

Cross-Border Asset Sales

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Abstract

We examine a sample of cross-border and domestic asset sales by U.S. firms over the period 1998-2008. Higher valuation by foreign buyers due to their relative unfamiliarity with the U.S. setting, eagerness for market expansion, and more favorable market conditions can translate into larger returns for divesting firms. Liquidity-constrained cross-border sellers could also experience a higher revision in market valuation due to cash injections facilitated by the buyer's relatively favorable economic conditions. We show that sell-offs to foreign buyers yield higher positive abnormal returns compared to domestic sales. This incremental abnormal return is driven by liquidity-constrained sellers who elicit higher abnormal returns than unconstrained sellers in international transactions. Similarly, cross-border sellers seeking to raise cash, pay off debt, or reinvest enjoy significantly higher abnormal returns compared to sellers stating other reasons. Cross-border effects on seller returns generally dominate frequently cited factors for asset sale valuation, such as firm efficiency and industry familiarity. We do not find evidence of a cross-border premium for acquirers. However, foreign and domestic buyers of assets experience positive abnormal returns, albeit smaller than sellers' returns.

JEL classification: G31; G34

Keywords: Asset sales; Foreign Direct Investment; Focusing; Liquidity; Efficiency

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1. Introduction

Asset sales (divestitures) present a type of corporate restructuring that increasingly involves cross-border acquirers. The gradual integration and unification of the global marketplace have turned these events into building blocks of corporate strategy. Studies on asset sales often consider only transactions in the U.S. and exclude foreign firms¹. Within the broad spectrum of foreign direct investments (FDIs), international corporate finance research has focused primarily on cross-border mergers and acquisitions (M&As) and green-field investments.²

In this study we consider the intersection of these strands of literature by providing a direct comparison of the effects of cross-border asset sales and their domestic counterparts. Using a comprehensive sample of 294 asset sales initiated by U.S. firms to foreign buyers from 29 countries over the period of 1998 to 2008, we document higher abnormal returns for cross-border sales than for a sample of 1,165 asset transfers occurring between U.S. firms. This result persists after controlling for the level of efficiency and industry of the acquirer and after matching cross-border deals with domestic deals on time, industry, and size.

Strategic and financing reasons are behind corporate divestitures. Through asset sales companies can adjust to changing economic and political conditions. The sell-off could mark the terminating year of a lucrative project, with the proceeds used to reallocate financial and managerial resources to new investment opportunities. Firms might also initiate the sale to shift from industries with unfavorable outlooks to more promising areas. Companies that have been engaging in diversification strategies can divest to correct poor investment decisions and salvage a portion of their investment by selling to other firms who will exploit the opportunities more effectively. Foreign buyers in particular could pay a premium for an asset due to expectations of optimal use, a strong desire for market expansion, or because

¹ Datta, Iskandar-Datta, and Raman (2003) document significant gains for asset sellers in this scenario.

² Harris and Ravenscraft (1991), for example, investigate wealth changes for U.S. targets of foreign acquirers and find significantly larger increases than for U.S. firms acquired locally. Greenaway and Kneller (2007) provide a review of export strategies and foreign direct investment literature.

of misvaluation³ associated with market unfamiliarity.⁴ There may be additional advantages to a cross-border transaction from the seller's perspective. Selling assets may be an important strategy for poorly performing or liquidity-constrained firms seeking funds for debt repayment or investment. When the domestic economy is in a downturn, a cross-border sale may not suffer the usual liquidity discount because of the foreign buyer's potentially different economic conditions/cycles.

Beyond documenting a premium to sellers for cross-border asset sales, we investigate the reasons behind the divestitures as provided by the sellers and how they influence the market reaction to the asset sale announcement. In the cross-border subsample, firms that focus, and especially those firms that want to enhance their liquidity, enjoy greater positive abnormal returns. We attribute the second part of this finding to the market rewarding sellers capable of attracting the interest and financial resources of foreign buyers, particularly when the U.S. market is experiencing a downturn. However, if U.S. sellers introduce a foreign competitor in one of their focusing segments, the sale announcement fails to generate abnormal returns. Conversely, we find that the mean abnormal returns are higher for deals when the buyer operates in the same segment as the asset sold. One possible reason may be that the value gains from a superior fit between the buyer and the asset are partially passed on to the seller in the form of a premium in the selling price. We also consider the role of buyer efficiency in the way investors analyze the wealth generation of the divestiture. Foreign deals where buyers have above-median Tobin's Q generate the most value for sellers – about 2.6% mean abnormal market-model returns on the day of the announcement. This idea is supported by the large abnormal returns to sellers divesting assets to foreign buyers new to the U.S.

Lastly, we evaluate the effect of asset sales on acquirers. From the foreign buyer perspective, asset acquisitions may be an easier, smoother way to gain access to the U.S. market than the M&A

³ Even though the misvaluation itself can be positive or negative, the seller is more likely to accept a bid that is the result of overvaluation.

⁴ This “unfamiliarity” could relate to cultural, lingual, political, or social differences (among others) between business in two countries. In the imperfect global market, these biases exist and can influence the decisions of investors and firms (Sarkissian and Schill, 2004).

alternative where a higher level of disclosure and compliance may be necessary. We find that upon the announcement, purchasing firms achieve positive abnormal returns. However, the returns are similar across foreign and U.S. buyers and generally smaller in magnitude than those of the seller.

This evidence is consistent with the following scenario: the overall value gains (as measured by a size-weighted average of the abnormal returns to the seller and the acquirer) from a cross-border transaction are higher than those from a domestic transaction. However, a larger fraction of these value gains is passed on to the seller in the selling price. While the seller abnormal returns are significantly higher in the cross-border case, the abnormal returns of the acquirers are similar in the cross-border and domestic deals. These results emanate from the enhanced purchasing power of the acquirer due to favorable local market conditions and the bargaining power enjoyed by the seller due to the acquirer's goals for expansion. Sellers seeking liquidity experience some of the highest returns from cross-border asset sales, lending further support to the idea that countercyclical funding advantages of foreign acquirers are transferred to U.S. sellers. However, value gains to focusing cross-border sellers are mitigated by competition from a foreign acquirer with overlapping industry segments. The cross-border premium seems to dominate other common asset sale value explanations based on buyer efficiency and industry commonalities.

The paper proceeds as follows: Section 2 summarizes the applicable literature, and Section 3 presents the testable hypotheses. Section 4 describes the sample, Section 5 outlines the methodology, and Section 6 presents the results. Section 7 concludes.

2. Review of the literature

The two most closely related topics to our study in the literature are domestic asset sales and foreign acquisitions. From these studies we can make inferences on the impact of cross-border asset sales.

2.1. Domestic asset sales

In an asset sale, a parent company privately negotiates the sale of a subsidiary, a plant, or a line of business to an acquiring company that gains control over the asset. The proceeds of the sales will finance

the parent operations without any issuance of public securities and can also allow debt retirement or equity distributions. Voluntary asset sales are generally perceived as value-enhancing by investors. As a type of restructuring operation, asset sell-offs can serve as means of enhancing operating efficiency by allowing the asset to be transferred to a better use (Hite, Owers, and Rogers, 1987) or by allowing the company to refocus on core operations (John and Ofek, 1995). Mulherin and Boone (2000) attribute the creation of wealth for shareholders following the announcement of both acquisitions and divestitures (spin-offs, equity carve-outs, or asset sales) to realized synergies. Further, divestitures are associated with the advantageous reallocation of resources for the buying and selling firms. Maksimovic and Phillips (2001) find this to be the case after studying a sample of manufacturing plants transacting both partial (division sale) and complete (merger) asset sales.

