Selling to Buy: Asset Sales and Method of Payment in M&As

CHRISTOS MAVIS, NATHAN MCNAMEE, DIMITRIS PETMEZAS, and NICKOLAOS G. TRAVLOS*

ABSTRACT

This study establishes that asset sale proceeds constitute an economically important omitted variable that determines the method of payment in acquisitions. We find that firms with asset sales are more likely to subsequently conduct cash acquisitions. In economic terms, this translates into 42.76% higher likelihood to use cash as method of payment. We attribute this finding to the increased cash liquidity offered by asset sales. Our results are robust after controlling for potential endogeneity bias, and highlight, in a setting of two pure asset restructuring events, the importance of asset sales to the crucial choice of payment method in acquisitions.

*Christos Mavis is from Surrey Business School, University of Surrey, UK, E-mail: c.mavis@surrey.ac.uk, Phone: +44(0)1483 686572. Nathan McNamee is from Surrey Business School, University of Surrey, UK, E-mail: n.mcnamee@surrey.ac.uk, Phone: +44(0)1483 682117. Dimitris Petmezas is from Surrey Business School, University of Surrey, UK, E-mail: d.petmezas@surrey.ac.uk, Phone: +44(0)1483 686376. Nickolaos G. Travlos is from ALBA Graduate Business School at The American College of Greece, E-mail: ntravlos@alba.edu.gr, Phone: (+30) 210-896 4531-8. We would like to thank Yakov Amihud, Ettore Croci, Andrey Golubov, and Nikolaos Karampatsas for useful comments and suggestions. Travlos acknowledges financial support received from the Kitty Kyriacopoulos Chair in Finance. All remaining errors are our own.

Stryker Corp. agreed to buy Boston Scientific Corp.'s stroke-treating neurovascular businesses for $1.5 billion [….] Boston Scientific plans to use half of the $1.2 billion in after-tax proceeds to retire debt and the rest for acquisitions (Source: The Wall Street Journal, "Stryker to Buy Boston Scientific Unit", October 28, 2010).[1]

I. Introduction

Asset sales are an important means of corporate restructuring, with existing research on restructuring and divestitures showing that asset sale proceeds can become an important source of allocable capital for firms which is frequently used to fund corporate investments.[2] In this study we focus on mergers and acquisitions (M&As) for two main reasons: First, recognizing the fact that M&As represent perhaps the most economically important corporate investment in the life of a firm,[3] it is rather surprising that the extant literature on funding sources for M&As is silent on the use of proceeds from asset sales, focusing only on operating cash flows, debt, and equity (see, e.g., Jensen (1986), Amihud, Lev, and Travlos (1990), Schlingemann (2004), and Martynova and Renneboog (2009)).[4] Second, M&As following asset sales represent pure asset restructuring

[1] As of December 31, 2012, Boston Scientific acquired three firms using $490 million of cash proceeds derived from the asset sale (Source: Thomson Financial SDC).

[2] Bates (2005) argues that asset sales increase firms' liquidity, and that cash proceeds from a sale can be re-allocated to the unfunded projects of the divesting firm. In this respect, Hovakimian and Titman (2006) and Borisova and Brown (2013) provide empirical evidence that asset sale proceeds are used to fund capital expenditures and R&D investments, respectively. Arnold, Hackbarth, and Puhan (2015) also show that asset sales are often used as a funding source for corporate investment but find evidence that they are sensitive to business cycles.

[3] Over the period between 1990 and 2014, the U.S. takeover market has faced 396,056 deals worth almost $80 trillion (Source: Thomson Financial SDC).

[4] In prior literature, the term 'method of payment' is usually considered as synonymous to the 'sources of takeover funds' (see, e.g., Travlos (1987) and Faccio and Masulis (2005)). Nevertheless, Schlingemann (2004) and Martynova

events, which are not confounded by capital structure effects associated with proceeds being used for retiring corporate debt, or with payout (i.e., dividends or repurchases) policy implications related with distribution of cash to shareholders.

While numerous motivations for asset sales and uses of proceeds have been cited,[5] no study, to our knowledge, has examined particularly the use of proceeds from asset sales as a potential source of funds in M&As. In fact, there is only a passing comment from Lang, Poulsen, and Stulz (1995), which suggests that many firms "[…] seem to sell assets while engaged in a program of acquisitions so that the asset sales provide cash for these programs […]", and some descriptive statistics provided by Kaplan and Weisbach (1992) and John and Ofek (1995), which show that firms raise cash through asset sales in order to fund acquisitions.[6] The prominence of asset sale proceeds as a source of allocable capital raises an important question in relation to the central choice of method of payment in M&As. Do asset sales affect the probability of selecting cash as the means of payment in acquisitions?

Motivated by the lack of empirical evidence on the subject, we address this question and consider whether firms' restructuring through asset sales affects the choice of payment method in acquisitions. We contend that proceeds from asset sales improve firms' cash richness offering

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and Renneboog (2009) have reconciled the two concepts, providing evidence that the source of funds (in addition to the method of payment) plays an important role in acquisitions.

[5] According to the asset sales literature, the motivation to sell an asset and the intended use of the proceeds may come from a desire to: i) focus on the core business, ii) create synergies, iii) pay off debt, iv) raise cash, v) increase shareholder value, vi) reinvest in current assets, vii) improve cost efficiencies, and viii) comply with regulatory requirements (Lang, Poulsen, and Stulz (1995), Bates (2005), and Borisova, John, and Salotti (2013)).

[6] Kaplan and Weisbach (1992) show that 28% of their sample engaged in asset sales to finance an acquisition or leveraged buyout, while John and Ofek (1995) find that 5% of their sample used the proceeds to finance an acquisition.

important internal capital to fund corporate investments (Edmans and Mann (2015)). Therefore, if firms ultimately decide to proceed to an M&A investment, asset sale proceeds will allow them to increase their cash liquidity, which should, in turn, have an effect on the choice of payment method. In this respect, determinants of the choice of method of payment in acquisitions have been widely discussed in the literature,[7] with Martynova and Renneboog (2009) showing also that method of payment is strongly related to the funding source.[8] Moreover, Schlingemann (2004) documents that cash acquisitions are financed through idle cash generated via various financing sources in the period prior to the acquisition, but does not identify asset sale proceeds as a potential source of cash, focusing only on free cash flows, equity, and debt. In fact, Clayton and Reisel (2013), find that remuneration from asset sales is almost explicitly in cash, with 81% of asset sales involving 100% cash transactions. This cash increases firms' liquidity and enables firms to fund investment projects (Bates (2005)). Therefore, asset sales result predominantly in increased cash liquidity, which naturally leads to the *prediction, ceteris paribus, of a positive relation between firms' asset sales and cash method of payment in M&As*.

We use a broad sample of U.S. acquisitions over the period from 1990 to 2014 and find strong empirical support for our hypothesis. In brief, we show a significantly positive relation between asset sales and the choice of cash as the method of payment at the 1% significance level.

[7] See for instance, Amihud, Lev, and Travlos (1990), Faccio and Masulis (2005), Harford, Klasa, and Walcott (2009), Chemmanur, Paeglis, and Simonyan (2009), and Karampatsas, Petmezas, and Travlos (2014).

[8] In particular, Martynova and Renneboog (2009) show, among others, that acquisitions with different funding sources are distinct and have different effects, despite having the same method of payment. They also find that a bidder's preferred source of financing depends largely on bidder and deal characteristics, including bidder growth potential and the relative size of the target.

Firms that fund acquisitions through asset sales are approximately 42.76% more likely to use only cash as the method of payment relative to the cash acquisition sample average. Moreover, we find that firms using asset sale proceeds as the funding source exhibit a much higher cash intensity and use approximately 20.38% more cash than those funded through some other means.

We also consider potential endogeneity arising either from reverse causality or from the choice of asset sales being correlated with potential omitted variables. To address this issue, we employ three econometric methodologies (i.e., instrumental variable (IV) approach, propensity score matching (PSM), and impact threshold for a confounding variable (ITCV)) to control for potential endogeneity bias and confirm the positive association between asset sales and cash method of payment in M&As. Finally, our results also hold to various robustness checks.

This study makes several important contributions to the asset sales, M&A, method of payment, and sources of funding literature. First, it adds to the literature on the determinants of method of payment in M&As, offering an economically important omitted variable and particularly underlining the relation between asset sales and the use of cash as a means of payment in acquisitions. Second, it provides empirical evidence that proceeds from asset sales are likely to be used as a funding source in one of the most important corporate investments, i.e., M&As. Finally, the findings also highlight an alternative type of firms' restructuring (i.e., selling assets to buy assets), which has, to a great extent, been ignored by the prior literature.

Our findings have also further important implications for both academics and practitioners. Specifically, our findings reveal the significant importance of asset sale proceeds as an additional funding source for corporate investments, mitigating the negative effects associated with traditional external funding sources such as equity and debt issues. This is in line with the pecking order theory and the preference for internal funds to finance corporate investments. Furthermore,

firms that sell assets are more likely to subsequently make cash acquisitions and, consequently, experience the positive wealth effects associated with cash as a method of payment. For example, previous empirical findings show that bidders experience higher short- and long-term abnormal returns when deals are transacted in cash.[9] Moreover, the use of cash as a method of payment has been found to discourage rival bids (Chemmanur, Paeglis, and Simonyan (2009)). Managers and financial advisors should take this information into account when engaging in M&A deals.

