership data for buyers and sellers from proxy statements reported on Edgar or the SEC file provided by the Q-Data Corporation, and other corporate information is obtained from the *Wall Street Journal*, Standard and Poor's Stock Reports and Directory of Corporations, annual reports, and 8K

filings with the SEC. The announcement date of the event is the initial report in the *Wall Street Journal*.

Descriptive statistics, reported in Table I, indicate that these asset sales are major corporate events. Average (median) transaction price measured in constant (1997) dollars is \$1,089.4 (\$802.1) million for cash transactions, and \$550.0 (\$180.5) million for equity transactions. Thus, asset for equity sales are smaller than cash sales, and the difference in means (and medians) is statistically significant at the 1% level. Buyer and seller mean (median) market capitalization in constant dollars is \$18,310.9 (\$4,824.8) million and \$17,395.8

Table I
Descriptive Statistics

Statistics for means, and medians in parentheses, are reported for buyer and seller firms that engage in asset sales that use buyer equity or cash as the means of payment over the sample period 1982 through 2000 for firms listed on NYSE/ASE/Nasdaq. Statistical significance for the difference between cash versus equity transactions is obtained by the Satterthwaite test for the difference in means and by the Wilcoxon signed rank test for the difference in medians. Statistical significance is indicated by ** at the 5% level and *** at the 1% level. The value of the transaction is calculated in millions of constant (1997) dollars. Buyer common stock used in payment for the asset is valued at the buyer's share price prior to the announcement of the transaction. Market value is calculated as the number of shares outstanding multiplied by stock price prior to the announcement, and reported in millions of constant dollars. The seller's equity interest in the buyer is the percentage of the buyer's shares outstanding that the seller holds as a result of the transaction. The percentage of payment in equity is the percentage of the transaction price that is paid in the form of buyer common stock. Insider ownership is the percentage of outstanding shares held by all officers and members of the firm's board of directors. Institutional ownership is defined as the percentage of outstanding shares held by investment companies, banks, insurance companies, college endowments, and 13F money managers.

	Buyers		Sellers	
	Equity Sales <i>N</i> = 89 Mean (Median) (1)	Cash Sales <i>N</i> = 222 Mean (Median) (2)	Equity Sales <i>N</i> = 69 Mean (Median) (3)	Cash Sales <i>N</i> = 258 Mean (Median) (4)
Value of the transaction (\$1997, millions)	429.2*** (81.4)***	1,132.5*** (835.3)***	550.0*** (180.5)***	1,089.4*** (802.1)***
Market value (\$1997, millions)	2,132.2*** (206.5)***	18,310.9*** (4,824.8)***	27,090.1 (1,974.3)***	17,395.8 (5,108.7)***
Value of transaction/market value (%)	57.5** (35.6)***	38.8** (16.1)***	26.6 (7.0)**	30.7 (15.5)**
Seller's equity interest in buyer (%)	18.1 (12.5)	—	18.4 (14.2)	—
Percentage of payment in equity (%)	76.2 (100.0)	—	77.1 (100.0)	—
Insider ownership (%)	22.6*** (17.5)***	6.2*** (1.8)***	16.7*** (7.2)***	4.8*** (1.3)***
Institutional ownership (%)	34.4*** (30.5)***	50.7*** (53.0)***	46.2 (51.1)	45.0 (43.7)

(\$5,108.7) million for cash transactions, and \$2,132.2 (\$206.5) million and \$27,090.1 (\$1,974.3) million for equity transactions. Thus, buyers and sellers in cash asset sales are typically large firms, and sellers in equity-based sales are larger than sellers in cash sales. Buyers in asset for equity sales are significantly smaller than buyers in cash transactions.

The mean (median) ratio of transaction price to seller market value is 27% (7%) for equity sales and 31% (16%) for cash sales, and the difference in medians is statistically significant, indicating that the assets divested relative to seller size in equity transactions are smaller than in cash transactions. In contrast, for buyers, the comparable mean (median) ratios are 58% (36%) in equity transactions, and 39% (16%) in cash transactions, with mean (median) differences statistically significant. Since asset for equity sales involve smaller assets and smaller buyers than cash sales, the asset sold is typically larger relative to the buyer's market value than in a cash asset sale. The equity interest the seller receives for the asset represents a considerable proportion of buyer shares outstanding, on average (median) 18.1% (12.5%), indicating that the seller typically becomes a large blockholder in the buyer. More than half of the asset for equity sales are all-equity deals. The mean (median) percentage of payment in the form of buyer equity is 76.2% (100.0%) for the buyer sample, and 77.1% (100.0%) for the seller sample.

Both buyers and sellers in asset for equity deals have pre-transaction ownership structures that are significantly more concentrated than firms in cash asset sales. Mean (median) insider ownership by top executives and members of the board of directors is 22.6% (17.5%) for buyers and 16.7% (7.2%) for sellers in equity-based deals, and is significantly greater than the insider ownership of 6.2% (1.8%) for buyers and 4.8% (1.3%) for sellers in cash deals. As a benchmark, Morck, Shleifer, and Vishny (1988) report median insider ownership of 3.4% for Fortune 500 companies. The significantly greater insider ownership for buyers in equity deals is contrary to Amihud, Lev, and Travlos's (1990) view that managers with substantial ownership stakes are averse to using equity to finance mergers and acquisitions because of the potential risk of losing control. Mean (median) institutional ownership is 34.4% (30.5%) for buyers and 46.2% (51.1%) for sellers for asset for equity sales, and is significantly less than the 50.7% (53.0%) for buyers and 45.0% (43.7%) for sellers in cash deals.¹ These data are similar to the mean of 37.6% for institutional holdings at listed firms reported by McConnell and Servaes (1990). There is a wide range of industries found in each sample, with 62 different four-digit SIC codes among the 89 buyers, and 63 different four-digit SIC codes among the 69 sellers in the equity sample. For the cash sample, there are 108 different four-digit SIC codes among the 222 buyers, and 104 different four-digit SIC codes among the 258 sellers.