Investor perception of an asset-selling firm may differ based on whether the proceeds from the sale are kept in the firm or distributed to bondholders and stockholders. This effect is explained in Lang, Poulsen, and Stulz (1995) whose conclusion is that asset sales may not be driven only by optimal resource allocation but also by agency costs. Hanson and Song (2006) also confirm the existence of this conflict by demonstrating that shareholders earn more from asset sales when their interests are aligned with those of the management team. Sell-offs can be related to significant, although uneven wealth generation for different stakeholders in the firm. Stockholders gain when divestitures are a part of a firm's focusing strategy, whereas bondholders benefit by the reduction of firm indebtedness via an asset sale (Datta and Iskandar-Datta, 1996).

A second set of reasons to justify corporate divestitures relate to firm liquidity and the presence of financing constraints. When the availability of external funds is scarce or inconvenient, assets sales represent a way of raising capital and financing new investment opportunities. Jain (1985) documents the positive effect of corporate sell-offs on sellers as well as buyers, following a period of poor performance for the sellers. Lang, Poulsen and Stulz (1995) show poor performers and highly leveraged firms to be the most active in the asset sales market, and Hovakimian and Titman (2006) find that the sensitivity of investments to proceeds from divestitures is greater for companies that are susceptible to financial

constraints. Hite, Owers, and Rogers (1987) examine asset sales not only in their traditional sense but also in the extreme case when the firm as a whole is voluntarily liquidated. The evidence, again, shows positive and abnormal returns upon the announcement of the restructuring, but the magnitude is more than six times greater for the liquidating firms. The conclusion is that value is being generated in response to asset undervaluation, resulting from information asymmetry and/or perceived organizational inefficiencies.

Interestingly, Benou, Madura, and Ngo (2008) show that asset sales in high-tech industries are associated with significantly higher returns for buyers than for sellers. The authors argue that this effect is due to asset distinctiveness and, therefore, a lack of numerous interested buyers. The payment method has also been shown to be important in the context of asset sell-offs. Slovin, Sushka, and Polonchek (2005) argue that asset acquirers use equity as a signaling device for their value and that of the asset they are buying. The results of the study show that equity-based considerations increase buyers' value, but not if cash is used as a means of payment.

2.2. Foreign M&As

Motives behind cross-border asset sales partially overlap with theories behind international mergers and acquisitions, some of which are outlined below. Morck and Yeung (1991) find evidence for the internalization theory, which posits that foreign acquirers have valuable intangible assets (managerial skill, goodwill, etc.) that need a larger geographic market to be fully exploited. The reverse internalization hypothesis proposed by Eun, Kolodny, and Scheraga (1996) postulates that successful foreign bidders make global use of the research and development (R&D) competencies of U.S. targets and thus are able to enjoy wealth increases, together with the U.S. target firm. Cakici, Hessel, and Tandon (1996) examine the wealth effect for shareholders of foreign acquirers and find positive abnormal gains when a U.S. firm is acquired by a foreign bidder but not vice versa. Harris and Ravenscraft (1991) document higher abnormal returns for cross-border acquisitions when compared to those transacted locally, associating these results with currency exchange fluctuations. They tabulate that 72% of their foreign deals occur between firms in related industries, and we expect a similar pattern when considering the relatively

smaller-in-scope asset sales. Bris and Cabolis (2008) find that foreign merger premiums are higher than for comparable domestic mergers when the acquirer is from a country with better investor protection. The authors specifically state that in the case of U.S. targets, international acquirers must follow U.S. laws such as the Williams Act. In an asset sale, this is not the case, as John and Ofek (1995) point out, allowing purchasers more flexibility in their offer and perhaps giving them a point of entry into the U.S. market relatively free from SEC scrutiny.

3. Development of hypotheses

Although analogies between assets sales and M&As allow mainstream theories in cross-border M&As to be applied to divestitures, there are fundamental differences that need to be considered. As opposed to mergers, asset sales are typically initiated by the seller and are subject to less scrutiny by shareholders, as management does not need to seek shareholders' and regulators' approval to the sale.⁵ Among others, Hege, Lovo, Slovin, and Sushka (2009) incorporate those differences in a two-sided asymmetric information model of asset sales that explains the relation between bidding/negotiating and wealth gains to buyers and sellers of divested assets. Prior research documents the positive effect of these transactions when asset sales occur within the same nation for divesting firms. We anticipate the announcement to be welcomed regardless of the buyer's nationality. In fact we expect cross-border divestitures to generate greater abnormal returns than domestic sales, even when accounting for previously studied sale valuation factors, as discussed below.

3.1. Value creation of foreign and domestic asset sales: The cross-border premium

3.1.1. Seller returns: Firm-level factors

The "fit hypothesis" discussed in John and Ofek (1995) states that the divested asset will generate more value as a part of the acquiring firm if this asset has a better fit with the acquirer's management skills and its existing assets. If some of this additional value is passed on to the seller in the form of a

⁵ In mergers, target firm shareholders have voting as well as appraisal rights. Appraisal rights are designed to protect dissenting shareholders from agency costs related to the transaction. They entail the determination, through a judicial hearing, of the fair value to be corresponded to dissenting shareholders by the acquiring company.

premium in the sales price, this will generate abnormal seller returns. In other words, the higher purchase price for the asset will translate into higher returns to the seller. A foreign purchase implies the transaction has a positive net present value for the foreign buyer, even after considering the initial geographic and cultural disadvantages inherent to a cross-border expansion. In other words, the acquired asset is very valuable to the firm outside of the U.S. borders who is willing to pay accordingly. The foreign acquirer valuation should also lead to higher seller-acquirer average gains for the asset sale.

Market unfamiliarity present in cross-border transactions⁶ may lead to mispricing of the asset by the buyer. Such a mispricing could take the form of undervaluation or overvaluation. In the case of transactions that actually go through, there is a greater chance for buyer overvaluation of the asset. This overpayment would, again, translate to higher seller returns, as it would when the buyer is looking to expand geographically and willing to pay a premium to meet this goal. Furthermore, agency problems in the form of empire-building managers and overinvestment could push cross-border bids even higher. As an asset sale is a voluntary action initiated by the seller, the company seeking a buyer could choose among the potential bidders the one that best suits its needs. As suggested in Dyck and Zingales (2004), investors may perceive in a foreign divestiture that the seller was very open in accepting bids to find a buyer from outside the U.S. and, therefore, optimized the benefits from the sale. Also, the foreign buyer could be seen as a "quality" company that will be paying a premium for the asset.

Idiosyncratic factors, like earnings management, could also drive divestitures. Asset sales are sometimes used by managers to smooth earnings since it is within the realm of their decision-making prerogatives *when* to sell the asset (Bartov, 1993). If we assume that foreign buyers and U.S. sellers have different fiscal year-ends and business cycles, then a foreign firm might pay more than fellow domestic firms who, along with the seller, are concerned with budget constraints and upcoming earnings announcements. This assumption is based on the evidence in Kamp (2002) of substantial diversity in fiscal year-ends across the world.

⁶ Black (1978) describes how information levels differ for foreign investors, and Brennan and Cao (1997) discuss how this asymmetry would also affect institutions with significant resources as well as individuals.