Our study is related to the work of Bates (2005), Hovakimian and Titman (2006), and Borisova and Brown (2013). Bates (2005) identifies distributions to debt or equity holders, retention of proceeds by management, and financing of capital expenditure as potential uses of asset sale proceeds. Hovakimian and Titman (2006) and Borisova and Brown (2013) also show that proceeds from asset sales are commonly deployed to finance capital expenditures (CAPEX) and research and development (R&D) investments, respectively. Our findings suggest that cash acquisition funding is another use of asset sale proceeds. We also extend the work on sources of corporate funding by Jensen (1986), Amihud, Lev, and Travlos (1990), Schlingemann (2004), Martynova and Renneboog (2009), and Eckbo and Kisser (2015) by highlighting the importance of asset sale proceeds as an overlooked source of funds in acquisitions. Furthermore, our work is related with studies which provide associations between increases in firms' cash liquidity and acquisition bids such as Jensen (1986), Blanchard, Lopez-de-Silanes, and Shleifer (1994), and Harford (1999), though our study focuses particularly on the choice of payment method in takeover bids.

[9] Travlos (1987) and Huang and Walkling (1987) show that cash offers are positively associated with higher abnormal returns in the short-run for public acquisitions, while Loughran and Vijh (1997) and Megginson, Morgan, and Nail (2004) find significantly higher long-term abnormal returns.

The remainder of this study is organized as follows: Section II describes our sample and data. Section III provides the empirical results of the effect of asset sales on the choice of method of payment in M&As. We consider endogeneity issues in Section IV, and we provide additional auxiliary tests to further substantiate the robustness of our results in Section V. Lastly, Section VI concludes the paper.

II. Sample and Data

A. Sample Selection Criteria

Our acquisition sample consists of deals announced between January 1, 1990 and December 31, 2014, and is obtained from the Thomson Financial SDC Mergers and Acquisitions Database (SDC). Bidders are U.S. public firms, and targets are public, private, or subsidiary firms domiciled both in and outside of the U.S. There is a one-year lag between our dependent variables in a specific year to the firm's asset sales and other control variables at the end of the previous year. We eliminate transactions valued at less than $1 million.[10] We further require that bidders must own less than 10% of the target's shares prior to the announcement and must be seeking to acquire more than 50% of the target's shares after the acquisition. We exclude all privatizations, leveraged buyouts, spin-offs, recapitalizations, self-tender offers, repurchases, sales of a minority interest, liquidations, restructurings, reverse takeovers, bankruptcy acquisitions, going private transactions, exchange offers, acquisitions of partial interest, and buybacks. We find that 12,098 bidders conducted 39,556 acquisitions over the period 1990 to 2014, out of which 37,683 are completed deals.

[10] All dollar variable values have been adjusted to 2014 dollars using the consumer price index (CPI).

B. Measures of Asset Sales

One challenge in observing asset sale proceeds as a funding source for M&As is that there is no way to observe an exact corollary between a dollar raised in time t and a dollar spent on an acquisition in time $t+\tau$ (Schlingemann (2004)). Similar to Schlingemann (2004), rather than attempting to establish a precise correspondence, we consider the cash made available to the firm through asset sales which occurred within 12 months prior to the acquisition announcement. For purposes of clarity, we define asset sales to include any divestitures or sell-offs of business segments, product lines, investment assets, or property, plant, and equipment.[11]

We collect asset sales data from the SDC and COMPUSTAT databases. Definitions for our asset sale measures are found in the Appendix. Similar to Edmans and Mann (2015), we identify SDC asset sales (*EM asset sale*) as completed M&A transactions with the form of transaction being either acquisition of assets or acquisition of certain assets, and where the acquisition technique field includes at least one out of divestiture, property acquisition, auction, or internal reorganization,[12] and none out of buyout, bankrupt, takeover, restructuring, liquidation, private,

[11] The term divestiture has been defined in the literature as pertaining to the modification of a firm's productive assets through either sell-offs or spin-offs (Alexander, Benson, and Kampmeyer (1984) and Tehranian, Travlos, and Waegelein (1987)). Hite and Owers (1983) observe that a spin-off results in the creation of an independent firm with a corresponding reduction in the asset base of the divesting firm. Thus, spin-offs are restructuring events that do not generate proceeds for the divesting firm, nor do they create an opportunity for managers to continue the control of spun-off assets, consequently, spin-offs will not be relevant to our study. Unless specifically noted, where the term divestiture is used in this paper, it refers to sell-offs only.

[12] Edmans and Mann (2015) also include *spin-offs* which have been excluded for purposes described in footnote 11. While spin-offs are nominally excluded, adding this restriction does not remove any observations from our asset sale subsample.

tender, unsolicited, and failed. In these transactions, the asset seller is the firm raising funds to be used in a subsequent corporate investment (i.e., acquisitions).

As in Eckbo and Kisser (2015), we identify COMPUSTAT asset sales (*EK asset sale*) as the sale of investments, sale of property, plant and equipment (PPE), and cash flows from other investment activities (i.e., change in short-term investments and investing activities) according to the formula: asset sales = siv + min[ivstch,0] + min[ivaco,0] + sppe.

Using these two asset sale measures, we create our main variable of interest, which is a composite asset sale dummy variable (*asset sale*) taking the value of 1 if: i) the asset sale is either an *EM asset sale*, as in Edmans and Mann (2015), or an *EK asset sale*, as in Eckbo and Kisser (2015); and ii) the ratio of the asset sale value to the cash used in the subsequent acquisition is greater than 1 (i.e., the asset sale proceeds cover 100% of the cash used in the deal). Otherwise, the dummy is set to 0. This variable, which has the advantage of including all possible asset sale information, is constructed in order to identify whether the firm had any reported asset sales within the 12 months leading up to the announcement date that were large enough to meet the funding needs of the acquisition. Out of the 39,556 transactions, 676 transactions involve bidders with an EM asset sale, 3,583 involve bidders with an EK asset sale, and 4,020 involve bidders with our composite asset sale measure, which suggests that 10.16% of the deals in our sample are funded by asset sale proceeds. For robustness reasons, in Section V we also test separately the *EM asset sale* and *EK asset sale* variables and obtain similar results. Likewise, we test when the asset sale only covers 75% or 50% of the cash used in the deal as opposed to 100%. We also test when the asset sale proceeds cover 100% of the total deal value rather than the cash used in the deal. In both cases we find comparable results.

C. Variables

In our empirical analysis, we control for firm, industry, and deal characteristics, with definitions of all variables presented in the Appendix. At the firm level, we control for firm *size* and use total assets as a proxy. Faccio and Masulis (2005) show that larger firms are more apt to choose cash as the method of payment. Conversely, Hansen (1987) suggests that the probability of a stock offer increases with the bidder's size. We also control for a potential concurrent source of firm liquidity, which has been shown to serve as source of funds in acquisitions, by including *free cash flows* (Jensen (1986)). Apart from size, we further control for financial constraints by using *cash reserves* (Harford (1999)), *KZ index* as in Lamont, Polk, and Saá-Requejo (2001), and *leverage*. Faccio and Masulis (2005) suggest that firms with higher *leverage* use stock financing more frequently than cash. However, Harford, Klasa, and Walcott (2009) report a positive relation between leverage and cash method of payment.

To control for investment opportunities, we employ the *market-to-book ratio*. Carleton et al. (1983) find that the probability of a cash offer has a negative relationship with the bidder's market-to-book ratio.

Further, we use *sigma* as a proxy for information asymmetry. Martynova and Renneboog (2009) suggest that the higher the potential target-firm information asymmetry, the lower the likelihood of bidders to make a cash offer. Additionally, Mikkelson and Partch (1986) show that firms often issue equity after significant *run-up* in their equity values. We expect a negative relation between run-up and cash payment. Amihud, Lev, and Travlos (1990) find that managerial ownership leads to an increased probability in cash payments. Thus, we expect *director/officer ownership* and cash payment to be positively related.[13]

[13] Data for director/officer ownership are only available from 1997. We therefore use this variable in the analysis in

We also control for a number of deal-specific characteristics. *Relative size* has been shown to affect method of payment. Uysal (2011) demonstrates that relative size has a negative relation to cash method of payment. Another important determinant of the choice of the payment method is the degree of industry relatedness between the bidder and target firms. Faccio and Masulis (2005) suggest that when bidders and targets are in related industries and the acquisition is *focus increasing*, the target firm will be more apt to accept payment in equity rather than cash.

In addition, Karampatsas, Petmezas, and Travlos (2014) provide evidence that *hostile deals* are positively associated with cash method of payment. We also include *competing deals*. Chemmanur, Paeglis, and Simonyan (2009) show that the use of cash payment discourages rival bids.

Further, Travlos (1987) documents a positive association between *tender offers* and cash method of payment. Faccio and Masulis (2005) find a positive relation between *completed deals* and cash means of exchange. Finally, Faccio and Masulis (2005) also suggest that private sellers are likely to prefer cash. Therefore, we control for *public target* status and expect a negative association with cash method of payment.

At the industry level, *industry M&A liquidity* measures the intensity of intra-industry M&A activity. Uysal (2011) finds that acquirers are more likely to use equity when there is high M&A liquidity within their industry, thus reducing the probability of using cash. Industry concentration also influences acquisitions, as firms in highly concentrated industries have fewer competitors that can serve as targets, reducing the number of within-industry acquisitions. Harford and Uysal (2014) use the *Herfindahl index* to control for this effect.

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our robustness Section V.B. along with corporate governance variables.

D. Sample Statistics

Table 1 presents descriptive statistics for the overall sample and is further partitioned by method of payment. We winsorize all non-binary variables at the 1st and 99th percentiles apart from cash reserves and leverage, which have been winsorized only at the 99% percentile (right-hand side).[14]

In Panel A, we present bidder characteristics. Here we find our first evidence of a positive relation between *asset sales* and cash method of payment, showing that firms using cash have more asset sales than those not using cash. This difference in means is significant at the 1% significance level.