¹ Institutional ownership is defined as shares held by investment companies, banks, insurance companies, college endowments, and 13F money managers.

III. Empirical Results

A. Valuation Effects for Buyers and Sellers

In Table II, using event study methodology, we report excess returns at initial announcements of intercorporate asset sales. For cash transactions, the 2-day average excess return for sellers is 1.89% (t -statistic of 11.42), with 62% positive returns. This seller return is similar to asset sale results reported by Klein (1986), Hite et al. (1987), Lang et al. (1995), and John and Ofek (1995), and suggests that cash asset sales are positive net present value transactions for sellers. Buyer returns are negative but not significant, -0.30% (t -statistic of -0.68), with 49% positive returns, results similar to prior studies that suggest that the market for divested operations is highly competitive, making it difficult for buyers to earn abnormal returns.

Although our results for sellers are consistent with prior research that concludes that asset sales increase economic efficiency by reallocating operating assets to more productive uses, we find that the overall gains in value generated by cash transactions are modest, based on two salient metrics not calculated in prior studies. First, we calculate the market's estimate of the average combined gain in shareholder wealth for events in which both firms have CRSP returns, by weighting buyer and seller excess returns by their pre-event market values. The mean (median) combined return is 0.21% (0.13%), indicating only small increases in overall value. Second, to take account of transaction size, we calculate the average of the ratio of the gains in combined market value to transaction price. The mean (median) gain in combined market value as a percentage of transaction price is 5.56% (2.80%). Thus, on average, for cash asset sales, there is only a modest increase in value relative to asset size, and the gains in wealth accrue solely to sellers.

For asset for equity sales, the 2-day average excess return for sellers is 3.17% (t -statistic of 5.90), with 67% positive returns. This return suggests that asset for equity sales are also positive net present value transactions for selling firms. Although this average excess return exceeds the return to sellers in cash sales, the difference-in-means calculated t -value of 1.14 is not statistically significant. However, since the ratio of the size of the divested asset to seller market value in asset for equity transactions is less, on average, than that for cash transactions, the return to sellers in equity-based deals represents a larger gain relative to transaction size than cash asset sales. The average gain in seller market value as a percentage of the transaction price for the divested asset is 172.51% in asset for equity sales, whereas the average seller gain relative to the transaction price is 8.19% for cash asset sales. The difference in these seller gains is significant at the 5% level, given a calculated t -value of 2.32. Thus, asset for equity transactions generate significantly larger gains to sellers per dollar of assets divested than cash asset sales.

The 2-day average excess return to buyers in asset for equity sales is a positive 9.77% (t -statistic of 16.22), with 80% positive returns. This return is significantly greater than the return to buyers in cash sales, given a difference-in-means calculated t -value of 5.92. Moreover, the return to buyers in asset for

Table II
Excess Returns for Buyers and Sellers at Asset Sales

Two-day $(-1, 0)$ average excess returns in percentage at announcements of asset sales over the period 1982 through 2000 for buyer and seller firms listed on NYSE/ASE/Nasdaq, using market model methodology; t -statistics are in parentheses, proportion of returns positive is in brackets, and N is the sample size. The statistical significance of the proportion positive is based on the Wilcoxon signed rank test. Statistical significance is indicated by * at the 10% level, ** at the 5% level, and *** at the 1% level. Day 0 is the date of the first announcement in the *Wall Street Journal*. Market model parameters are estimated using least squares over the pre-event period, $t = -160$ to -41 . Results are reported for the full sample of listed buyers and sellers, and asset for equity sales are also disaggregated into various ranges of the ownership (B) of the seller in the buyer as a result of the transaction.

Full Sample		Size of Block in Asset for Equity Sales				
Equity Sales	Cash Sales	B < 5% (1)	5% ≤ B < 10% (2)	10% ≤ B < 20% (3)	20% ≤ B < 30% (4)	30% ≤ B (5)
Buyers						
9.77% (16.22)*** [0.80]*** N = 89	-0.30% (-0.68) [0.49] N = 222	8.81% (7.18)*** [0.79]*** N = 19	9.02% (7.46)*** [0.93]*** N = 14	12.56% (8.71)*** [0.77]*** N = 22	10.32% (5.53)*** [0.85]*** N = 13	7.88% (7.68)*** [0.71]** N = 21
Sellers						
3.17% (5.90)*** [0.67]*** N = 69	1.89% (11.42)*** [0.62]*** N = 258	3.72% (3.95)*** [0.75]** N = 16	2.34% (1.60) [0.75] N = 8	1.45% (0.80) [0.62] N = 16	7.21% (5.43)*** [0.71]* N = 14	1.08% (1.35) [0.53] N = 15

equity sales is considerably greater than the negative returns of -1% to -3% to acquirers reported in studies of mergers in which acquirer equity is the means of payment (Travlos (1987), Asquith et al. (1983), Franks et al. (1988), and Servaes (1991)). We conclude that the financial market interprets the outcome of an implicit auction of an operating asset in which buyer equity is the means of payment as a positive signal about the value of the asset and the value of the buyer. Thus, buyer equity is not the deleterious signal of value that it is in mergers and takeovers of public companies.