3.1.2. Seller returns: Macroeconomic factors

In an economic downturn or liquidity crisis, investors may compensate the seller for finding cash via a foreign buyer, who may not be suffering the same level of financial constraint as potential domestic bidders. As argued by Shleifer and Vishny (1992), during times of macroeconomic distress, selling firms are unable to get the full value of their assets since the best potential domestic buyers are probably under similar financial constraints at the same time. Cross-border asset sales could represent a countercyclical source of financing for divesting firms, particularly advantageous when the purchasing power of the foreign buyer is higher. If this is true, the bidding competitiveness of the foreign buyer should be closely related to favorable macroeconomic factors in their respective market. Specifically, the increasing costs of debt and equity financing (i.e., a lack of liquidity in the local market) might push firms to seek alternative ways of raising capital, and tapping into international capital through cross-border sales can be a valuable alternative. As the acquiring company does not have the same liquidity constraints as local potential acquirers, it should be able to offer a relatively higher premium than domestic competitors. This cross-border difference liquidity could be due to macroeconomic conditions, such as favorable exchange rate fluctuations (Froot and Stein, 1991, and Blonigen, 1997), interest rates, and investor sentiment levels. The combination of firm-specific and macroeconomic factors leads us to:

H1a. *A U.S. firm divesting an asset will experience higher positive abnormal returns when the buyer is a foreign firm instead of a domestic firm.*

3.1.3. Acquirer returns

From the foreign buyer's perspective, purchasing an asset in the U.S. is often associated with plans of product-line and geographic expansion. Although some of these arguments are also true for domestic buyers, the consequences are not as extensive as they are in international transactions. If the asset sale is followed by a joint venture (or another type of business agreement between the buyer and the seller), leads to greater synergies, or constitutes an increase in the international market presence for the purchaser, this may lead to larger buyer returns (Doukas and Travlos, 1988).

If favorable macroeconomic conditions such as an appreciating national currency relative to the U.S. dollar translate into benefits for sellers (as discussed above), it follows that foreign buyers could similarly experience greater returns due to an efficient use of capital. Also, if the purchase is not driven by agency-related reasons, the cross-border acquisition should allow foreign firms to realize valuable growth options that they would not otherwise have available in the local market for assets. Despite the value of the embedded growth option, if all these expected benefits are passed to the seller through the purchase price, then the acquirers' returns may be indistinguishable between domestic and cross-border transactions. Otherwise, if the foreign acquirer is not passing on all these expected benefits to the seller, we should observe that foreign buyers realize higher returns relative to their U.S. counterparts.

H1b. *Assuming the fraction of the deal value passed on to the seller through the selling price is the same, a foreign buyer purchasing a U.S. asset will experience higher positive abnormal returns than a domestic buyer.*

3.2. Stated reasons for the sale and liquidity constraints: Seller returns

Although most of the time asset sales generate a positive market reaction, Bates (2005) and Hovakimian and Titman (2006) show that use of the generated funds, and therefore the purpose of the operation, also matters. Gains from divestitures are sometimes more strongly attributed to strategies of focusing (John and Ofek, 1995) or financing (Lang, Poulsen, and Stulz, 1995). While this line of research looks at the motivation and the subsequent performance of the asset sale, it does not distinguish between cross-border and domestic transactions.⁷ In particular, we could argue that the identity of the asset buyer matters for the stock market reaction to this corporate event. Shleifer and Vishny (1992) propose the idea that industry-wide financial patterns are common. Despite globalization, national markets experience different economic trends relative to each other. Therefore, firms selling for liquidity reasons (such as reinvestment or capital restructuring) are unable to get the full value of their assets since the domestic potential buyers are most probably under similar financial constraints at the same time. Foreign acquirers

⁷ Although they do not investigate differences related to the purchasing firm's nationality, 17% of the buyers in John and Ofek's (1995) sample are foreign firms.

represent a valuable alternative in this scenario. Capable of exploiting favorable conditions in their respective markets, acquirers from outside of the U.S. can have a countercyclical competitive edge over domestic buyers and thus be more capable of executing these purchases. They may even be capable of paying an extra-premium to acquire the asset if they are driven by motives such as geographical market expansion. This logic leads to the second testable hypothesis:

H2a. *A U.S. firm divesting an asset for liquidity reasons to a foreign buyer will elicit higher abnormal returns than a U.S. firm divesting to a domestic buyer.*

While asset sales represent an organic way for firms to move towards better investment opportunities, they could also be used by liquidity-constrained firms to rebalance their capital structure. The marginal effect of a liquidity injection on the probability of default should increase in the ex-ante level of financial constraint of the seller. Therefore, asset purchases made possible by countercyclical advantages of foreign buyers could be a boon to financially constrained sellers. Relatively healthier divesting firms would not experience the same positive effect. We then expect:

H2b. *A liquidity-constrained U.S. firm divesting an asset to a foreign buyer will have higher abnormal returns than a financially healthier U.S. firm executing a similar cross-border deal.*

3.3. Focusing sellers in the presence of competition from foreign buyers

For selling firms planning to focus their operations, we need to consider the possibility that the foreign buyer, now with a stronger presence in the U.S., may provide additional competition in the segments where the seller will remain. The argument would not apply to a domestic buyer present in the focusing market since they would already be a well-known competitor of the seller. As an example consider a U.S. appliances manufacturer wishing to sell its refrigerator division and to focus on laundry appliances. The asset is sold to a foreign firm without a strong presence in the U.S., who also produces laundry appliances. Could the increased U.S. market exposure for the international purchaser signal increased competition for the seller in its remaining business lines? Hypothesis three states:

H3. *The positive abnormal returns experienced by a focusing U.S. firm selling an asset to a foreign firm will be lower if the foreign firm operates in the industry segment(s) in which the U.S. firm will be focusing.*

3.4. Buyer efficiency and seller returns

Managerial efficiency measured by the firm's Tobin's Q has been shown to be of significant importance in the context of asset sales. Datta, Iskandar-Datta, and Raman (2003) find that asset sales that involve well-managed buyers but poorly-managed sellers are most conducive to value creation. The authors argue that more skilled managers of purchasing firms are more likely to acquire wealth-generating assets. That not only asset sales but also asset purchases are driven by efficiency is confirmed theoretically and empirically by Warusawitharana (2008). We add an additional dimension to our analysis by considering the foreignness of the acquirer. We theorize that for a U.S. firm divesting an asset, nationality is more important than efficiency when it comes to assessing the impact on the seller. In other words, the buyer's foreignness affects the seller's returns more than the buyer's efficiency (measured by Tobin's Q). If the foreign firm is efficient, it should pay the premium for its foreignness (as outlined in H1), and also, consistent with the "fit hypothesis", a portion of the efficiency gains from the purchase will be imparted to the seller via the willingness of the buyer to pay a higher price. Even if the foreign firm is inefficient, it may still be able to outbid domestic firms due to more favorable conditions in the home market (i.e., higher liquidity, appreciating currency, etc.) It could also pay more than it should due to agency problems relating to inefficiencies and market unfamiliarity, whereas an efficient domestic firm would be less likely to overpay. These motivations give rise to the following hypothesis:

H4. *Abnormal returns to sellers based on buyer nationality and efficiency will be ordered from highest to lowest as:*

- 1) Cross-border asset sales to high-Q acquirers*
- 2) Cross-border asset sales to low-Q acquirers*
- 3) Domestic asset sales to high-Q acquirers*
- 4) Domestic asset sales to low-Q acquirers*