*** Please Insert Table 1 About Here ***

The mean (median) *size* for firms in the cash subsample is $8.2 billion ($1.0 billion) versus $5.4 billion ($434 million) for those in the non-cash subsample. We find that the difference between the means and medians of our cash and non-cash subsamples is significant for *free cash flows*, showing that firms utilizing cash as the method of payment have larger free cash flows; however, we also observe that these firms have slightly lower levels of *cash reserves*. We report that firms using cash have significantly higher *leverage* than their counterparts and lower *market-to-book*, with the difference in means and medians exhibiting statistical significance. Additionally, the difference in means for the *KZ index* is significant between our subsamples. Firms in the cash subsample have a significantly lower *sigma*. They also have significantly smaller stock *run-up* in the period before the acquisition announcement, which is consistent with the literature that suggests that firms will be more likely to use stock when their stock is overvalued. Differences in *director/officer ownership* between subsamples display no statistical significance. *Industry M&A*

[14] Note that in our regressions we use the natural logarithm of size, which is not winsorized.

liquidity is slightly lower in the cash subsample, with the difference in means being statistically significant. Additionally, firms using cash come from industries with higher market concentration as measured by the *Herfindahl index*.

We report target firm characteristics in Panel B. We find that the mean and median *target size* and *target leverage* values are significantly smaller in deals with cash method of payment. Moreover, *target market-to-book* is slightly lower for the cash payment group relative to the non-cash payment group at conventional levels. Finally, *target sigma* is not significantly different between the subgroups.

Panel C presents the statistics for deal characteristics. We show that all-cash deals are significantly smaller in *relative size* and are less likely to be *focus increasing*. In our sample, deals with cash payment method tend to be more *hostile* and are more likely to have *competing* bids at conventional significance levels. We further observe that cash deals are almost four times as likely to be *tender offers* (6.35% versus 1.65%), are more likely to be *completed deals*, and are less likely to be *public* companies.

*** Please Insert Table 2 About Here ***

Table 2 presents descriptive statistics for the overall sample and is separated by whether the *asset sale* variable is equal to 1 or 0. Panel A illustrates statistics for the dependent variable characteristics.

Just over a third of our sample (35.82%) comprises deals with 100% *cash payment*. However, deals funded by asset sales appear to be significantly more likely to have cash as the method of payment (60.35%) than those not financed by asset sales (31.78%). This difference is statistically significant (*p*-value 0.000), which provides an initial support to our hypothesis of a positive association between asset sale and cash method of payment. Similarly, the mean *cash*

percentage when funded by asset sales is 77.48%, compared to 46.22% for the non-asset sale subsample.

In Panel B, we present bidder characteristics. The mean *size* for firms with asset sales is $13.6 billion versus $5.4 billion for those without asset sales. We find that the difference between the means of our asset sale and non-asset sales subsamples is not significant for *free cash flows*, while firms with asset sales have significantly higher levels of *cash reserves*. We also report that firms with asset sales have significantly lower *leverage*, *KZ index*, *sigma*, and stock *run-up*, but a higher *market-to-book* (median only). We find no significance in differences for *director/officer ownership*. *Industry M&A liquidity* exhibits small economic difference between subsamples, with the difference in medians being significant at conventional levels. Firms using funds from asset sales come from industries with lower market concentration as measured by the *Herfindahl index*.

Target firm characteristics are presented in Panel C. We find that the mean and median *target size* values are smaller in deals funded by asset sale proceeds, though only medians exhibit any statistical significance. *Target leverage* is significantly lower in the asset sale subsample. Moreover, *target market-to-book* and *target sigma* do not exhibit a statistically significant difference in mean or median values.

Panel D displays the statistics for deal characteristics. We show significant differences in *relative size*, *focus increasing* deals, *hostile* deals, *competing* bids, *tender offers*, and *completed deals*, with focus increasing and competing bids being significant at conventional levels. When we compare *public target* status, we observe that the minor differences between the two subsamples are not statistically significant at conventional levels.

Overall, we find that there are significant differences between the cash/non-cash and asset sale/non-asset sale subsamples in Table 1 and Table 2, respectively, highlighting the importance of controlling for these variables in our empirical analysis.

III. Empirical Findings – Baseline Estimates

The M&A literature has identified a relation between the source of funds and a firm's chosen method of payment (Schlingemann (2004) and Martynova and Renneboog (2009)). In this section, we examine whether asset sale proceeds as a funding source affect the probability and intensity of using cash as means of payment in acquisitions. To do this, we regress both *cash payment* and *cash percentage* on *asset sale* and display the results in Table 3. In specifications (1) and (2), we examine whether asset sales affect the probability of selecting cash as the means of payment in acquisitions by using probit regressions where our dependent variable, cash payment, is a dummy variable that takes the value of 1 if the method of payment is 100% cash, and 0 otherwise. The parameters of the probit model are computed with the method of Maximum Likelihood Estimator (MLE). Specification (1) includes only the *asset sale* dummy, and in specification (2) we add the controls for bidder, deal, and industry characteristics. Consistent with our prediction, both specifications show a significantly positive relation between asset sale and the choice of cash as the method of payment at the 1% significance level. This result has a strong economic significance, as we show that asset sales increase the probability that bidder firms will use cash as the method of payment by 42.76% relative to the mean value of cash payment in our sample.[15]

[15] We calculate this by determining the marginal effect of asset sale on cash payment (15.32%) and dividing it by the mean cash payment for our sample (35.82%).

In specifications (3) and (4), we employ a fractional response model to examine whether asset sales affect the cash intensity in acquisitions. Our dependent variable, cash percentage, represents the percentage of cash as part of the total price offered by the bidder. Since cash percentage is a fractional response by definition and lies in the interval [0, 1], we follow Papke and Wooldridge (1996) and Karampatsas, Petmezas, and Travlos (2014) and use a Generalized Linear Model (GLM) Logit regression where the parameters of the model are obtained by the Quasi-Maximum Likelihood Estimator (QMLE). Specification (3) presents the results for the fractional Logit regression and only includes our main variable of interest, asset sale, while specification (4) includes, in addition, the same control variables included in specification (2). We find that our main variable of interest has a positive and significant coefficient at the 1% significance level. More specifically, we show that firms with an asset sale use approximately 20.38% more cash than those financing through some other means.[16]

We also observe that the coefficients of the control variables are generally similar in sign and significance to those found in prior M&A literature. More specifically, we find that size is positively associated with cash method of payment. We also show that the free cash flows variable carries a positive and significant coefficient at the 1% level, while cash reserves exhibit a negative relation to percentage of cash. Leverage, which captures firms' financial condition, also shows a positive and significant coefficient. Market-to-book is negatively related with the use of cash, consistent with the growth opportunities theory. We find that the KZ index, sigma, run-up, and relative size are negatively related with the use of cash in M&As. Further, we document that in hostile deals, deals with competing bids, and tender offers, cash is more likely to be the means of

[16] We calculate this from the results in specification (4) by determining the marginal effect of asset sale on cash percentage.

payment, while the target public status is negatively associated with cash means of payment. Lastly, we show that cash payments are more likely to happen within industries with higher concentration, as measured by the Herfindahl index.

In sum, our results in this section provide evidence that asset sales affect the choice of payment method in M&As, increasing the likelihood and intensity of cash in acquisitions.

*** Please Insert Table 3 About Here ***

IV. Controlling for Endogeneity

A. Instrumental Variable (IV) Approach

To this point, the analysis was based on the assumption that firms' choice to use an asset sale as a funding source is exogenously determined. However, one could argue that firms that make more acquisitions and grow larger are more likely to be candidates to sell assets (see for instance Kaplan and Weisbach (1992)), which could raise reverse causality concerns. Additionally, as shown in Table 2, there are significant differences in firm- and deal-specific characteristics between the asset sales and non-asset sales groups, suggesting that the use of proceeds from asset sales could be determined endogenously. A primary cause of endogeneity is that of omitted variables in which there is a correlation between the explanatory variables and unobservable or omitted variables (Wooldridge (2002)). Many of the unobservable variables that could determine whether a firm engages in an asset sale may also make it more likely for the firm to use cash as the method of payment. Therefore, to alleviate concerns that the relation between asset sale and our acquisition-related dependent variables suffers from endogeneity bias, we implement a two-stage instrumental variable approach.

Because one of our dependent variables has a discrete nature (cash payment), and the other a continuous nature (cash percentage), and our endogenous explanatory variable, asset sale, is of a discrete nature, we apply the following econometric methodologies to control for endogeneity bias. In the case of cash payment we use: i) a Control Function approach to test for the existence of endogeneity; and ii) a Bivariate Probit model to further control for endogeneity. The two-step Control Function Approach, suggested by Wooldridge (2002) as a valid and simple test of endogeneity, first calculates the reduced model of an endogenous regressor as a function of instruments, like the "first stage" of Two Stage Least Squares (2SLS), and then uses the errors from the reduced model as an additional regressor in the structural model ("second stage"). If the coefficient of the included error is statistically significant, then the null hypothesis of no endogeneity is rejected, confirming the existence of endogeneity. Additionally, the Bivariate Probit model is an approach used to control for endogeneity that is most appropriate when both dependent and explanatory variables are discrete, as in our case. This approach uses Maximum Likelihood Estimation (MLE) and estimates the selection and structural equations simultaneously.

In the case of the cash percentage, which is a continuous variable, we employ: i) a Control Function approach similar to that in the cash payment test to identify endogeneity; and ii) the Instrumental-Variables (IV) Probit method as in Lee (1981) and Acemoglu et al. (2007) to control for any endogeneity. The IV Probit is similar to the 2SLS method, except that the structural regression is a GLM Logit model and not an OLS linear regression.