The positive and significant return to buyers indicates that the large gains to sellers per dollar of assets sold in asset for equity sales relative to cash sales do not represent a redistribution of wealth from buyers. Positive buyer returns are also not consistent with agency explanations for buyer overbidding that are used to explain negative returns to buyers in mergers and takeovers (Roll (1986) and Shleifer and Vishny (1989)). We conclude that an asset for equity sale generates a significant increase in shareholder wealth for both the buyer and the seller, and contributes to economic value, suggesting that the market expects the transaction to enhance future profitability or strengthen monitoring.

We find that the use of equity as the means of payment in an asset sale generates larger overall gains in value than cash asset sales, based on two metrics. First, the mean combined gain in shareholder wealth, which weights buyer and seller excess returns by their respective market values for transactions in which both firms have CRSP returns, is 3.18% , with 74% positive combined returns. This combined return is significantly greater at the 1% level than the comparable gain of 0.21% for cash asset sales, given a difference-in-means calculated t -value of 2.70 . Second, for equity-based deals, the average gain in combined market value relative to transaction price is 223.40% , in contrast to the 5.56% combined gain for cash asset sales. This difference in gains is statistically significant at the 1% level. The magnitude of the overall gains in wealth in asset for equity sales relative to the value of the assets sold suggests that the use of equity as a means of payment has a positive impact on the change in shareholder wealth associated with an asset sale. Moreover, in equity-based sales, the average gain in buyer market value relative to the transaction price is 50.67% , compared to only 0.57% for buyers in cash sales. The difference in these buyer gains is significant at the 1% level, given a calculated t -value of 3.78 . Of the total increase in shareholder wealth in asset for equity sales, sellers obtain 50.8% of the gains and buyers obtain 49.2% , while effectively all of the wealth gains from cash asset sales accrue to sellers. Thus, there is a distinctive difference in the distribution of gains between sellers and buyers in cash versus equity-based asset sales.

The terms of asset for equity sales incorporate a specified number of buyer shares that are paid to the seller for the operating asset. Thus, the change in the buyer's share price at the sale announcement generates a *pari passu* change in the value of the buyer common stock allocated to the seller. Based on announcement excess returns, the number of shares conveyed, and relevant market values, the implied mean percentage change in seller value that

is due to the change in the price of buyer shares is 1.10%. It can be assumed that the parties to the transaction anticipate a positive reaction to an asset for equity sale. When the gains that sellers obtain on their new holdings of buyer equity are deducted from overall seller returns, the remaining average excess return to sellers is 2.07%, a figure that is close to the average excess return (1.89%) to sellers in cash transactions. Nevertheless, since the average size of the divested assets is significantly smaller in asset for equity sales than in cash sales, even excluding the gains in seller wealth that accrue from the increase in buyer share price, there are still greater gains in wealth to sellers per dollar of assets divested in asset for equity sales than in cash asset sales.

To ascertain whether the size of the seller's block influences the valuation effects of asset for equity sales, we disaggregate the excess returns into ownership ranges. As reported in Table II, there are statistically significant positive excess returns for buyers throughout the ownership ranges. For the set of 19 transactions in which the equity conveyed is less than 5% of the buyer's outstanding shares, there is a significant excess return to buyers of 8.81% (*t*-statistic of 7.18). Thus, even when asset for equity sales do not result in a 5% blockholding, there is a large increase in buyer value, implying that the use of buyer equity rather than the formation of a corporate blockholding is the dominant factor that enhances value.

For blockholdings in the range of 5–10% of buyer shares, the excess return to buyers is 9.02% (*t*-statistic of 7.46), and the return in the 10–20% range is 12.56% (*t*-statistic of 8.71). Above 20%, returns to buyers are still strongly positive but lower than for the 10–20% range. Difference-in-means tests between the various ranges of ownership generate calculated *t*-values that uniformly fall short of statistical significance. However, cross-sectional regression results reported in the next section provide evidence of a nonlinear *ceteris paribus* relationship between blockholding size and excess returns to buyers. For sellers, excess returns are uniformly positive across the various ownership ranges, but are statistically significant in only two ranges, below 5% ownership, 3.72% (*t*-statistic of 3.95), and 20–30% ownership, 7.21% (*t*-statistic of 5.43). However, none of the differences between seller returns based on ownership ranges are statistically significant.

Our tests indicate that there is no significant effect on returns to buyers and sellers from the proportion of the transaction price that is in the form of buyer equity. In Eckbo, Giammarino, and Heinkel's (1990) theoretical model of mergers and takeovers, the proportion of equity used in the transaction affects buyer returns because it conveys private information about firm value, including expected synergies. However, their empirical results, using Canadian merger data, do not support this hypothesis. In Table III, we report statistically significant positive excess returns for all-equity transactions of 10.27% (*t*-statistic of 10.96) for buyers and 4.27% (*t*-statistic of 5.00) for sellers, and returns of 9.20% (*t*-statistic of 12.04) for buyers and 1.81% (*t*-statistic of 3.26) for sellers for transactions that involve equity plus some cash. Difference-in-means calculated *t*-values are not statistically significant.

Table III
Excess Returns for Buyers and Sellers at Asset for Equity Sales Based on Transaction Characteristics

Two-day (-1, 0) average excess returns in percentage for buyers and sellers at announcements of asset for equity sales over the period 1982 through 2000 for firms listed on NYSE/ASE/Nasdaq, using market model methodology; *t*-statistics are in parentheses, proportion of returns positive is in brackets, and *N* is the sample size. The statistical significance of the proportion positive is based on the Wilcoxon signed rank test. Statistical significance is indicated by * at the 10% level, ** at the 5% level, and *** at the 1% level. Day 0 is the date of the first announcement in the *Wall Street Journal*. Market model parameters are estimated using least squares over the pre-event period, *t* = -160 to -41. Results for announcement excess returns are disaggregated on the basis of three reported characteristics of the transactions: whether or not payment is entirely in the form of buyer equity, whether or not the transaction contains a standstill agreement, and whether or not the sale provides for seller representation on the buyer's board of directors.