3.5. Intra-industry and inter-industry deals: Seller returns

In regards to the firms' business segments, we postulate for a U.S. firm divesting an asset, the buyer's foreignness affects the seller's returns more than the buyer's industry presence. A foreign firm may pay a premium to the seller for the asset if it is present in the industry already and again sees the purchase as an optimal "fit". However, a foreign firm new to the industry may be entering the market as part of empire-building, or may have problems valuing the asset correctly and overpay, especially if they are not familiar with the U.S market. Correspondingly, we would like to test the following proposition:

H5. *Abnormal returns to sellers based on buyer nationality and the industry of the buyer and the divested asset will be ordered from highest to lowest as:*

- 1) Cross-border intra-industry asset sales*
- 2) Cross-border inter-industry asset sales*
- 3) Domestic intra-industry asset sales*
- 4) Domestic inter-industry asset sales*

4. Data and sample description

We use Thomson One Banker's Deals Analysis module to identify cross-border asset sales. Financial market returns are collected from CRSP for U.S. traded companies and from DataStream for non-U.S. firms. The sample period covers January 1998 to December 2008. We choose to start at this time since it coincides with the adoption of SFAS 131⁸ which regulates segment disclosure. The divestitures that comprise the sample are friendly and classified as either acquisition of assets or acquisition of certain assets. These include both operating and non-operating assets, whereas spin-offs and privatizations are excluded from the sample. All deals with a value of more than one million dollars where the divesting and the acquiring are not private firms are part of the sample. It is also required that the immediate parents of the divesting firm and the acquirer are publicly traded firms. All sold assets are

⁸ Statement of Financial Accounting Standards No. 131 of the Financial Accounting Standards Board. The Statement regulates "Disclosure about Segments of an Enterprise and Related Information" and is effective since December 15th, 1997.

located in the U.S.⁹ Additionally, we select only cross-border deals where the seller is a U.S. firm and the acquirer is outside of the U.S. Asset sales due to bankruptcy are excluded from the sample. A search for transactions with these conditions yields 585 deals. The same procedure is applied to construct a control sample where both the target and acquirer are U.S. firms. The domestic sample consists of 2,305 deals. We excluded forced sales by companies going through bankruptcy, as reasons behind those sales are known to be different from those performed by firms in good standing (Ofek, 1993). In order to be sure that the selected deals are truly cross-border, we (sometimes manually) double-check that the target immediate parent's country of incorporation is the U.S. After removing financial firms (SIC codes between 6000 and 6999), the sample is reduced to 403 and 1,661 deals, respectively.

Additionally, we check for press releases and only retain deals for which there are public announcements. We use Lexis-Nexis to identify the deals that are publicly announced. After accounting for availability of press releases and sufficient financial market data, including usable seller returns, the cross-border sample contains 294 deals and the domestic sample has 1,165 deals. Fig. 1 shows the distribution of the number of asset sales and their value over the sample period for the main (cross-border) and domestic (U.S. to U.S.) samples. These deals are executed by 230 foreign firms and 814 U.S. firms, respectively. Although generally the two samples move together, foreign divestitures were noticeably more prevalent in the 2000-2002 period.

The sample of cross-border and domestic deals is described in Table 1. Panel A details the number of asset acquisitions per acquirer country of incorporation and per year. The greatest number of deals is done by companies from the United Kingdom, followed by Canada and Germany, respectively. Also, about a quarter of the foreign acquirers are cross-listed in the U.S. and traded on one of the major stock exchanges. The year of 2000 leads in the number of deals executed (47). Panel B displays the breakdown of deals per industry based on macro-industries. More than half of the deals are within manufacturing, followed by the service industry. In compliance with the reverse internalization

⁹ Studies have been done on U.S. multinational companies selling assets located abroad: Gleason, Mathur, and Singh (2000) and Mathur, Gleason, Singh (2006), for example.

hypothesis, 63 percent (42 percent) of our cross-border (domestic) sampled asset sales occur in industries containing traditionally high R&D sectors.¹⁰ Panel C provides some descriptive statistics and comparisons of deal, buyer, and seller characteristics. As predicted by Warusawitharana (2008), the firms purchasing assets are more profitable than those divesting, particularly in the cross-border sample.

Thomson One Banker is the source of financial information and business segments, and Tobin's Q is calculated using these data. We follow Datta, Iskandar-Datta, and Raman (2003) and compute its value by summing book value of assets and market capitalization, subtracting book value of equity, and then dividing the difference by the book value of assets. Business segments are from Worldscope, where the number of reported segments can be as high as ten. Press announcements and purpose descriptions from Lexis-Nexis and Thomson One are used to collect information on the reasons why companies decide to divest their assets. We categorize these in eight main groups.¹¹ In order of prevalence in the foreign sample, companies name the following reasons: 1) focus; 2) synergies; 3) pay off debt; 4) raise cash; 5) increase shareholder value; 6) increase assets value; 7) cost efficiency; and 8) regulatory requirements.

At the macroeconomic level, we include the exchange rate of the U.S. dollar (from DataStream) as of the day of the event as a measure of buyer purchasing power. To control for the level of liquidity in the local market, we introduce as explanatory variables the spread on AAA U.S. corporate bonds (from FRED[®], Federal Reserve Economic Data) and the University of Michigan Investor Confidence Index, traditionally used as a proxy of investor sentiment.

In the subsample of deals where one of the stated goals of the sale is focusing and segment information is available, 61% of the time the foreign buyer operates in the seller's focusing segments based on a 2-digit SIC code. To make sure that the segment elimination has been reflected in the company's financial statements, we make the comparison between the buyer's segments in the year of the deal and the seller's segments in the year after the deal. In addition, we compare the overlap between

¹⁰ Two-digit SIC codes of 28, 35, 36, 38, and 73.

¹¹ Categorizing the information from Lexis-Nexis press releases and newspaper articles required some judgment. The appendix provides examples of the wording used to announce and motivate the sale.

segments of the buyer and of the target asset. In order to be sure that we are counting firms that are already operating in the asset's segment and are not a mere reflection of the deal itself, we use the buyer's segments from the year before the deal. In this 2-digit SIC code comparison, 72% of the deals have the acquirer operating in the sold asset's segment.

The dominant method of payment for cross-border as well as domestic deals is cash. Almost every deal in the sample includes a cash component, and 81% (74%) of cross-border (domestic) deals are paid by cash only. While the percentage of deals including stock consideration is comparable across subsamples (10% of cross-border versus 11% of domestic deals), the number of deals in which the buyer is assuming part of the seller's liabilities is significantly larger in the domestic sub-sample (9% of cases versus 4%).

5. Event study methodology

For the event study analysis, we identify day zero as the announcement date of the sale as reported by Thomson One Banker. In those instances in which the announcement is made public on a non-trading day, day zero is the first trading day after the announcement is made public. The estimation period is 254-days long. Similar to M&A deals, the occurrence of a corporate asset sale might depend on the performance of the company prior to the event (Mikkelson and Partch, 1986). Thus, pre-event returns used to estimate the event period forecast error may not constitute an unbiased estimate of what the security returns would be in absence of the event and should be used with caution. Following Masulis (1980), we mitigate the potential for a bias in the abnormal return estimation by ending the first half of the estimation period 46 days prior to the event and starting the second half 46 days after the event. The event period goes from 30 trading days before to 30 days after the event. Returns are trade-to-trade. We calculate market-adjusted and market model abnormal returns. Market-adjusted abnormal returns, or market-adjusted returns, are stock returns minus market index returns:

$$u_{it} = R_{it} - R_{mt}, \quad (1)$$

where R_{it} is the return of security i on day t , and R_{mt} is the CRSP equally-weighted market index.