In order to apply the approaches discussed above, the use of an instrument is critical; that is a variable which is found to be a determinant of whether the bidder sells an asset, but at the same time is not related with our dependent variables (cash payment and cash percentage) in our structural models. Our chosen instrument, *industry distress*, represents the fraction of the firms in

the same industry as the seller (bidder), based on the three-digit SIC code, with a credit rating level that is below the investment grade credit rating (i.e., BBB-) in the year of the asset sale. Acharya, Bharath, and Srinivasan (2007) use below investment grade industry credit ratings as a proxy for industry distress and find that firms from industries in distress are more likely to engage in restructuring activities. Similarly, Gopalan and Xie (2011) find that firms in distressed industries are more likely to sell assets. We therefore expect a positive relation between the industry distress instrumental variable and asset sales. Further, we have no reason to expect that the industry-level credit rating will have any effect on the method of payment chosen in the acquisition made by the bidder subsequent to the asset sale,.[17]

Table 4 reports the results of the cash payment analysis. Specification (1) presents the reduced probit model measuring the likelihood of an asset sale. Our instrument, *industry distress*, is statistically significant at the 1% level and has the expected sign. This provides some initial credibility on the validity of the *industry distress* indicator as our instrument for asset sales. Additionally, we follow Stock and Yogo (2002) to examine the strength of this instrument and use the weak identification test critical values for the "maximal IV Wald size distortion".[18] In the lower panel of Table 4, we report the F-test for the significance of the excluded instrument in the first-stage regression, and the critical value for the desired 10% size distortion on a nominal 5% Wald

[17] Similarly, Karampatsas, Petmezas, and Travlos (2014) used the fraction of firms with credit ratings in the same 3-digit SIC industry group as an instrument for their examination of the effect of credit ratings on the choice of payment method.

[18] Nichols (2007) suggests these identification statistics only apply to the linear case. In our case, the closest linear analog for the first stage is either a Linear Probability Model (LPM) or a Linear Regression Model and for the second stage is a Linear Probability Model (LPM).

test, computed by the Limited Information Maximum Likelihood (LIML) estimator. We find that the F-test is larger than the corresponding critical value. Consequently, we can reject the null hypothesis of the instrument's weakness.

In specification (2), the included error, *residual asset sale*, is statistically significant at the 1% level. This finding implies that the variable, *asset sale*, is endogenous to our model, which identifies the need to control for a potential endogeneity bias. Specification (3) displays the results from the structural equation of the bivariate probit analysis. In the lower panel of Table 4, we report the Wald test of endogeneity, which further confirms the existence of endogeneity. However, after controlling for this in the bivariate probit, we find that our main result is robust to endogeneity concerns, and that our main variable of interest, *asset sale*, carries a positive and significant coefficient at the 1% level, even after controlling for endogeneity.[19]

*** Please Insert Table 4 About Here ***

As stated previously with regard to the correction for endogeneity in the case of cash percentage and asset sale, we apply the Control Function and IV Probit methods, with a Probit model measuring the likelihood of an asset sale being the reduced form, and GLM Logit equations being the structural forms. Table 5 shows the results for this analysis. Again, in the reduced model in specification (1), our instrument is statistically significant at the 1% level with the expected sign. As before, the results from the identification statistics reject the null hypothesis of the instrument's weakness. In structural equation (2) we show that the included residuals are again significant, necessitating the need for further correction of our main variable of interest, *asset sale*.

[19] The reduced number of observations in specification (2) is caused by the elimination of variables that perfectly predict success or failure in the dependent variable along with their associated observations, which increases the numerical stability of the optimization process in probit models.

Specification (3) shows that the variable of interest, as predicted by the reduced model, is positive and statistically significant at the 1% level. Additionally, in the lower panel of Table 5, the results from the endogeneity tests (Hausman and Wald) confirm that the asset sale variable is endogenous to our model.

*** Please Insert Table 5 About Here ***

To conclude, we observe that even after controlling for endogeneity using the IV approach, our main variable of interest remains highly significant, confirming the validity of the original results found in Table 3. Overall, these findings support our hypothesis of a positive association between asset sale and the likelihood and intensity of using cash as a method of payment in acquisitions.

B. Propensity Score Matching

In this subsection, we further address the endogeneity issue. Our main estimates in previous tables could suffer from potential bias if it is found that firms that choose to acquire using the proceeds from an asset sale are fundamentally different from those which choose to pay with other funding sources. We therefore implement a propensity score matching (PSM) process following Drucker and Puri (2005) to match firms in our sample that engaged in an asset sale (treated) with firms exhibiting analogous characteristics but that did not engage in an asset sale (control). In particular, we calculate the average differences in cash payment and cash percentage between firms that engaged in asset sales and matched firms that did not engage in asset sales. In order to match firms, we calculate a one-dimensional propensity score, which is a function of firm- and deal-specific observable characteristics.

Table 6 reports the PSM results for our main regressions. We use one-to-one, 30-nearest-neighbors, 50-nearest-neighbors, and Gaussian kernel-based econometric matching estimators. When we implement each matching estimator and match each asset-sale-funded deal to those non-asset-sale-funded deals closest to the propensity score, which is a function of all the control variables used in Table 3, we find that the treatment effect of asset sales is significantly positive regardless of the matching estimator used. Our patterns are similar to our previous analysis as we find that firms that engaged in an asset sale are more likely to offer cash as a method of payment and that the percentage of cash offered is significantly higher than those that did not engage in an asset sale.

*** Please Insert Table 6 About Here ***

C. Impact Threshold for a Confounding Variable

As a last robustness endogeneity check, we follow Larcker and Rusticus (2010) and Karampatsas, Petmezas, and Travlos (2014) in investigating the possible impact of unobserved confounding variables using the methodology in Frank (2000). In particular, the omitted variables are most likely to affect our results when they are correlated with the *x* (endogenous) and *y* (dependent) variables. The Impact Threshold for a Confounding Variable (ITCV) approach allows us to determine the minimum correlations with an omitted variable required to change our results from statistically significant to insignificant. The higher (lower) the ITCV, the more robust (less robust) our results are to omitted variable concerns.

The ITCV for asset sale in relation to cash payment and cash percentage are presented in Table 7. In column (1), we show that the threshold value for asset sale in our cash payment analysis is 0.1288, implying that the correlations between asset sale and cash payment with an unobserved

confounding variable would each need to be about 0.3589 ($\sqrt{0.1288}$) for the result to be overturned. The ITCV appears strong enough to suggest that our main results are robust to omitted variable concerns. However, to assess the likelihood that a confounding variable exists, we use the impact of each control variable on the coefficient of asset sale as a benchmark, as shown in column (2). Similar to the ITCV, the impact of the control variables is defined as the product of the partial correlation between the *x* variable and the control variable and the partial correlation between the *y* variable and the control variable. In column (3) we also calculate the raw impact for each of the control variables, which is based on the simple correlations instead of the partial correlations and is a more conservative measure of impact. We find that all of our control variables' values in columns (2) and (3) are well below the threshold value for asset sale. Thus, given that we already have all commonly used controls as identified in the literature, we can have confidence in our estimate of the effect of asset sale on cash payment in acquisitions.

*** Please Insert Table 7 About Here ***

Column (4) presents the ITCV value for asset sale in the cash percentage analysis. Again we show a high threshold of 0.1813. As with the cash payment analysis when comparing this threshold to the impact and raw impact of the control variables found in columns (5) and (6), respectively, we find that the impact of the control variables are considerably lower than the ITCV value. This implies that our main result for cash percentage is robust to omitted variable concerns.

Overall, the results discussed in Section IV indicate that our primary results are robust, even after we consider potential endogeneity concerns.

V. Robustness Tests

A. Choice of Method of Payment with Target Firm Control Variables

In Table 8, we control for target firm characteristics known from the literature to affect the method of payment in M&As. Particularly, past research suggests that a target firm's size (Chemmanur, Paeglis, and Simonyan (2009)), target firm's leverage (Hansen (1987)), target firm's growth opportunities (Martin (1996)), and target firm's information asymmetry (Fishman (1989)) impact negatively the propensity of a bidder to make a cash payment. To control for these effects we add *target size*, *target leverage*, *target market-to-book*, and *target sigma*. Given the target firms' data availability, the analysis for this test is conducted for the public acquisitions sample only. We use a probit regression in specification (1) and a GLM Logit regression in specification (2) wherein specification (1) presents the results in which the dependent variable is cash payment and specification (2) shows the findings for cash percentage as the dependent variable. In support of our prior results, we are able to demonstrate a significant relationship for cash payment and cash percentage with asset sale. In both specifications, the asset sale variable continues to be positively associated with cash acquisitions with a coefficient that is statistically significant at the 1% level. We find that all of the target firm control variables are negative and statistically significant in, at least, one out of the two specifications. In summary, the results of this analysis provide additional evidence regarding the robustness of our primary findings and imply that asset sales are an economically important determinant of the payment decision in M&As.

*** Please Insert Table 8 About Here ***

B. Choice of Method of Payment, Corporate Governance, and Managerial Ownership

Corporate governance and managerial ownership have been shown to affect asset sales. For instance, Atanassov and Kim (2009) find that managers who are also major shareholders are less likely to sell assets. According to the authors, this is because managers are reluctant to reduce the private benefits associated with a larger asset base. Additionally, they find an increased likelihood of asset sales in weaker investor protection countries. Further, in their study of European M&As, Faccio and Masulis (2005) show that method of payment is tied to corporate governance and that bidders prefer cash when voting control of their dominant shareholder is threatened. Similarly, Amihud, Lev, and Travlos (1990) find that relatively large managerial ownership leads to a higher likelihood for that firm to finance acquisitions with cash rather than with stock. To better control for corporate governance and managerial ownership concerns that may potentially confound our results, we include several corporate governance mechanisms such as the *entrenchment index* (Bebchuk, Cohen, and Ferrell (2009)), *board independence* (Byrd and Hickman (1992)), *board size* (Yermack (1996)), *CEO/Chair duality* (Masulis, Wang, and Xie (2007)), and *director/officer ownership* (Amihud, Lev, and Travlos (1990)), as shown in Table 9. The only corporate governance that displays any significance is that of board size, which is negatively related with cash payment and cash percentage in both specifications. Importantly, after having controlled for various corporate governance/ownership measures, we find that our primary results remain unchanged.