	Proportion of Equity		Standstill Agreement Provision		Seller Representation on Board	
	All Equity (1)	Mixed (2)	Standstill (3)	No Standstill (4)	Board Representation (5)	No Board Representation (6)
Buyers	10.27% (10.96)*** [0.81]*** <i>N</i> = 47	9.20% (12.04)*** [0.79]*** <i>N</i> = 42	8.19% (8.83)*** [0.75]** <i>N</i> = 12	10.01% (13.96)*** [0.81]*** <i>N</i> = 77	8.51% (10.94)*** [0.79]*** <i>N</i> = 34	10.54% (12.04)*** [0.80]*** <i>N</i> = 55
Sellers	4.27% (5.00)*** [0.66]*** <i>N</i> = 38	1.81% (3.26)*** [0.68]** <i>N</i> = 31	-0.01% (-0.14) [0.56] <i>N</i> = 9	3.64% (6.38)*** [0.68]*** <i>N</i> = 60	1.21% (1.92)* [0.68]** <i>N</i> = 25	4.27% (5.94)*** [0.66]*** <i>N</i> = 44

We test whether asset for equity transactions are a form of anti-takeover defense and an indication of managerial entrenchment by disaggregating the returns based on whether the transaction includes a standstill agreement and whether the seller obtains representation on the buyer's board of directors. In a study of responses to takeover bid activity, Dann and DeAngelo (1983) find that the standstill agreements generate negative returns to target firms. We find average excess returns of 8.19% (*t*-statistic of 8.83) for buyers and -0.01% (*t*-statistic of -0.14) for sellers when there is a standstill agreement, and 10.01% (*t*-statistic of 13.96) for buyers and 3.64% (*t*-statistic 6.38) for sellers when there is no standstill agreement. Difference-in-means calculated *t*-values are low and not statistically significant. For transactions that provide for seller representation on the buyer's board of directors, average excess returns are 8.51% (*t*-statistic of 10.94) for buyers, and 1.21% (*t*-statistic of 1.92) for sellers. For events in which sellers do not receive a board seat, excess returns are 10.54% (*t*-statistic of 12.04) for buyers, and 4.27% (*t*-statistic of 5.94) for sellers. Difference-in-means calculated *t*-statistics are also not statistically significant. Thus, neither standstill agreements nor seller representation on the buyer's board affects gains from asset for equity sales, evidence that is not consistent with managerial entrenchment.

B. Cross-Sectional Regression Analysis

We estimate cross-sectional regressions in which the two dependent variables are the daily excess returns to buyers (Table IV) and to sellers (Table V) in asset for equity sales. Independent variables reflect characteristics of the transactions and participating firms. Multiple regression analysis is used to evaluate the relations among the variables, taking into account continuous variables (namely, transaction size and the blockholding that is formed) that are not readily susceptible to event study analysis.

For buyers, there is a positive and statistically significant relation between excess returns and transaction size, indicating that the greater the relative size of the operating asset being acquired, the greater the excess return for the buyer.

The regression results indicate a nonlinear relation between buyer excess returns and the size of the equity block. We report the results for a cubic specification. If the monitoring associated with a corporate blockholding aligns managerial and shareholder interests at the buyer firm, the *ceteris paribus* effect of an increase in the size of the seller-held block on buyer returns should be positive for a broad range of ownership, since the incentive to monitor increases with the size of the block. The coefficients imply that for low levels of the block size, an increase in the size of the blockholding has a positive effect on buyer excess returns, reaching a local maximum when a 10% interest is conveyed to the seller. After 10%, the incremental effect of an increase in the blockholding is negative, with the effect reaching a minimum at approximately 35%. This pattern is broadly similar to the effect of insider ownership on firm value estimated by Morck et al. (1988). The regression results suggest that, given the

Table IV
**Regression Analysis of Excess Returns for Buyers in Asset
 for Equity Sales**

Cross-sectional regressions are estimated to explain the 2-day $(-1, 0)$ cumulative excess returns from the event study for the full sample of 89 buyers listed on NYSE/ASE/Nasdaq in asset for equity sales for the period 1982 through 2000. The dependent variable is the 2-day $(-1, 0)$ individual excess returns for buyers. Independent variables reflect characteristics of the transactions and participating firms and are defined as follows: Size is the ratio of transaction price of the asset to market value of the buyer plus the amount of the transaction; Block is the percentage ownership of the seller in the buyer as a result of the sale; Insiders is the percentage ownership of the buyer's common stock held by officers and members of the board of directors of the buyer; Blockholders is the percentage ownership of the buyer's common stock held by nonmanagement shareholders who individually own 5% or more of the common stock; Institutions is the percentage ownership of the buyer held by institutions; Standstill takes the value of 1 if the asset sale agreement has a standstill provision and 0 otherwise; Board representation takes the value of 1 if the seller obtains representation on the buyer's board of directors as a result of the asset sale and 0 otherwise; Equity is the proportion of the transaction price that is in the form of buyer equity; Seller vote takes the value of 1 if there is a vote by seller shareholders and 0 otherwise; Buyer vote takes the value of 1 if there is a vote by buyer shareholders and 0 otherwise; Alliance takes the value of 1 if there is a joint venture or alliance between buyer and seller and 0 otherwise; and, Incomplete takes the value of 1 if the asset sale is not completed and 0 otherwise. Statistical significance is indicated by * at the 10% level, ** at the 5% level, and *** at the 1% level.