Market model abnormal returns are

$$u_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt}). \quad (2)$$

The market model is estimated by ordinary least squares, and $\hat{\alpha}_i$ and $\hat{\beta}_i$ are ordinary least squares estimates of market model parameters from the estimation period.¹² Our main sample includes cross-border divestitures by U.S. firms with acquiring companies from 29 different countries. Dating the information arrival when selling and acquiring companies are traded in different financial markets can be problematic. The public announcement can be released in one country before the other or could occur when one or both markets are closed. To account for imprecision in dating the asset sale announcement and also for the speed at which the new information is impounded into prices, we calculate the cumulative abnormal returns (CARs) for three windows around the announcement date (i.e., the event date, day zero): (-1,0), (-1,+1), and (-5,+5).

Including pre-event returns (i.e., -1 and -5 days prior to the event) controls for the potential leakage of information prior to the public announcement of the asset sale, while including post-event returns (i.e., +1 and +5 days after the event) controls for possible delays in the market reaction to the new information arrival. The cumulative abnormal return is calculated as

$$CAR_i(T_1, T_2) = \sum_{t=T_1}^{T_2} u_{it}. \quad (3)$$

The cumulative average abnormal return for a sample of N stocks is

$$CAAR(T_1, T_2) = \frac{1}{N} \sum_{i=1}^N CAR_i(T_1, T_2). \quad (4)$$

¹² Two target firms in our sample have dual classes of ordinary shares outstanding at the time of the deal. Following Lease, McConnell and Mikkelson (1983), we account for the different voting premium across different classes of shares by calculating the market reaction to the announcement on the value-weighted portfolio of the dual classes of shares.

Market model buy-and-hold returns are also used for part of the analysis. The buy-and-hold return is

$$BHAR_i(T_1, T_2) = \prod_{t=T_1}^{T_2} (1 + R_{it}) - \left[\prod_{t=T_1}^{T_2} (1 + \hat{\alpha}_i) + \prod_{t=T_1}^{T_2} (1 + \hat{\beta}_i R_{mt}) - 1 \right]. \quad (5)$$

To test for the significance of the abnormal returns we perform two parametric tests: the Patell test (Patell Z) (Patell, 1976) and the portfolio time series standard deviation t-test or “crude-dependence adjustment” (CDA) (Brown and Warner, 1980, 1985). We also employ two non-parametric tests: the generalized sign test (GST) (Cowan, 1992) and the rank test (Corrado, 1988).¹³

The Patell test is proven to be powerful when the condition of cross-sectional independence of abnormal returns is not violated (i.e., there is no time clustering).

The Patell test statistic for day t is

$$Z_t = N^{-1/2} \sum_{i=1}^N \left(\frac{M_i - 2}{M_i - 4} \right)^{-1/2} \frac{u_{it}}{s_{it}}, \quad (6)$$

where u_{it} is the estimated abnormal return, N is the number of securities in the sample on day t , M_i is the number of estimation-period non-missing returns in security-event i 's estimation period, and s_{it} is the estimated standard deviation of security-event i 's day t abnormal return, further defined below. Under the null hypothesis, if event-date standardized abnormal returns are independent across security-events, this statistic converges to standard normal.

For the market model, the estimated standard deviation of each u_{it} is

$$s_{it} = s_{i(est)} \left[1 + \frac{1}{M_i} + \frac{(R_{mt} - \bar{R}_m)^2}{\sum_{t=-172}^{-46} (R_{mt} - \bar{R}_m)^2 + \sum_{t=+46}^{+172} (R_{mt} - \bar{R}_m)^2} \right]^{1/2}, \quad (7)$$

where \bar{R}_m is the mean market-index return from the estimation period and

¹³ Campbell, Cowan, and Salotti (2010) investigate the properties of several commonly used parametric and non-parametric tests and find the non-parametric rank and generalized sign tests to be more powerful than common parametric tests, especially in multi-day windows. Their indication is to use non-parametric tests in conjunction with parametric tests to assure robustness in the results.

$$s_{i(est)} = \sqrt{\frac{1}{M_i - 1} \left[\sum_{t=-172}^{-46} (u_{it} - \bar{u}_i)^2 + \sum_{t=+46}^{+172} (u_{it} - \bar{u}_i)^2 \right]}, \quad (8)$$

where $\bar{u}_i = (1/M_i) \left[\sum_{t=-172}^{-46} u_{it} + \sum_{t=+46}^{+172} u_{it} \right]$.

For (-1,0), (-1,+1), and (-5,+5) event windows the Patell test statistic is:

$$Z_t = \left[(T_2 - T_1 + 1)N \right]^{-1/2} \sum_{i=1}^N \left[\left(\frac{M_i - 2}{M_i - 4} \right)^{-1/2} \frac{\sum_{t=T_1}^{T_2} u_{it}}{s_{it}} \right]. \quad (9)$$

The second parametric test is the portfolio time-series standard deviation test (CDA) (Brown and Warner, 1980, 1985). The test compensates for potential dependence of returns by estimating the standard deviation using the time series of sample mean returns from the estimation period. The test statistic for day zero is

$$t_{CDA} = \bar{u}_t / s(\bar{u}_t), \quad (10)$$

where \bar{u}_t is the equal weighted portfolio mean abnormal return on day t , i.e., $\bar{u}_t = (1/N) \sum_{i=1}^N u_{it}$, and the standard deviation of \bar{u}_t is

$$s(\bar{u}_t) = \sqrt{(1/254) \left[\sum_{t=-172}^{-46} (\bar{u}_t - \bar{\bar{u}})^2 + \sum_{t=+46}^{+172} (\bar{u}_t - \bar{\bar{u}})^2 \right]}, \quad (11)$$

where $\bar{\bar{u}} = (1/254) \left[\sum_{t=-172}^{-46} \bar{u}_t + \sum_{t=+46}^{+172} \bar{u}_t \right]$. If the u_{it} are normally, independently, and identically distributed, this test statistic is approximately standard normal under the null hypothesis. For the (-1,0), (-1,+1), and (-5,+5) event windows, the test statistic is

$$t_{CDA(T_1, T_2)} = CAAR(T_1, T_2) / \sqrt{(T_2 - T_1) \times s(\bar{u}_t)}. \quad (12)$$

The reported p-values for the two parametric tests are calculated using wild-bootstrapping (Cameron, Gelbach, and Miller, 2007) to account for non-normality in the distribution of the test statistic.

The first nonparametric test is Corrado's (1989) rank test. The security's time series of abnormal returns is transformed into their respective ranks. The rank statistic for day zero is

$$t_{rank} = \left[\left(\frac{1}{N_0} \sum_{i=1}^{N_0} k_{i0} \right) - \bar{k} \right] / s_k, \quad (13)$$

where k_{i0} is the rank of security-event i 's day zero abnormal return in security-event i 's combined 254-day estimation period and 61-day event period time series, \bar{k} is the expected rank (i.e., the empirical mean), and s_k is the time-series standard deviation of the sample mean abnormal return rank. The standard deviation, s_k , is estimated at the portfolio level from the combined 254-day estimation and 61-day event periods as

$$s_k = \left\{ \frac{1}{315} \left\{ \sum_{j=-172}^{-46} \left[\left(\frac{1}{N_j} \sum_{i=1}^{N_j} k_{ij} \right) - \bar{k} \right]^2 + \sum_{j=-30}^{+30} \left[\left(\frac{1}{N_j} \sum_{i=1}^{N_j} k_{ij} \right) - \bar{k} \right]^2 + \sum_{j=+46}^{+172} \left[\left(\frac{1}{N_j} \sum_{i=1}^{N_j} k_{ij} \right) - \bar{k} \right]^2 \right\} \right\}^{1/2}. \quad (14)$$

The rank statistic converges to standard normal as the number of securities in the portfolio increases.