*** Please Insert Table 9 About Here ***

C. Asset Sale Measurement Comparison

For all tests up to this point, we have used as our main variable of interest, *asset sale*, which is a composite of two primary measures of asset sale found in the literature. The one, *EM asset sale*, is determined by identifying firms that sold a business unit or other asset as reported in the SDC database and described in Edmans and Mann (2015). The other, *EK asset sale*, identifies asset sales from annual accounting and financial data as reported by COMPUSTAT and described in Eckbo and Kisser (2015). As a robustness check, we run our main regressions again to assess if we observe materially different results when using these two different asset sale measures.

*** Please Insert Table 10 About Here ***

Table 10 reports the results from these additional tests for cash payment and cash percentage, with models using *EM asset sale* in specifications (1) and (2) and *EK asset sale* in specifications (3) and (4). In all specifications, we find that the results remain strong and consistent with our main findings irrespective of which asset sale measure is used.

D. Other Auxiliary Tests

We also perform a number of sensitivity tests to further examine the robustness of our results. In particular: i) we exclude financial firms (6000-6999) and regulated utilities (4900-4999) from our sample; ii) we include equity and debt flows as other potential sources of funds in the regressions; iii) we also add measures of firm distress and financial constraints, which are commonly cited motivations for asset sales: in particular, we include the Altman Z score as in Altman (1968) to control for financial distress; we also add the Size-Age (SA) index as in Hadlock and Pierce (2010) and rating level as in Karampatsas et al. (2014) to capture further financial constraint concerns; iv) we include number of analysts, R&D/total assets and R&D/total sales as

alternative proxies for information asymmetry; v) we conduct additional tests where our main variables of interest require the proceeds from an asset sale to only cover 75% or 50% of the cash used in the deal, as opposed to our main asset sale variable which requires 100% coverage of cash used in the deal; vi) we further broaden our asset sale variable by requiring the asset sale proceeds to cover the entire deal value rather than just the cash portion of the deal; vii) we check for the existence of multicollinearity amongst our variables using Variance Inflation Factor (VIF) tests and confirm there are not any multicollinearity issues that would materially affect our estimates; viii) we introduce firm fixed effects to further control for unobservable firm characteristics performing linear regression analysis.

Altogether, in this section, we confirm that our main findings are robust and provide further evidence to substantiate our initial results that asset sales are an economically important determinant of method of payment in subsequent acquisition decisions.

VI. Conclusions

This paper provides new evidence on the reallocation of firm assets through the restructuring activities of asset sales and acquisitions. More specifically, we offer empirical confirmation of the role of asset sale proceeds in the choice of payment method in M&As. In particular, we show that asset sales have a strong positive relation with the choice of cash as the method of payment. Our results are robust even after controlling for potential endogeneity issues.

The findings of this paper imply that asset sale proceeds are an important source of funds for corporate investment, providing support for the pecking order theory by demonstrating the preference for internal funding sources over external sources (i.e., debt and equity issuance). Moreover, because of the increased probability to make cash acquisitions after asset sales, asset

sellers (bidders) are more likely to experience, at the announcement of an acquisition in the near future after the asset sale, the positive effects associated with the choice of cash as a method of payment, such as higher abnormal returns and the discouragement of rival bids.

Overall, these findings collectively suggest that asset sale proceeds are an important source of funds in M&As and an omitted variable for the determinants of the choice of payment method in M&As.

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APPENDIX

Variable Descriptions

Variable	Description
Panel A: Dependent Variables	
Cash Payment	A dummy variable that takes the value of 1 for deals where the method of payment is 100% cash, and 0 otherwise. The variable is created using data from Thomson Financial SDC.
Cash Percentage	The percentage of cash as part of the total price offered by the bidder to the target firm. This variable is created using data from Thomson Financial SDC.
Panel B: Measures of Asset Sales	
Asset Sale	A dummy variable that takes the value of 1 if the asset sale is either an EM asset sale as in Edmans and Mann (2015) as defined below, or an EK asset sale as in Eckbo and Kisser (2015) as defined below, and 0 otherwise. This variable is created using data from COMPUSTAT (for the EK asset sales) and Thomson Financial SDC (for the EM asset sales).
EM Asset Sale	A dummy variable that takes the value of 1 when the ratio of the asset sale value to the cash used in the deal is greater than 1, and 0 otherwise. Asset sale is a completed M&A transaction with the form of transaction being either *acquisition of assets* or *acquisition of certain assets*, where the acquisition technique field includes at least one out of *divestiture*, *property acquisition*, *auction*, or *internal reorganization*, and none out of *buyout*, *bankrupt*, *takeover*, *restructuring*, *liquidation*, *private*, *tender*, *unsolicited*, and *failed* similar to Edmans and Mann (2015). This variable is created using data from Thomson Financial SDC.
EK Asset Sale	A dummy variable that takes the value of 1 when the ratio of the asset sale value to the cash used in the deal is greater than 1, and 0 otherwise. Asset sale is calculated according to the formula: *asset sales = siv + min[ivstch,0] + min[ivaco,0] + sppe*. That is: i) the *sale of investments*, plus ii) the absolute value of the minimum of the *change in short-term investments* and 0, plus iii) the absolute value of the minimum of the *investing activities* and 0, plus iv) the *sale of property, plant, and equipment* as in Eckbo and Kisser (2015). This variable is created using data from COMPUSTAT.
Panel C: Firm Characteristics	
Size	Total assets at fiscal year-end. This variable is created using data from COMPUSTAT. In the regressions analysis we use the log(1+size).
Free Cash Flows	Operating income before depreciation, minus interest expense on debt, income taxes, and preferred and common dividends at the fiscal year-end, normalized by the book value of the firm's total assets at the previous fiscal year-end, as in Schlingemann (2004). This variable is created using data from COMPUSTAT.
Cash Reserves	Cash and short-term investments divided by total assets at fiscal year-end. This variable is created using data from COMPUSTAT.
Leverage	Total debt (long-term debt + debt in current liabilities) divided by total assets at fiscal year-end. This variable is created using data from COMPUSTAT.
Market-to-Book	The market value of equity (common shares outstanding * closing price at fiscal year-end) divided by the book value of equity at fiscal year-end. Similar to Fama and French, book value of equity is total shareholders' equity plus deferred taxes and investment tax credit minus the book value of preferred stock. In case this data is not available, shareholders' equity is calculated as the sum of common and preferred equity. If none of the two are available, shareholders' equity is defined as the differences of total assets and total liabilities. This variable is created using data from COMPUSTAT.
KZ Index	The KZ index is calculated with the formula: KZ index = -1.001909 x Cash Flows / $PP\&E_{(t-1)}$ + 0.2826389 x Q + 3.139193 x Debt / Total Capital + -39.3678 x Dividends / $PP\&E_{(t-1)}$ + -1.314759 x Cash / $PP\&E_{(t-1)}$, as in Lamont, Polk, and Saá-Requejo (2001). This variable is created using data from COMPUSTAT.
Sigma	The standard deviation of the bidding firm's market-adjusted daily returns from CRSP over the period beginning 205 and ending 6 days before deal announcement.
Run-up	Market-adjusted buy-and-hold returns of the firm over the period starting (-205, -6) days prior to the acquisition announcement from CRSP.
Panel D: Industry Characteristics	
Industry M&A Liquidity	Sum of acquisitions values for each year and three-digit SIC code divided by the aggregated assets of firms in the same three-digit SIC and year. This variable is created using data from COMPUSTAT.
Herfindahl Index	Sum of squares of the market shares of all firms sharing the same three-digit SIC, where market share is defined as sales of the firm to the aggregated sales of the industry. This variable is created using data from COMPUSTAT.

Panel E: Deal Characteristics	
Relative Size	The ratio of the deal value (from Thomson Financial SDC) to the bidder market value of equity 4 weeks prior to the acquisition announcement (from the Center for Research in Security Prices (CRSP) database).
Focus Increasing	A dummy variable that takes the value of 1 for intra-industry transactions, and 0 otherwise. Industries are defined at the 2-digit SIC level from Thomson Financial SDC.
Hostile Deal	A dummy variable that takes the value of 1 for deals defined as hostile or unsolicited, and 0 otherwise. This variable is created using data from Thomson Financial SDC.
Competing Deal	A dummy variable that takes the value of 1 for deals where there is a competing bidder, and 0 otherwise. This variable is created using data from Thomson Financial SDC.
Tender Offer	A dummy variable that takes the value of 1 for deals defined as tender offer, and 0 otherwise. This variable is created using data from Thomson Financial SDC.
Completed Deal	A dummy variable that takes the value of 1 for completed deals, and 0 otherwise. This variable is created using data from Thomson Financial SDC.
Public Target	A dummy variable that takes the value of 1 for deals where the target is a public firm, and 0 otherwise. This variable is created using data from Thomson Financial SDC.
Panel F: Instrumental Variable	
Industry Distress	The fraction of the firms in the same industry, based on the three-digit SIC code, with a credit rating level that is below the investment grade credit rating (i.e., BBB-) in the year of the asset sale. This variable is created using data from COMPUSTAT.
Panel G: Corporate Governance/Ownership Measures	
Entrenchment Index	Bebchuk, Cohen, and Ferrell (2009) entrenchment index from Institutional Shareholder Services. The index is the sum of binary variables concerning the following provisions: 1) classified boards; 2) limitations to shareholders' ability to amend the bylaws; 3) supermajority voting for business combinations; 4) supermajority requirements for charter amendments; 5) poison pills; and 6) golden parachutes.
Board Independence	The percentage of independent directors calculated as the ratio between the number of independent directors, and the board size from Institutional Shareholder Services.
Board Size	The number of directors composing the board of directors from Institutional Shareholder Services.
CEO/Chair Duality	A dummy variable that takes the value of 1 if the roles of CEO and Chairman of the board are not split, 0 otherwise. The variable is created using data from Institutional Shareholder Services.
Director/Officer Ownership	A dummy variable that takes the value of 1 if the sum of directors' and officers' ownership is greater than 5% during the firm year. This variable is created using data from Institutional Shareholder Services and ExecuComp.