Equation	(1)	(2)	(3)	(4)	(5)
Size	0.2652 (3.12)***	0.2630 (3.06)***	0.3125 (3.19)***	0.2781 (3.09)***	0.3005 (2.94)***
Block	1.7725 (1.79)*	1.5791 (1.57)	1.8398 (1.82)*	2.0137 (1.99)*	1.8492 (1.70)*
(Block) ²	-11.2883 (-2.29)**	-10.3773 (-2.05)**	-11.8839 (-2.39)**	-12.9262 (-2.55)**	-12.4854 (-2.35)**
(Block) ³	16.2188 (2.41)**	14.9976 (2.18)**	17.3656 (2.55)**	18.8464 (2.72)***	18.6062 (2.57)**
Insiders		0.0211 (0.25)			0.0124 (0.14)
Blockholders		0.0219 (0.21)			0.0320 (0.29)
Institutions		-0.0600 (-0.95)			-0.0436 (-0.66)
Standstill			-0.0124 (-0.24)		-0.0113 (-0.19)
Board representation			-0.0454 (-1.20)		-0.0501 (-1.20)
Equity			0.0454 (0.76)		0.0388 (0.61)
Seller vote				0.0647 (1.40)	0.0402 (0.83)
Buyer vote				0.0068 (0.18)	0.0343 (0.30)
Alliance				0.0214 (0.65)	0.0222 (0.64)
Incomplete				-0.0568 (-1.08)	-0.0421 (-1.20)
Constant	-0.0056 (-0.12)	0.0184 (0.30)	-0.0370 (-0.58)	-0.0313 (-0.61)	-0.0323 (-0.43)
R ²	0.1195	0.1013	0.1174	0.1160	0.0883
F-statistic	3.88***	2.37**	2.62**	2.34**	1.59*

Table V
Regression Analysis of Excess Returns for Sellers in Asset
for Equity Sales

Cross-sectional regressions are estimated to explain the 2-day $(-1, 0)$ cumulative excess returns from the event study for the full sample of 69 sellers listed on NYSE/ASE/Nasdaq in asset for equity sales for the period 1982 through 2000. The dependent variable is defined as the 2-day $(-1, 0)$ individual excess returns for sellers. The independent variables reflect characteristics of the transactions and the participating firms and are defined as follows: Size is the ratio of the transaction price for the asset to the market value of the seller; Block is the percentage ownership of the seller in the buyer as a result of the transaction; Insiders is the percentage ownership of the seller's common stock that is held by all officers and members of the board of directors; Blockholders is the percentage ownership of the seller's common stock held by noninstitutional (nonmanagement) shareholders who individually own 5% or more of the common stock; Institutions is the percentage ownership of the seller held by institutions; Standstill takes on the value of 1 if the asset sale agreement has a standstill provision and 0 otherwise; Board representation takes on the value of 1 if the seller receives representation on the buyer's board of directors as a result of the asset sale and 0 otherwise; Equity is the proportion of the transaction price that is in the form of buyer equity; Seller vote takes on the value of 1 if the asset sale agreement provides for a vote by the shareholders of the seller and 0 otherwise; Buyer vote takes on the value of 1 if the asset sale agreement provides for a vote by the shareholders of the buyer and 0 otherwise; Alliance takes on the value of 1 if there is a joint venture or alliance between the buyer and seller and 0 otherwise; and Incomplete takes on the value of 1 if the asset sale is not completed and 0 otherwise. Statistical significance is indicated by ** at the 5% level and *** at the 1% level.

Equation	(1)	(2)	(3)	(4)	(5)	(6)
Size	0.0984 (3.47)***	0.1033 (3.55)***	0.1085 (3.30)***	0.1003 (3.41)***	0.0708 (2.31)**	0.0820 (2.32)**
Block		-0.0642 (-0.80)				-0.0040 (-0.05)
Insiders			-0.0713 (-1.17)			0.0131 (0.36)
Blockholders			0.0240 (0.21)			-0.0449 (-1.50)
Institutions			0.0021 (0.04)			0.0185 (0.55)
Standstill				0.0080 (0.22)		-0.0565 (-0.95)
Board representation				-0.0398 (-1.50)		-0.0188 (-0.17)
Equity				0.0081 (0.24)		-0.0152 (-0.31)
Seller vote					0.0982 (2.82)***	0.0831 (2.22)**
Buyer vote					0.0023 (0.14)	0.0229 (0.84)
Alliance					0.0218 (1.02)	0.0204 (0.87)
Incomplete					-0.0069 (-0.20)	-0.0140 (-0.39)
Constant	0.0099 (0.74)	0.0204 (1.13)	0.0162 (0.49)	0.0160 (0.56)	-0.0149 (-0.85)	-0.0051 (-0.12)
R^2	0.1555	0.1503	0.1337	0.1535	0.2487	0.2181
F -statistic	12.05***	6.31***	3.32***	3.72***	4.97***	2.52**

relative size of the transaction, the market views an increase in block size as beneficial for buyer value over a limited range of ownership.

Several specifications are estimated that incorporate variables for buyer ownership structure. Lewellen, Loderer, and Rosenfeld (1989) suggest that the buyer's share price reaction to an acquisition of a public firm is a positive function of insider ownership, since high insider ownership mitigates concerns over agency problems at an acquirer. However, we find no evidence that insider ownership affects buyer gains in asset for equity sales. Likewise, the extent of external monitoring provided by pre-existing large shareholders at buyer firms, as measured by the extent of institutional ownership and outside blockholdings prior to the transaction, does not affect excess returns to buyers.