The second non-parametric test is the generalized sign test by Cowan (1992). The null hypothesis of the generalized sign test is that the proportion of day zero abnormal returns having a particular sign is equal to the proportion in the estimation period. For negative seeds, we test the null of a non-negative sign; for positive seeds, we test the null of a non-positive sign. The number expected is based on the fraction of positive abnormal returns in the 254-day estimation period for a sample of N security-events,

$$\hat{p} = \frac{1}{N} \sum_{i=1}^N \frac{1}{M_i} \left[\sum_{t=-172}^{-46} S_{it} + \sum_{t=+46}^{+172} S_{it} \right], \quad (15)$$

where $M_i \leq 254$ is the number of non-missing returns in the estimation period for security-event i and

$$S_{it} = \begin{cases} 1 & \text{if } u_{it} > 0 \\ 0 & \text{otherwise} \end{cases}. \quad (16)$$

The test statistic uses the normal approximation of a binomial distribution with parameter \hat{p} . The generalized sign test statistic is

$$Z_G = \frac{w - N\hat{p}}{[N\hat{p}(1 - \hat{p})]^{1/2}}, \quad (17)$$

where w is the number of stocks in the event window for which the abnormal return, or the cumulative abnormal return is positive.

6. Results

6.1. Value creation of foreign and domestic asset sales: The cross-border premium

6.1.1. Univariate analysis of the abnormal returns for selling firms

Table 2A reports the sellers' abnormal returns upon the announcement of the cross-border (Panels A and B) and domestic (Panels C and D) asset sales. On the event date, the average market-adjusted abnormal return is 2.88% for the cross-border sample and 1.51% for the domestic sample. Similarly, the average market model abnormal return is 2.88% for the cross-border sample and 1.52% for the domestic sample. Cumulative abnormal returns over multi-day windows are also significant and larger for cross-border sales. Abnormal returns are highly significant in both cases, and the mean difference is significant at the 5% level (see Table 3). To account for the different sample size and deal characteristics across the domestic and cross-border transactions, we also perform an event study on a sub-sample of cross-border deals matched with a random sample of domestic deals. To address cross-sectional differences between cross-border and domestic deals, Table 2B reports results based on a control sample of domestic deals. The matching procedure is based on three criteria; the domestic deals should: (1) occur within the same industry, as identified by the first two-digit of the SIC code, (2) be announced in a period within +/-340 days from the announcement date of the cross-border deal, and (3) have a dollar-value within +/-50% of the size of the cross-border deal. Among domestic deals satisfying the three matching criteria, we select the one closest in dollar-value to the matched cross-border deal. Following this procedure we are able to match 126 cross-border asset sale announcements with usable returns. For the matched sample, the average abnormal performance for cross-border deals is 3.30% for market-model and 3.38% for market-adjusted returns. The statistical significance is confirmed by parametric and nonparametric tests.

Domestic-matched deals do not exhibit any abnormal performance; normal market model and market adjusted returns are respectively 0.60% and 0.98%.¹⁴

Table 3 displays means, medians, and comparisons of returns for the cross-border and domestic asset sales. Market-model and market-adjusted returns on the day of the event are tabulated for the divesting firms and are consistently positive across both subsamples. Cross-border sell-offs yield higher mean and median returns, with the former being significantly greater at the 5% level.

6.1.2. Determinants of the cross-border premium

The univariate tests in Tables 2A, 2B, and 3 suggest that the market reaction to cross-border assets sales is positive, significant, and higher than that to domestic deals. The cross-sectional analysis in this section further examines the drivers of the observed extra-premium and draws conclusions on the theoretical arguments outlined in Section 3.

Models (1) to (3) of Table 6 are based on the full sample of cross-border and domestic deals. Models (4) and (5) of Table 6 are carried out on cross-border deals only. The dependent variable is the market model abnormal return for the seller on the day of the event. According to the discussion of H1 outlined in Section 3, the existence of an extra premium over and above the premium on domestic deals is partially justified by cross-border asset sales being a countercyclical source of financing. If our intuition is true, we should see the market reaction to cross-border asset sales increase when the purchasing power of the foreign buyer is higher.

In Models (1) to (3) of Table 6, cross border deals are identified by a dummy variable (Cross-border). The coefficient for the investor sentiment index (ICS) has a positive and significant impact on the premium paid overall (Model 1), but its cross-product with the Cross-border dummy, as well as its sign on the cross-border sample regressions (Model 5), is negative and significant. Also in line with our expectations, the cost of debt (Spread(AAA)) is positive and significant in determining the market

¹⁴ The random selection of control firms leads to the retention of duplicates in the control sample, generating a time clustering problem. As a robustness check, we perform the event study on the domestic matched sample removing duplicate matches (48 duplicates are removed), and results are qualitatively similar. Market model and market adjusted returns are 1.10% and 1.05% and are not significantly different from zero for the rank and generalized sign tests. Given the relatively small size of the sample, these tests are known to be more reliable than parametric tests.

reaction to cross-border sales. Results are consistent with external capital being more valuable in periods of financial constraint in the domestic market. Additionally, the increase in the R-squared from the overall sample to the cross-border sample is remarkable, moving from 11.98% in Model (3) to 54.23% in Model (5).

Similar to Harris and Ravenscraft (1991), we derive the relative currency strength of a foreign buyer by subtracting the exchange rate on the day of the sale announcement from the same currency's average exchange rate over our full sample period. This value is scaled by the average rate to facilitate comparisons across currencies. Model (5) shows some significance relating to this measure, and as expected, payment with relatively stronger currencies translates into higher returns for the asset's seller.¹⁵ We also calculate the difference of the exchange rate between the deal announcement day and three years prior. The currency fluctuation over this three-year period preceding the asset sale also shows significantly higher seller returns when the buyer's currency has risen in value. There appears to be a relation between foreign currency strength and greater asset sale benefits for sellers, but it is not as pervasive as that found in other foreign investment (Froot and Stein, 1991).

The method of payment conveys information about the value of the deal. While cash-only offers generate positive returns in the full sample, they are negatively related to the seller's returns in the cross-border sample. Consistent with Slovin, Sushka, and Polonchek (2005), considerations other than cash could be more valuable in cross-border transactions. Equity-financed asset purchases could signal that the seller believes the acquirer will be increasing shareholders' value with the investment. Also, paying with equity can signal a foreign firm with a good reputation that has sufficiently bonded with its shareholders (Burns, Francis, and Hasan, 2007).

The overlap of fiscal year ends of buyers and sellers is associated with higher seller returns for the full sample, although in univariate tests the effect seems to impact the U.S. deals more than the cross-border ones. Model (3) in Table 6 shows that when the deal occurred in the final fiscal month for both the buyer and the seller, significantly higher returns accrue to the seller. This suggests that the market rewards

¹⁵ For full sample models, exchange rate variable values are calculated to be zero for the domestic deals.

the seller for the gain in liquidity at its fiscal year end and for enticing the acquirers to purchase the asset at this crucial time of the year for reporting companies. Returns for the acquirer, however, are not significantly different based on this matched fiscal timing.