TABLE 1
Sample Descriptive Statistics by Payment Method

Table 1 presents descriptive statistics for a sample of U.S. public and private acquisitions announced over the period between January 1, 1990 and December 31, 2014, with data drawn from the Thomson Financial SDC database. We report the mean, median, and number of observations for: bidder characteristics (Panel A), target characteristics (Panel B), and deal characteristics (Panel C). The sample is further classified by whether the Cash dummy value is equal to 1 or 0. Refer to Appendix for detailed variable descriptions. Statistical tests for differences in means and equality of medians for each characteristic between the two categories are also included.

	Full Sample (1)			Cash=1 (2)			Cash=0 (3)			Difference (*p*-value) (2)-(3)	
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
Panel A: Bidder Characteristics											
Asset Sale	0.102	-	39,556	0.238	-	10,176	0.087	-	18,230	0.000	-
Size	6,561.25	720.34	26,974	8,191.45	1,048.12	7,685	5,353.61	433.88	11,402	0.000	0.000
Free Cash Flows	0.061	0.103	24,014	0.110	0.117	7,112	0.013	0.077	10,627	0.000	0.000
Cash Reserves	0.167	0.077	26,920	0.167	0.089	7,676	0.200	0.097	11,360	0.000	0.015
Leverage	0.234	0.191	26,922	0.224	0.184	7,677	0.198	0.139	11,361	0.000	0.000
Market-to-Book	3.278	2.181	25,787	3.039	2.209	7,423	3.754	2.333	10,831	0.000	0.000
KZ Index	-2.601	0.920	26,973	-2.909	0.452	7,684	-3.369	0.276	11,402	0.007	0.028
Sigma	0.029	0.024	27,153	0.024	0.021	7,727	0.034	0.028	11,498	0.000	0.000
Run-up	0.116	0.023	23,578	0.082	0.019	6,931	0.170	0.042	9,804	0.000	0.000
Director/Officer Ownership	0.275	0.000	12,401	0.281	0.000	4,451	0.269	0.000	4,356	0.216	0.215
Industry M&A Liquidity	0.067	0.040	26,270	0.066	0.044	7,529	0.072	0.043	10,975	0.000	0.600
Herfindahl Index	0.127	0.087	26,448	0.136	0.094	7,579	0.118	0.082	11,036	0.000	0.000
Panel B: Target Characteristics											
Target Size	3,093.89	344.31	4,176	831.43	208.15	1,076	4,007.91	446.96	2,942	0.000	0.000
Target Leverage	0.198	0.137	4,163	0.142	0.068	1,069	0.219	0.166	2,936	0.000	0.000
Target Market-to-Book	2.476	1.649	4,111	2.300	1.612	1,060	2.572	1.671	2,893	0.017	0.255
Target Sigma	0.037	0.031	4,350	0.037	0.031	1,141	0.037	0.031	3,045	0.978	0.703
Panel C: Deal Characteristics											
Relative Size	0.186	0.065	27,091	0.140	0.049	7,709	0.254	0.102	11,475	0.000	0.000
Focus Increasing	0.557	-	39,556	0.564	-	10,176	0.596	-	18,230	0.000	-
Hostile Deal	0.010	-	39,556	0.015	-	10,176	0.010	-	18,230	0.000	-
Competing Deal	0.012	-	39,556	0.017	-	10,176	0.014	-	18,230	0.023	-
Tender Offer	0.025	-	39,556	0.063	-	10,176	0.016	-	18,230	0.000	-
Completed Deal	0.953	-	39,556	0.962	-	10,176	0.937	-	18,230	0.000	-
Public Target	0.162	-	39,556	0.164	-	10,176	0.240	-	18,230	0.000	-

TABLE 2
Sample Descriptive Statistics by Asset Sale

Table 2 presents descriptive statistics for a sample of U.S. public and private acquisitions announced over the period between January 1, 1990 and December 31, 2014, with data drawn from the Thomson Financial SDC database. We report the mean, median, and number of observations for: cash measures (Panel A), bidder characteristics (Panel B), target characteristics (Panel C), and deal characteristics (Panel D). The sample is further classified by whether the asset sales dummy value is equal to 1 or 0. Refer to Appendix for detailed variable descriptions. Statistical tests for differences in means and equality of medians for each characteristic between the two categories are also included.

	Full Sample (1)			Asset Sale=1 (2)			Asset Sale=0 (3)			Difference (*p*-value) (2)-(3)	
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
Panel A: Cash Measures											
Cash Payment	0.358	-	28,406	0.603	-	4,020	0.318	-	24,386	0.000	-
Cash Percentage	0.506	0.514	28,406	0.775	1.000	4,020	0.462	0.400	24,386	0.000	0.000
Panel B: Bidder Characteristics											
Size	6,561.25	720.34	26,974	13,644.59	1,489.73	3,832	5,388.35	650.03	23,142	0.000	0.000
Free Cash Flows	0.061	0.103	24,014	0.064	0.094	3,526	0.060	0.105	20,488	0.560	0.000
Cash Reserves	0.167	0.077	26,920	0.232	0.160	3,832	0.156	0.069	23,088	0.000	0.000
Leverage	0.234	0.191	26,922	0.193	0.133	3,832	0.241	0.203	23,090	0.000	0.000
Market-to-Book	3.278	2.181	25,787	3.345	2.307	3,764	3.267	2.153	22,023	0.266	0.000
KZ Index	-2.601	0.920	26,973	-5.512	-1.138	3,832	-2.119	1.174	23,141	0.000	0.000
Sigma	0.029	0.024	27,153	0.026	0.022	3,831	0.029	0.024	23,322	0.000	0.000
Run-up	0.116	0.023	23,578	0.075	0.002	3,483	0.123	0.027	20,095	0.000	0.000
Director/Officer Ownership	0.275	0.000	12,401	0.273	0.000	2,193	0.275	0.000	10,208	0.868	0.868
Industry M&A Liquidity	0.067	0.040	26,270	0.066	0.044	3,815	0.067	0.040	22,455	0.498	0.006
Herfindahl Index	0.127	0.087	26,448	0.111	0.075	3,823	0.130	0.089	22,625	0.000	0.000
Panel C: Target Characteristics											
Target Size	3,093.89	344.31	4,176	1,923.12	262.855	468	3,241.65	356.86	3,708	0.209	0.031
Target Leverage	0.198	0.137	4,163	0.163	0.087	468	0.202	0.145	3,695	0.000	0.000
Target Market-to-Book	2.476	1.649	4,111	2.254	1.682	458	2.504	1.646	3,653	0.107	0.671
Target Sigma	0.037	0.031	4,350	0.038	0.030	483	0.037	0.031	3,867	0.250	0.809
Panel D: Deal Characteristics											
Relative Size	0.186	0.065	27,091	0.085	0.030	3,825	0.203	0.074	23,266	0.000	0.000
Focus Increasing	0.557	-	39,556	0.570	-	4,020	0.556	-	35,536	0.096	-
Hostile Deal	0.010	-	39,556	0.004	-	4,020	0.010	-	35,536	0.000	-
Competing Deal	0.012	-	39,556	0.009	-	4,020	0.012	-	35,536	0.093	-
Tender Offer	0.025	-	39,556	0.041	-	4,020	0.023	-	35,536	0.000	-
Completed Deal	0.953	-	39,556	0.979	-	4,020	0.950	-	35,536	0.000	-
Public Target	0.162	-	39,556	0.167	-	4,020	0.161	-	35,536	0.310	-

TABLE 3
Choice of Method of Payment

Table 3 presents the results of probit regression analysis in specifications (1) and (2) and (GLM) Logit regression analysis in specifications (3) and (4). The dependent variable in probit models takes the value of 1 if the method of payment was 100% cash, and 0 otherwise. In (GLM) Logit analysis, the dependent variable is the percentage of cash used in the transaction. We use a sample of U.S. public and private acquisitions announced over the period between January 1, 1990 and December 31, 2014. Refer to Appendix for detailed variable descriptions. Year and industry fixed effects, whose coefficients are suppressed, are based on calendar year and Fama-French 49 industry classification dummies, respectively. The z-statistics reported in parentheses, for probit and (GLM) Logit analysis, are based on standard errors adjusted for heteroskedasticity and firm clustering. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Probit (1)	Probit (2)	GLM Logit (3)	GLM Logit (4)
Asset Sale	0.5657***	0.4812***	1.1274***	1.1380***
	(16.97)	(13.40)	(21.57)	(18.93)
Size		0.0428***		-0.0097
		(4.18)		(-0.61)
Free Cash Flows		0.3679***		0.7062***
		(4.87)		(6.58)
Cash Reserves		-0.1691		-0.5806***
		(-1.56)		(-3.87)
Leverage		0.2262**		0.5149***
		(2.53)		(3.86)
Market-to-Book		-0.0183***		-0.0498***
		(-3.68)		(-6.51)
KZ Index		-0.0004		-0.0049**
		(-0.25)		(-2.24)
Sigma		-13.6074***		-23.6554***
		(-10.63)		(-13.68)
Run-up		-0.1344***		-0.1559***
		(-5.41)		(-4.36)
Relative Size		-0.4608***		-0.2365***
		(-8.90)		(-4.16)
Focus Increasing		0.0003		-0.0222
		(0.01)		(-0.56)
Hostile Deal		0.4044***		0.8536***
		(3.22)		(4.65)
Competing Deal		0.0416		0.2429*
		(0.41)		(1.66)
Tender Offer		1.0490***		2.1936***
		(14.40)		(17.93)
Completed Deal		0.0062		0.3008***
		(0.09)		(3.26)
Public Target		-0.5259***		-1.0764***
		(-13.59)		(-19.89)
Industry M&A Liquidity		-0.1606		-0.3343
		(-0.85)		(-1.22)
Herfindahl Index		0.5002***		1.1143***
		(3.88)		(5.27)
Constant	-0.6797**	-0.5033*	0.2385	0.8264
	(-2.19)	(-1.67)	(0.54)	(1.37)
Year & Industry Fixed Effects	Yes	Yes	Yes	Yes
No. of Obs.	19,273	15,242	19,273	15,242
Pseudo R^2	0.0977	0.1762	0.1468	0.2332