None of the variables that reflect special provisions in some asset for equity sales agreements affect returns to buyers. Neither the variables for standstill agreements, which occur in 13% of the events, nor the representation of the seller on the buyer's board of directors, which occurs in 33% of the events, have significant coefficients. Similarly, the proportion of the transaction price that is in the form of buyer equity does not have a statistically significant effect. Corporate law treats an asset sale as a fiduciary responsibility of the board of directors that need not be submitted for a shareholder vote. Nevertheless, for 32 buyers, the sale is contingent on a shareholder vote, which could delay closing and add to transactions costs, or could be value-enhancing if it strengthens the market's expectation that a transaction is in the interests of shareholders. However, the coefficient for this variable is not statistically significant, a result consistent with media reports that suggest these votes are largely a formality.

We also test whether strategic relationships and product market dealings between the parties affect buyer returns, given Allen and Phillips' (2000) finding that alliances and joint ventures enhance returns to targets of private equity placements. However, the coefficient for this variable is not significant, suggesting strategic relationships do not alter the valuation effects of asset for equity sales. Finally, the coefficient is not statistically significant for a variable for the six asset sales that are not completed, indicating that the market cannot anticipate which transactions will fail to come to fruition. Overall, these results indicate that buyer returns in asset for equity sales are a positive function of the relative size of the transaction and have a nonlinear relationship to the size of the equity block formed in these sales.

In the seller regressions, there is a positive effect of the size of the transaction relative to the seller's market capitalization, as is found in the buyer regressions. However, for seller firms, none of the coefficients for variables that reflect transaction terms or firm characteristics are statistically significant, except for a positive and statistically significant coefficient for the seller shareholder vote variable.

C. Operating Performance of Buyers and the Subsequent Status of the Blockholdings

We evaluate whether the increase in buyer value in asset for equity sales is a precursor to an improvement in buyer operating performance, and we examine

Table VI
Operating Performance of Buyers Subsequent to Asset
for Equity Sales

Yearly change in operating performance for buyers subsequent to asset for equity sales, using the Barber and Lyon (1996) adjustment methodology that uses relevant sets of benchmark firms to assess performance. The fiscal year in which the asset for equity sale occurs is defined as year 0. The matching procedure selects benchmark firms using year -1 data to match sample firms with benchmark firms that have the same four-digit SIC code, market capitalization that is within a 90–110% range of the buying firm, and operating performance in year -1 that is within 90–110% of the buyer. Accounting data are collected from the Compustat Industrial and Research database and from Moody's manuals. The two operating performance measures are: the return on assets, ROA, which is operating income before depreciation, interest, taxes, and extraordinary items, divided by average total assets; and, return on sales, ROS, uses the same definition of operating income, but divided by total sales. The median of the changes in firm operating performance relative to the performance for the benchmark firms is reported over the 4-year period (0, +3). The nonparametric Wilcoxon signed rank test is used to test for statistical significance; p -values are reported in parentheses, and N is the sample size.

	Years Relative to Acquisition Year			
	(-1 to 0) (1)	(0 to +1) (2)	(+1 to +2) (3)	(+2 to +3) (4)
Change in ROA	–1.55% (0.01) $N = 73$	0.06% (0.89) $N = 66$	1.04% (0.17) $N = 60$	0.35% (0.80) $N = 42$
Change in ROS	–0.62% (0.12) $N = 69$	1.43% (0.07) $N = 60$	1.15% (0.20) $N = 56$	0.12% (0.73) $N = 40$

the pattern and share price effects of seller dispositions of the blockholdings to determine whether asset for equity sales affect buyer openness to the market for corporate control. Our test of operating performance utilizes the Barber and Lyon (1996) adjustment methodology. The fiscal year of the transaction is defined as year 0. The procedure uses year -1 data to match sample firms with benchmark firms that have the same four-digit SIC code, market capitalization that is within a 90–110% range of the buyer, and operating performance in year -1 that is within a 90–110% range of the buyer.² Accounting data are from the Compustat Industrial and Research database and Moody's Manuals. We test two operating performance measures, return on assets (ROA), defined as operating income before depreciation, interest, taxes, and extraordinary items, divided by average total assets, and return on sales (ROS), which uses the same definition of operating income, but divided by total sales. In Table VI, we report the median of the percentage changes in operating performance less the median of benchmark firms over a 4-year period (0, +3). The nonparametric

² To control for the effects of extreme values, which can occur due to reporting errors in accounting information, we winsorize the data to exclude observations in the 1% tails of an operating performance measure.

Table VII
Outcomes of Seller-Owned Blocks of Buyer Equity Subsequent to the Completion of Asset for Equity Sales

Types of outcomes of 84 seller-owned blocks of buyer equity that were formed by asset for equity sales for which definitive information is available about the outcome of the block. An outcome falls into one of the three categories: the seller continues to hold the block as of the end of this study, the buyer sustains a corporate control event, and the seller makes a decision to dissolve the blockholding.

Types of Outcomes for Seller-Owned Equity Blocks in a Buyer	Category of Outcome	Percentage	Number of Events	Percentage
Total blocks	84	100%		
Seller continues to hold block of buyer equity	20	24%		
Corporate control event ends blockholding	21	25%		
Seller acquires buyer			2	2%
Third party acquires buyer			17	20%
Buyer files Chapter 11 bankruptcy			2	2%
Seller decision to dissolve equity block	43	51%		
Spin-off			9	11%
Secondary seasoned stock offering			12	14%
Block trade			17	20%
Repurchase of seller-held equity by buyer			5	6%

Wilcoxon signed rank test is used to test for statistical significance; p -values are in parentheses.