For all foreign acquirers (294), we determine whether the firm was operating in the U.S. prior to the deal. We check for U.S. presence in the following ways: (1) stock listing in the U.S. (2) geographic segment reported for U.S. (3) manually looked up via company website, internet, etc. If any of these indicated U.S. presence or operations, the firm was coded with a 1 in the U.S. presence variable (261 out of 294). Models (3) through (5) in the Table 6 include this regressor and its interactions with exchange rate and method of payment variables. When the foreign buyer is already present in the U.S. market, sellers experience lower returns. Inversely, a new entrant could pay more for the asset due to information asymmetry resulting from market unfamiliarity or a desire for geographical expansion, translating to higher seller returns. A higher purchase price in this scenario could also result from advantages in currency fluctuations, as indicated by the significant results for the exchange rate interactions, or favorable home market conditions.

6.1.3. Univariate analysis of the abnormal returns for purchasing firms

Foreign acquirers experience abnormal market-adjusted and market model returns of 1.18% and 1.10%, while domestic acquirers gain 0.80% and 0.84%, respectively, upon the announcement (Table 2C). These returns are smaller in magnitude when compared to average sellers' returns, but their significance is notable as research often shows no abnormal returns to purchasers of divested assets (e.g., John and Ofek, 1995). The mean and median returns to acquiring firms on the day of the sale are positive and significant in both subsamples, although no significant difference exists between foreign and U.S. buyers (Table 3).¹⁶ Despite their liquidity advantages and market expansion opportunities, foreign acquirers could be paying a premium to gain entrance to the U.S. market with an asset in place, lowering

¹⁶ Results, available upon request, show market-adjusted cumulative abnormal returns on the (-5;+5) days window being greater for foreign acquirers. This is consistent with cross-country differences in the timing of information arrival. The information might have been released locally prior to the event or might have been delayed due to problems such as thin trading, often present in non-U.S. markets.

their realized returns from the sale. In unlisted results we do find a marginally significant difference in day zero market-model mean returns between cross-border and domestic acquirers where synergistic reasons were announced as motivation for the sale. In these cases the higher returns of foreign purchasers most likely signify that these firms enjoy greater benefits from the global expansion of operations and increased market presence. The presence of synergistic value creation, particularly for cross-border asset sales, is also supported by the positive abnormal returns for both sellers and buyers, as in the M&A analysis by Seth, Song, and Pettit (2000).

Considering the overall value creation, size-weighted combined seller and acquirer returns in Table 3 are significantly higher for foreign deals, and sellers seem to be capturing the majority of the value created by the deal. Additionally, the significant difference between seller and buyer market model returns denotes an unequal distribution across subsamples. Sellers in cross-border deals average 1.88% higher returns than purchasers, whereas firms divesting to domestic buyers only experience a 0.61% premium. Although cross-border deals generate higher total returns, a greater fraction of the overall deal value is being passed on to the seller in international transactions. Therefore, we observe similar returns to acquirers regardless of whether they are domestic or foreign.

6.2. Stated reasons for the sale and liquidity constraints: Seller returns

6.2.1. Stated reasons for the sale

Panel A of Table 4 displays the announced reasons associated with the divestitures, as well as comparisons of mean and median event-day returns for the full sample and the cross-border and domestic subsamples. Although previous asset sale studies describe that a majority of firms provide no specific intent for divestiture proceeds (John and Ofek, 1995; Datta, Iskandar-Datta, and Raman, 2003), when considering both the planned use of funds and sale motivation, we find announced reasons for slightly more than 75% of our sample.¹⁷ The lower returns for firms that do not list their motivation for the asset

¹⁷ Our deal announcement search in Lexis-Nexis includes the Wall Street Journal, as well as other major publications.

sale indicate why this percentage may have grown in recent years. For the full sample (untabulated), event-day returns are smallest (0.56% mean and 0.15% median) for sellers not announcing a reason, and this comparison is significant at the 1% level for parametric and nonparametric tests.

Across groups, focusing emerges as the most frequently cited motivation for the sell-off. In focusing deals, the asset sale constitutes an exit strategy for the seller, which is abandoning the business segment by selling the asset to a foreign firm. The popularity of this stated intent corresponds with John and Ofek's (1995) finding that focusing firms experience the most significant positive returns. Although our hypothesis predicts that cross-border divestitures could reap greater benefits for reasons relating to financing opportunities, seller-focusing foreign deals exhibit significantly higher mean returns than their domestic counterparts (a difference of 2.04 percentage points).¹⁸

In line with our prediction regarding the benefits of U.S. firms divesting for liquidity reasons, cross-border asset sales performed in order to raise cash elicit the most significant average premium (5.47 percentage points higher) over similarly motivated domestic sales. Within the subsample of foreign deals, raising cash is the only announced intention that is significantly higher than other sale motivation categories for all mean and median statistical tests. We also find international sales where firms cite a desire to increase the value of their assets portfolio, potentially through pursuing growth opportunities and reinvestment¹⁹, yield one percentage point more than corresponding U.S.-to-U.S. divestitures (significant at the 10% level for equality-of-medians tests).

To further explore the impact of the liquidity generated from the asset sale, we combine a few motivation categories. Namely, we aggregate observations of divesting firms that state their general intention to raise cash with their potential uses of cash, such as paying off debt or increasing asset value through investment. We refine these respective categories by dropping all instances where increasing

¹⁸ In unreported results cross-border deals where both focusing and raise cash are listed as motivation for the sell-off lead to significantly higher returns than all other focusing deals, suggesting that the liquidity reason may be driving up the returns in these cases. We further explore this relation in the next subsection regarding our third hypothesis.

¹⁹ See category 6 in the Appendix.

asset value is listed alongside a desire to pay off debt, and vice versa. The significant mean and median event-day return differences between cross-border and domestic deals for these combined groups are shown in Table 4. They provide further support for the value of foreign acquirers' cash positions in generating extra wealth for the seller, as stated in Hypothesis 2. For a related regression analysis, we focus on all instances where raising cash or increasing asset value are listed without an accompanying desire to pay off debt. This binary indicator and its interaction with the cross-border sample variable are included in the first model of Table 7, and we find a positive relation between this interaction and seller event-day returns. This result suggests that these cross-border sellers have significant growth opportunities, allowing them to enjoy a premium from their sales of assets.

6.2.2. Liquidity constraints

Although we exclude all bankruptcies from the sample, we want to track firm performance before the sale to explore what occurs when sellers are financially constrained and thus eager to sell. In Panel B of Table 4, we utilize two different measures to track operating performance: negative net income and interest coverage ratio (calculated as EBIT over interest expense) less than one. Binary variables are respectively set to 1 when these traits are found in our selling firms in both of the two years prior to the asset sale announcement. In the cross-border sample, companies that realize negative net income in each of the two consecutive years before the asset sale have significantly higher announcement day returns (6.29%) than the rest of the sellers (1.80%), while the same effect is not observed in the domestic sample. As stated in Hypothesis 2B, this result follows if we consider that the benefits from asset sales would mean more to a constrained firm, especially one that is able to entice a buyer with potentially more relative wealth due to countercyclical economic conditions. If the interest coverage ratio is less than one in each of the two consecutive years before the sale, we observe a similar pattern in the cross-border (returns of 7.44% vs. 1.23%), and domestic subsample (an insignificant difference in mean returns of 0.82% between constrained and unconstrained firms). Additionally, we find significantly higher mean and median returns for financially constrained cross-border sellers compared to similar domestic firms (e.g., a mean difference of 5.23% for companies with low interest coverage ratios). These results support our

prediction that cross-border deals yield higher returns, particularly when liquidity needs are driving the divestiture.