TABLE 4
Endogeneity Control for Asset Sale and Cash Payment

Table 4 shows control function and bivariate probit results to test and control for potential endogeneity of asset sale. Specification (1) shows the reduced probit model measuring the probability of asset sales, with instrumental variables shown to impact asset sale likelihood. Specification (2) shows results from the structural regression of the control function approach. Specification (3) provides results from the structural regression of the bivariate probit analysis. The sample period is between January 1, 1990 and December 31, 2014 for the universe of U.S. publicly listed firms. Refer to Appendix for detailed variable descriptions. Year and industry fixed effects, whose coefficients are suppressed, are based on fiscal year and Fama-French 49 industry classification dummies, respectively. The z-statistics reported in parentheses are based on standard errors adjusted for heteroskedasticity and firm clustering. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Reduced (1)	Structural (2)	Structural (3)
Asset Sale		3.0491***	1.4597***
		(7.72)	(16.72)
Residual Asset Sale		-1.0345***	
		(-6.63)	
Industry Distress	0.7382***		
	(3.55)		
Size	0.1328***	-0.0285*	-0.0122
	(12.25)	(-1.90)	(-1.10)
Free Cash Flows	-0.0048	0.3572***	0.3354***
	(-0.07)	(4.75)	(4.76)
Cash Reserves	1.0556***	-0.7602***	-0.4494***
	(10.20)	(-5.59)	(-4.39)
Leverage	-0.0911	0.2702***	0.1959**
	(-0.99)	(2.99)	(2.33)
Market-to-Book	-0.0144***	-0.0113**	-0.0122***
	(-3.20)	(-2.32)	(-2.84)
KZ Index	0.0015	-0.0013	-0.0008
	(1.07)	(-0.91)	(-0.54)
Sigma	6.1187***	-16.9188***	-14.7231***
	(5.04)	(-12.42)	(-12.33)
Run-up	-0.1061***	-0.0817***	-0.0926***
	(-4.04)	(-3.12)	(-3.87)
Relative Size	-0.8370***	-0.1953***	-0.3266***
	(-8.16)	(-3.08)	(-6.55)
Focus Increasing	-0.0085	0.0078	0.0105
	(-0.31)	(0.29)	(0.40)
Hostile Deal	-0.2097	0.4856***	0.4043***
	(-1.35)	(3.98)	(3.42)
Competing Deal	-0.1977*	0.1483	0.1020
	(-1.69)	(1.45)	(1.07)
Tender Offer	0.3583***	0.8628***	0.8864***
	(5.11)	(11.12)	(12.28)
Completed Deal	0.1143	-0.0389	-0.0042
	(1.42)	(-0.58)	(-0.07)
Public Target	-0.0390	-0.4953***	-0.4042***
	(-0.94)	(-12.65)	(-10.40)
Industry M&A Liquidity	-0.3919*	-0.0092	-0.0538
	(-1.86)	(-0.05)	(-0.30)
Herfindahl Index	-0.3380**	0.6863***	0.5504***
	(-2.15)	(5.18)	(4.08)
Constant	-3.7542***	-0.2139	-0.7080***
	(-9.00)	(-0.70)	(-8.30)
Year & Industry Fixed Effects	Yes	Yes	Yes
No. of Obs.	20,702	15,238	15,242
Pseudo R	0.1329	0.1792	0.1581
F-test	17.18		
LIML Size of Nominal 5% Wald	16.38		
Wald Test			12.61
(p-value)			(0.00)

TABLE 5
Endogeneity Control for Asset Sale and Cash Percentage

Table 5 shows control function and IV probit results to test for potential endogeneity of asset sale on cash percentage. Specifications (1) shows the reduced regressions measuring the probability of asset sales, with instrumental variable shown to impact asset sale likelihood. Specifications (2) and (3) provide results from the structural regressions. The sample period is between January 1, 1990 and December 31, 2014 for the universe of U.S. publicly listed firms. Refer to Appendix for detailed variable descriptions. Year and industry fixed effects, whose coefficients are suppressed, are based on fiscal year and Fama-French 49 industry classification dummies, respectively. The z-statistics reported in parentheses are based on standard errors adjusted for heteroskedasticity and firm clustering. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Reduced (1)	Structural (2)	Structural (3)
Asset Sale		5.1882***	
		(9.46)	
Residual Asset Sale		-1.6227***	
		(-7.63)	
Asset Sale $_{(predicted)}$			4.5057***
			(8.97)
Industry Distress	0.7382***		
	(3.55)		
Size	0.1328***	-0.1171***	-0.0960***
	(12.25)	(-5.27)	(-4.45)
Free Cash Flows	-0.0048	0.6895***	0.6827***
	(-0.07)	(6.50)	(6.42)
Cash Reserves	1.0556***	-1.4622***	-1.3524***
	(10.20)	(-7.89)	(-7.39)
Leverage	-0.0911	0.5777***	0.5815***
	(-0.99)	(4.33)	(4.33)
Market-to-Book	-0.0144***	-0.0393***	-0.0418***
	(-3.20)	(-5.33)	(-5.42)
KZ Index	0.0015	-0.0064***	-0.0052**
	(1.07)	(-2.92)	(-2.42)
Sigma	6.1187***	-28.7167***	-27.1254***
	(5.04)	(-15.38)	(-14.82)
Run-up	-0.1061***	-0.0766**	-0.0966***
	(-4.04)	(-2.06)	(-2.63)
Relative Size	-0.8370***	0.1762**	-0.0229
	(-8.16)	(2.37)	(-0.36)
Focus Increasing	-0.0085	-0.0092	-0.0089
	(-0.31)	(-0.23)	(-0.23)
Hostile Deal	-0.2097	0.9486***	0.9461***
	(-1.35)	(5.29)	(5.37)
Competing Deal	-0.1977*	0.3929***	0.3564**
	(-1.69)	(2.69)	(2.44)
Tender Offer	0.3583***	1.9111***	1.8778***
	(5.11)	(15.08)	(14.61)
Completed Deal	0.1143	0.2224**	0.2400***
	(1.42)	(2.41)	(2.59)
Public Target	-0.0390	-1.0322***	-1.0455***
	(-0.94)	(-18.82)	(-18.78)
Industry M&A Liquidity	-0.3919*	-0.1155	-0.1116
	(-1.86)	(-0.42)	(-0.40)
Herfindahl Index	-0.3380**	1.3851***	1.3364***
	(-2.15)	(6.45)	(6.46)
Constant	-3.7542***	1.2288**	1.3338**
	(-9.00)	(2.15)	(2.42)
Year & Industry Fixed Effects	Yes	Yes	Yes
No. of Obs.	20,702	15,238	15,238
Pseudo R^2	0.1329	0.2360	0.2128
F-test	33.35		
2SLS Size of Nominal 5% Wald	16.38		
Hausman (Wald) Test			48.43
p-value			(0.00)

TABLE 6
Propensity Score Matching

Table 6 presents differences between cash payment and cash percentage for firms that engaged in asset sales (treated sample) and those that did not engage in asset sales (control sample) using propensity score matching. The sample period is between January 1, 1990 and December 31, 2014 for U.S. public and private acquisitions. Methods for matching are one-to-one, 30- and 50-nearest neighbors, and Gaussian kernel. *** indicates significance at the 1% level.

			One-to-one	30 Nearest	50 Nearest	Gaussian Kernel
Cash Payment	Treated	*mean*	0.6153	0.6153	0.6153	0.6153
	Control	*mean*	0.4128	0.4141	0.4121	0.4017
	Difference		0.2025***	0.2012***	0.2032***	0.2136***
Cash Percentage	Treated	*mean*	0.7861	0.7861	0.7861	0.7861
	Control	*mean*	0.5529	0.5491	0.5478	0.5386
	Difference		0.2332***	0.2370***	0.2383***	0.2475***

TABLE 7
The Impact of Unobservable Confounding Variables

Table 7 shows an evaluation of the impact of unobserved confounding variables based on Frank (2000). The ITCV, columns (1) and (4), is defined as the product of the correlation between the x-variable (asset sales) and the confounding variable and the correlation between the y-variable (cash payment or cash percentage) and the confounding variable. To assess the likelihood that such a variable exists, columns (2) and (5) show the impact of each independent variable on the coefficient of asset sales. The impact is defined as the product of the partial correlation between the x-variable (asset sales) and the control variable and the correlation between the y-variable (cash payment or cash percentage) and the control variable. Columns (3) and (6) show a more conservative measure of impact, which is the product of the simple correlation between the x-variable and the control variable and the simple correlation between the y-variable and the control variable. The sample period is between January 1, 1990 and December 31, 2014 for U.S. public and private acquisitions. Refer to Appendix for detailed variable descriptions.