Buyers in asset for equity sales have weaker operating performance than benchmark firms in year 0, and the ROA measure is significant at the 1% level. Year +1 buyer performance closely matches benchmark firms for ROA, and significantly outperforms benchmark firms in terms of ROS. For year +2, there is superior performance by buyers, but the results fall short of being statistically significant at the usual confidence levels. We also find a correlation of 0.13 ($p = 0.27$) between operating performance and announcement returns to buyers over the interval $(-1, +3)$, suggesting a weak positive relation. Overall, this evidence indicates modest improvements in subsequent operating performance for buyers in asset for equity sales. For sellers in equity sales, and for both buyers and sellers in cash sales, the data (not reported in the table) indicate the absence of abnormal subsequent operating performance. This result is expected since the assets involved represent a significantly smaller proportion of market value for these firms relative to buyers in asset for equity sales.

To investigate the subsequent status of the corporate blockholdings formed by asset for equity sales, we obtain relevant information for each firm for each year following the asset for equity sale by examining the *Wall Street Journal*, Dow Jones News Wire (Factiva), Lexis-Nexis, proxy statements, 10-K reports, and other corporate reports. There is definitive information about seller blockholdings in 84 cases.

As reported in Table VII, in 20 (24%) cases, the seller continues to hold the equity block in the buyer firm at the end of the study, and can be viewed as

a permanent blockholder. In two cases (2%), the buyer conducts a Chapter 11 bankruptcy filing. Each firm emerged from bankruptcy, and we can confirm that the seller was not a holder of a 5% block after reorganization; we cannot confirm, however, whether the seller received any new equity or debt in the reorganized firm.

There are only two cases (2%) of a subsequent merger between the buyer and the seller. Thus, an asset for equity sale is not a precursor to a consolidation between the two parties. In 17 (20%) cases, the buyer is subsequently acquired by a third party. Given that in 22% of the sample, the buyer becomes the target of a control transaction, we conclude that an asset for equity sale does not reduce the buyer's openness to the market for corporate control. We compare these results to corporate control activity at benchmark firms that are matched to buyer firms prior to the transaction on the basis of having the same four-digit SIC code, of being closest in terms of market capitalization, and of not being a subsidiary of another firm. Of the 84 benchmark firms, there are 19 firms (23%) that are subsequently targets of corporate control activity, virtually identical to the proportion for asset for equity sales. Thus, there is no evidence that an asset for equity sale enhances or hinders a buyer's openness to the market for corporate control, indicating that buyer gains in asset for equity sales do not reflect an expectation that these transactions will be a catalyst for subsequent corporate control changes. With regard to bankruptcy, 10 benchmark firms (12%) file Chapter 11, a frequency that is significantly greater, at the 5% level, than for buyers that conduct a Chapter 11 filing after an asset for equity sale. This result is consistent with evidence of improved subsequent operating performance at buyers relative to benchmark firms.

An implication of Burkart's (1995) bidding model is that buyer gains at the announcement of an asset for equity sale could reflect expectations of aggressive bidding in a subsequent control contest as a result of the seller's blockholding. We examine news reports of each of the third-party takeover transactions, but find no evidence of public activity by the seller with respect to initiating, reacting to, or encouraging these transactions. In particular, none of these seller blockholders make a public bid for a buyer to induce a third-party acquirer to pay a higher price.

In 43 cases (51%), seller blockholdings are subsequently eliminated. As reported in Panel A of Table VIII, the 2-day average excess return to buyers at these announcements is 3.02% (*t*-statistic of 6.24). Over the prior 30 trading days, there is also a positive return, 6.52% (*t*-statistic of 1.75). This positive excess return largely reflects events in which the buyers are acquired by third parties, automatically eliminating the seller block, given a 2-day average excess return of 10.76% (*t*-statistic of 9.54), as reported in Panel B. Sellers have positive average excess returns of 1.29% (*t*-statistic of 2.10) at announcements that the blockholding is to be eliminated, and there is a positive return of 7.84% (*t*-statistic of 1.71) for the prior 30 trading days.

The seller voluntarily dissolves its blockholding in 31 cases. At these announcements, the 2-day average excess return to sellers is 1.69% (*t*-statistic of 2.30), and is similar to seller returns when the buyer is acquired by a third

Table VIII
Excess Returns for Buyers and Sellers at Transactions That
Eliminate Seller-Held Blocks of Buyer Equity That Were Formed
by Asset for Equity Sales

Excess returns in percentage at announcements of eliminations of seller-held blocks of buyer equity formed by asset for equity sales, for buyers and sellers over the period 1982 through 2000 for firms listed on NYSE/ASE/Nasdaq. Two-day returns are calculated for the announcement window $(-1, 0)$ and 1-month returns for the pre-announcement period $(-30, -2)$. Excess returns are calculated using market model methodology. Market model parameters are estimated using least squares over the pre-event period, $t = -160$ to -41 ; t -statistics are in parentheses, proportion of returns positive in brackets, and N is the sample size. Statistical significance of the proportion positive is based on the Wilcoxon signed rank test. Results for buyers and sellers are reported for the full sample of events for which a definitive announcement date is available, and also disaggregated by the type of outcomes for the various methods that eliminate the equity blocks. Statistical significance is indicated by * at the 10% level, ** at the 5% level, and *** at the 1% level.