	Cash Payment			Cash Percentage		
	ITCV (1)	Impact (2)	$Impact_{raw}$ (3)	ITCV (4)	Impact (5)	$Impact_{raw}$ (6)
Asset Sale	0.1288			0.1813		
Size		0.0129	0.0286		0.0035	0.0208
Free Cash Flows		-0.0004	0.0005		-0.0006	0.0007
Cash Reserves		0.0050	-0.0101		0.0040	-0.0120
Leverage		-0.0012	-0.0049		-0.0019	-0.0068
Market-to-Book		0.0016	-0.0006		0.0032	-0.0009
KZ Index		-0.0001	-0.0021		0.0005	-0.0004
Sigma		-0.0026	0.0121		-0.0039	0.0133
Run-up		0.0020	0.0025		0.0021	0.0029
Relative Size		0.0069	0.0195		0.0037	0.0144
Focus Increasing		0.0003	-0.0003		0.0003	-0.0003
Hostile Deal		-0.0003	-0.0005		-0.0005	-0.0005
Competing Deal		-0.0001	-0.0001		-0.0002	-0.0002
Tender Offer		0.0054	0.0042		0.0069	0.0045
Completed Deal		0.0000	0.0022		0.0004	0.0032
Public Target		0.0035	-0.0005		0.0050	-0.0008
Industry M&A Liquidity		-0.0001	0.0001		-0.0001	0.0002
Herfindahl Index		-0.0029	-0.0042		-0.0041	-0.0072

TABLE 8
Choice of Method of Payment with Target Firm Control Variables

Table 8 presents the results of probit regression analysis in specifications (1) and (2) and (GLM) Logit regression analysis in specifications (3) and (4). The dependent variable in probit models takes the value of 1 if the method of payment was 100% cash, and 0 otherwise. In (GLM) Logit analysis, the dependent variable is the percentage of cash used in the transaction. We use a sample of U.S. public and private acquisitions announced over the period between January 1, 1990 and December 31, 2014. Refer to Appendix for detailed variable descriptions. Year and industry fixed effects, whose coefficients are suppressed, are based on calendar year and Fama-French 49 industry classification dummies, respectively. The z-statistics reported in parentheses, for probit and (GLM) Logit analysis, are based on standard errors adjusted for heteroskedasticity and firm clustering. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
Asset Sale	0.5360***	1.4072***
	(5.39)	(10.01)
Size	0.1607***	0.1966***
	(4.66)	(3.99)
Free Cash Flows	0.7482***	1.1798***
	(2.70)	(3.42)
Cash Reserves	0.3868	0.2696
	(1.25)	(0.63)
Leverage	0.0588	0.4474
	(0.24)	(1.32)
Market-to-Book	-0.0443***	-0.0639***
	(-2.93)	(-3.32)
KZ Index	-0.0040	-0.0088
	(-0.91)	(-1.55)
Sigma	-19.5947***	-29.2280***
	(-4.45)	(-4.99)
Run-up	-0.2777***	-0.3449***
	(-3.02)	(-2.77)
Target Size	-0.3356***	-0.4677***
	(-7.79)	(-8.29)
Target Leverage	-0.8684***	-0.5467*
	(-3.74)	(-1.79)
Target Market-to-Book	-0.0504***	-0.0673***
	(-3.79)	(-3.75)
Target Sigma	-3.5280	-10.3006***
	(-1.38)	(-2.78)
Relative Size	-0.1980	0.2141
	(-1.49)	(1.39)
Focus Increasing	-0.0130	0.0360
	(-0.17)	(0.32)
Hostile Deal	0.5240***	0.9494***
	(3.03)	(3.62)
Competing Deal	-0.1068	0.0474
	(-0.72)	(0.23)
Tender Offer	1.2331***	2.5129***
	(12.26)	(16.16)
Completed Deal	-0.2351*	-0.1083
	(-1.88)	(-0.61)
Public Target	0.2844	0.3040
	(1.18)	(0.78)
Industry M&A Liquidity	0.7581	0.9058
	(1.45)	(1.32)
Herfindahl Index	0.9327**	1.8079***
	(2.57)	(3.57)
Constant	0.6354	1.8485**
	(1.00)	(2.41)
Year & Industry Fixed Effects	Yes	Yes
No. of Obs.	2,387	2,402
Pseudo R^2	0.3781	0.3764

TABLE 9
Choice of Method of Payment, Corporate Governance, and Managerial Ownership

Table 9 presents the results of probit regression analysis in specification (1) and (GLM) Logit regression analysis in specification (2) with corporate governance and ownership measures included. The dependent variables in specifications (1) and (2) are cash payment and cash percentage, respectively. We use a sample of U.S. public and private acquisitions announced over the period between January 1, 1990 and December 31, 2014. Refer to Appendix A for detailed variable descriptions. Year and industry fixed effects, whose coefficients are suppressed, are based on fiscal year and Fama-French 49 industry classification dummies, respectively. The z-statistics, reported in parentheses, are based on standard errors adjusted for heteroskedasticity and firm clustering. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Probit (1)	GLM Logit (2)
Asset Sale	0.5671***	1.4738***
	(8.55)	(11.35)
Entrenchment Index	0.0196	0.0469
	(1.03)	(1.49)
Board Independence	0.1640	0.3936
	(1.00)	(1.54)
Board Size	-0.0225**	-0.0350**
	(-2.22)	(-2.10)
Director/Officer Ownership	0.0441	0.1559
	(0.74)	(1.61)
CEO/Chair Duality	0.1030	0.0452
	(1.22)	(0.33)
Size	0.0424**	-0.0286
	(2.03)	(-0.83)
Free Cash Flows	0.3295*	0.5852**
	(1.76)	(2.02)
Cash Reserves	-0.0231	-0.2953
	(-0.10)	(-0.85)
Leverage	0.4369**	0.7076**
	(2.30)	(2.26)
Market-to-Book	-0.0363***	-0.0695***
	(-4.05)	(-4.98)
KZ Index	-0.0029	-0.0089
	(-0.88)	(-1.49)
Sigma	-16.7269***	-36.2548***
	(-6.33)	(-8.57)
Run-up	-0.1538***	-0.2864***
	(-2.94)	(-3.60)
Relative Size	-1.0427***	-0.6930***
	(-7.75)	(-4.73)
Focus Increasing	-0.0833*	-0.1032
	(-1.73)	(-1.33)
Hostile Deal	0.4082*	0.8269**
	(1.90)	(2.26)
Competing Deal	0.0443	0.1291
	(0.29)	(0.58)
Tender Offer	0.9397***	2.1933***
	(9.54)	(13.00)
Completed Deal	-0.0269	0.1872
	(-0.20)	(0.96)
Public Target	-0.5051***	-1.1232***
	(-8.19)	(-12.09)
Industry M&A Liquidity	0.1938	0.0338
	(0.58)	(0.07)
Herfindahl Index	0.1659	0.8373**
	(0.80)	(2.14)
Constant	0.6100	2.1880***
	(1.27)	(3.01)
Year & Industry Fixed Effects	Yes	Yes
No. of Obs.	5,042	5,047
Pseudo R^2	0.2258	0.3152

TABLE 10
Asset Sale Measure Comparison

Table 10 presents the results of probit regression analysis in specifications (1) and (3) and (GLM) Logit regression analysis in specifications (2) and (4). The dependent variables in specifications (1) and (3) and (2) and (4) are cash payment and cash percentage, respectively. The variable of interest in specifications (1) and (2) is EM Asset Sale, and the variable of interest in specifications (3) and (4) is EK Asset Sale. We use a sample of U.S. public and private acquisitions announced over the period between January 1, 1990 and December 31, 2014. Refer to Appendix A for detailed variable descriptions. Year and industry fixed effects, whose coefficients are suppressed, are based on fiscal year and Fama-French 49 industry classification dummies, respectively. The z-statistics, reported in parentheses, are based on standard errors adjusted for heteroskedasticity and firm clustering. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Probit (1)	GLM Logit (2)	Probit (3)	GLM Logit (4)
EM Asset Sale	0.3945***	0.8882***		
	(5.06)	(6.78)		
EK Asset Sale			0.4720***	1.1186***
			(12.65)	(17.96)
Size	0.0621***	0.0311**	0.0440***	-0.0072
	(6.09)	(2.01)	(4.31)	(-0.46)
Free Cash Flows	0.3675***	0.7059***	0.3616***	0.6962***
	(4.90)	(6.57)	(4.81)	(6.51)
Cash Reserves	0.0024	-0.2316	-0.1764	-0.5935***
	(0.02)	(-1.49)	(-1.62)	(-3.94)
Leverage	0.2223**	0.5082***	0.2368***	0.5338***
	(2.48)	(3.80)	(2.64)	(4.00)
Market-to-Book	-0.0201***	-0.0536***	-0.0187***	-0.0506***
	(-3.89)	(-6.57)	(-3.74)	(-6.56)
KZ Index	-0.0000	-0.0039*	-0.0004	-0.0049**
	(-0.02)	(-1.79)	(-0.29)	(-2.27)
Sigma	-12.4828***	-21.1071***	-13.5585***	-23.5447***
	(-9.69)	(-12.25)	(-10.59)	(-13.64)
Run-up	-0.1478***	-0.1862***	-0.1350***	-0.1572***
	(-5.98)	(-5.26)	(-5.42)	(-4.39)
Relative Size	-0.5236***	-0.3587***	-0.4698***	-0.2526***
	(-9.82)	(-6.24)	(-9.06)	(-4.44)
Focus Increasing	0.0009	-0.0222	-0.0008	-0.0252
	(0.03)	(-0.57)	(-0.03)	(-0.64)
Hostile Deal	0.3957***	0.8318***	0.4050***	0.8541***
	(3.13)	(4.53)	(3.24)	(4.65)
Competing Deal	0.0176	0.1856	0.0409	0.2409
	(0.17)	(1.26)	(0.40)	(1.64)
Tender Offer	1.0664***	2.2202***	1.0563***	2.2057***
	(14.60)	(17.96)	(14.52)	(18.02)
Completed Deal	0.0127	0.3214***	0.0084	0.3067***
	(0.19)	(3.43)	(0.13)	(3.33)
Public Target	-0.5458***	-1.1036***	-0.5316***	-1.0871***
	(-14.13)	(-20.43)	(-13.71)	(-20.02)
Industry M&A Liquidity	-0.2153	-0.4549	-0.1481	-0.3075
	(-1.14)	(-1.64)	(-0.79)	(-1.12)
Herfindahl Index	0.4701***	1.0618***	0.4883***	1.0924***
	(3.71)	(5.19)	(3.79)	(5.17)
Constant	-0.0132	1.2718***	0.0487	1.3947***
	(-0.07)	(4.09)	(0.26)	(4.53)
Year & Industry Fixed Effects	Yes	Yes	Yes	Yes
No. of Obs.	15,242	15,242	15,242	15,242
Pseudo R^2	0.1642	0.2107	0.1749	0.2311