	Buyers		Sellers	
	$(-1, 0)$ (1)	$(-30, -2)$ (2)	$(-1, 0)$ (3)	$(-30, -2)$ (4)
Panel A: Announcement Returns at Transactions Eliminating Seller-Held Equity Blocks				
Full sample	3.02% (6.24)*** [0.56] $N = 50$	6.52% (1.75)* [0.68] $N = 50$	1.29% (2.10)** [0.60] $N = 35$	7.84% (1.71)* [0.54] $N = 35$
Panel B: Announcement Returns by Type of Elimination of Seller-Held Equity Blocks				
Buyer acquired by third party	10.76% (9.54)*** [0.65]*** $N = 17$	9.43% (1.85)* [0.82] $N = 17$	1.11% (0.33) [0.60] $N = 5$	8.69% (1.16) [0.60] $N = 5$
Seller initiated eliminations	-2.70% (-1.48) [0.39] $N = 31$	4.07% (0.55) [0.61] $N = 31$	1.69% (2.30)** [0.61] $N = 28$	10.51% (1.54) [0.64] $N = 28$
Secondaries	-4.25% (-2.46)** [0.09] $N = 11$	5.02% (0.14) [0.55] $N = 11$	1.66% (2.42)** [0.55] $N = 11$	1.26% (0.04) [0.64] $N = 11$
Spin-offs	-4.28% (-2.39)** [0.17] $N = 6$	4.83% (0.55) [0.67] $N = 6$	-1.53% (-0.33) [0.25] $N = 4$	16.22% (2.35)** [0.75]* $N = 4$
Repurchases	-5.44% (-1.64) [0.75]** $N = 4$	23.78% (1.08) [1.00] $N = 4$	3.77% (1.51) [1.00] $N = 4$	7.51% (0.96) [0.75] $N = 4$
Block trades	1.04% (0.79) [0.70] $N = 10$	-5.30% (-0.18) [0.50] $N = 10$	1.30% (0.33) [0.67] $N = 9$	15.29% (0.53) [0.56] $N = 9$

party, 1.11% (*t*-statistic of 0.33). Thus, the dissolution of the blockholding enhances seller value. At these announcements, buyers sustain a negative, but not significant, 2-day average excess return of -2.70% (*t*-statistic of -1.48).³ The stock price performance of buyers for the prior 30 days is also positive, but not statistically significant. These results suggest that a seller-initiated dissolution of a blockholding has little effect on buyer value relative to the gains buyers sustain at announcements of asset for equity sales. This evidence suggests that it is the use of equity as a medium of exchange rather than the formation of a blockholding that is the dominant factor enhancing buyer value at announcements of asset for equity sales.

IV. Conclusions

We present evidence that the use of equity as a means of payment in intercorporate asset sales enhances shareholder value, generates significantly greater increases in wealth than cash asset sales, and that these wealth gains are shared between buyers and sellers. These results challenge the widely held view that the issuance or the use of equity typically results in a reduction in firm value. Such losses in firm value, which are well documented for the use of equity as the means of payment for mergers and takeovers as well as for external corporate financing, are viewed as consistent with theoretical work that implies that there is an adverse selection problem intrinsic to equity issuance.

Our work provides insight about the effects of equity that are not explained in available theoretical models nor found in previous empirical work, raising the issue of the need for further study of the role of equity in corporate transactions. While studies of mergers and takeovers have extensively analyzed the effects of the means of payment on buyer value, less is known about the effects on value creation and the distribution of the gains associated with other types of transactions in which the means of payment involves equity. Overall, our work indicates that the use of equity as a means of payment has an important value-enhancing effect on the parties to intercorporate asset sales, and that these transactions should not necessarily be treated as a subset of the merger and takeover literature. The evidence we present suggests the need for theoretical work specifically oriented to modeling asset-sale type transactions and the informational environment within which these transactions occur.

Contrary to prior studies, we present evidence that corporate asset sales can generate economically significant gains for buyers, and that the use of buyer equity as the means of payment for such transactions is a favorable signal of value. There are large, significantly positive wealth effects for both parties at announcements of asset for equity sales, with returns of 3% for sellers and

³ Sellers dissolve their blockholdings through one of four transactions: a special dividend (spin-off) of the shares to their own shareholders; a secondary seasoned stock offering; a block trade on the stock exchange that entails a brokerage house selling the shares to institutional investors; or, a repurchase of the seller's blockholding by the buyer firm. The results in Panel B indicate negative excess returns to buyers and positive returns to sellers for each dissolution method except for block trades.

10% for buyers. In comparison, cash asset sales generate returns of 1.9% to sellers, and nonsignificant returns to buyers. Asset sales in which buyer equity is the means of payment generate significantly larger aggregate gains relative to transaction size than cash asset sales. The large gains to asset for equity sales are shared between buyers and sellers, while in cash asset sales, all of the proportionately smaller gains go to sellers. For events in which the buyer equity conveyed to the seller is less than a 5% blockholding, buyer returns remain strongly positive, evidence that the use of equity as a means of payment is an important factor enhancing buyer value. Other provisions sometimes included in asset for equity sales agreements have little effect on returns to buyers or sellers.

We find that an asset for equity sale is not a precursor to a consolidation between the buyer and the seller. Third-party acquisitions of buyers occur in approximately 20% of the sample, a figure that closely matches the proportion of benchmark firms that become targets of control transactions. Thus, asset for equity sales neither hinder nor enhance the buyer's openness to the market for corporate control, so buyer wealth gains do not reflect an expectation that the transaction is a catalyst for a subsequent control change. For about 25% of the sample, sellers continue to hold their equity blocks as of the end of the period of study. For the remaining events, when sellers voluntarily dissolve their equity blocks, there is little effect on buyer value relative to the gains that buyers sustain at announcements of asset for equity sales.

We conclude that the use of equity as a means of payment in intercorporate asset sales is not the deleterious signal of buyer value that it is in mergers and takeovers. Instead, there are large increases in shareholder wealth at asset for equity sales relative to cash asset sales, suggesting that the use of buyer equity in an intercorporate asset sale conveys valuable positive private information about the relevant asset and the buyer.

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