We also investigate the market performance of the seller one-year prior to the sale. The timing of the sale with respect to the market valuation of the seller can be seen as an indicator of the contractual power of the seller setting the bid price for the asset to be sold. Our expectation is that sellers characterized by a better market valuation prior to the sale are likely to have more bargaining power at the time of the sale than firms that lagged the market prior to divesting the asset. Therefore, we expect the market reaction to the announcement to be stronger the better the seller performance prior to the sale.

We estimate the seller stock performance one year prior to the sale using market model returns. Following Canina, Michaely, Thaler, and Womack (1998), we avoid the documented bias in estimating the long term abnormal return with the CRSP equally-weighted index by opting for its value-weighted version. The event window starts 250 trading days (approximately one calendar year) prior to the asset sale announcement date (i.e., the original event date) and ends 6 trading days prior to the original event. Buy-and-hold returns (BHARs) are generally preferred over CARs for long-term windows.

In Model (2) of Table 7, we interact binary variables representing positive and negative BHARs with other binary indicators of cross-border divestitures and of firms facing financial constraints, measured by negative net income in the two years prior to the asset sale, as in Panel B of Table 4. Similar to the results of this panel, we find constrained firms selling to foreign acquirers experience the greatest returns, but only when prior stock performance has been positive.²⁰ This result suggests that higher pre-event performance can put sellers in a relatively stronger bargaining position, where they can extract an optimal price from the interested acquirer. Further, we find that domestic deals generate the highest returns to sellers when the divesting firm is unconstrained and has positive BHARs over the past year – the most favorable selling position of our categories. However, the liquidity advantages of foreign

²⁰ This classification represents the base group in the cross-border interactions, and all comparable combinations yield negative and significant coefficients.

acquirers allow financially constrained cross-border sellers with promising market performance to reap the largest returns.

6.3. Focusing sellers in the presence of competition from foreign buyers

Panel A of Table 4 indicates significantly higher mean abnormal returns for focusing U.S. firms that divest an asset to a foreign, rather than a domestic, acquirer. If the foreign buyer operates in an industry in which the seller will be focusing, the future value gains to the seller could be smaller due to greater competition. In this case, we anticipate that the announcement returns to the seller would be lower. We divide the sample according to whether the acquiring firm operates in the industry segment(s) (based on 2-digit SIC code) in which the U.S. firm will be focusing or not. As shown in Panel A of Table 5, the possibility that the foreign entrant would compete in one of the core segments of the selling firm affects the market reaction to the sale. Median returns are even negative when this is the case, and when compared to the 1.83% median returns of the foreign buyers without overlapping industry segments, the two percentage point difference is significant at the 1% level for the equality-of-medians statistical test. As expected, we do not find this effect in the domestic asset sale subsample.

Considering untabulated event-study results, focusing U.S. sellers engaging in cross-border divestitures seem to experience a positive and significant abnormal performance on day zero, as well as on (-1,0) and (-1,+1) windows, only when the acquiring firm is not operating in the same segment as the divesting firm, and thus not representing a direct threat to the seller. Abnormal returns on day zero are 2.85% and 2.70% from market-adjusted and market model returns, respectively, and are significant at 1% levels for the GST and rank test statistics. Deals in which the foreign entrant will be operating in the same segment as the selling firm do not produce abnormal returns, as the four test statistics considered fail to reject the null hypothesis.

6.4. Buyer efficiency and seller returns

The efficiency of the acquirer seems to play an important role in cross-border and domestic sales. Table 5, Panel B shows the returns for subsamples of cross-border (CB) and domestic deals (US) where the acquiring company has high (AH) and low (AL) Tobin's Q, based on being either above or below the

median value for the subsample. For a CBAH deal the mean return to the seller is 2.63%, compared to 1.14% in the USAL case. The difference is significant at the 10% level. Similarly, although to a lesser extent, the USAH deals generate significantly higher returns than the USAL sell-offs. As predicted, CBAH deals generate the largest positive mean abnormal returns of the four sub-groups. We do find higher median positive abnormal returns to the seller for low-Q foreign purchasers (CBAL) and speculate this could be the result of asset overvaluation due to information asymmetry from the buyer's perspective.

Table 7, Model (3) examines the impact of buyers' efficiency, as measured by Tobin's Q, on sellers' returns in a multiple regression analysis. The base group in the model is represented by domestic, low efficiency acquirers. The results generally follow the predicted ranking of returns in H4. Namely, all groups have higher returns than the base group, and seller returns in cross-border deals with efficient acquirers generate the highest value. These are followed by sell-offs to efficient domestic buyers, while the higher returns of cross-border deals transacted with inefficient buyers do not exhibit statistical significance.

6.5. Intra-industry and inter-industry deals: Seller returns

Cross-border deals (Table 5, Panel C) generate market model abnormal returns of 3.10% when the acquirer is operating in the same industry (based on 2-digit SIC code) as the divested asset (Intra-industry deals), and 2.4% when the acquirer is new to the industry (Inter-industry deals). Results seem to be consistent with the expected effect of the buyer's foreignness prevailing over any competitive effect. Foreign buyers may be willing to pay an extra premium if they foresee synergies in expanding their geographical reach, if they seek to increase in size, or because of information asymmetry, especially in the case of inter-industry deals. These reasons are all consistent with the observed positive abnormal performance for the target firm.

For domestic deals (Table 5, Panel C) the mean abnormal returns are 1.8% and 0.83% in intra- and inter-industry deals, respectively. Mean comparison tests show that cross-border deals where the buyer and the asset are in the same industry (match) generate returns for the seller that are significantly higher than these of sellers whose asset is not in the same industry as an U.S. buyer (non-match).

Similarly, cross-border non-matches generate higher returns than both domestic matches and non-matches, pointing to the greater wealth generation by cross-border transactions, regardless of industry effects. We also find significantly higher returns of foreign acquirers of assets in the same industry. Considering mean returns these participants fair better than all three other groups, namely cross-border non-matches, domestic matches, and domestic non-matches.

Model (4) in Table 7 examines these predictions in a multivariate setting, after controlling for seller characteristics. The results corroborate the expectations outlined in H5 that cross-border deals within the same industry result in the highest market reaction to asset sale announcements. These are followed by cross-border deals where the buyer and the asset are in different industries, and subsequently by domestic intra-industry deals. The returns to these three groups are significantly higher (at the 1% significance level) than domestic inter-industry deals, which serve as the base group.

Consistent with our hypothesis, foreign companies are paying an extra premium compared to domestic companies executing deals within their respective industry. This is consistent with the asymmetric information argument, as well as with the liquidity argument. Foreign buyers might be overpaying because of imperfect information about the quality of the asset, or, in periods of market downturn, they might exploit their “deeper pockets” using the liquidity available in their home market to outbid domestic acquirers. Both domestic and international deals seem to create more value when the acquiring company is operating in the same industry as that of the target. The result is consistent with the more efficient allocation of resources and better use of the asset by a higher Tobin’s Q market participant (see Table 1, Panel C).

7. Conclusion

Asset sales and their role as a source of financing have been a topic of research for over twenty five years now. Foreign acquisitions of U.S. target firms have also drawn significant attention of academics and practitioners. Aspects of both of these prior literatures are examined in our study on cross-border divestitures by U.S. firms.

We find significant and positive abnormal returns upon the announcement of asset sales which involve a U.S. seller and a foreign buyer over the period 1998-2008. Whether the buyer is foreign or domestic dominates more common divestiture considerations such as acquirer efficiency and industry commonality. These results also obtain when we look at the subset of firms who state core segment focusing and liquidity needs as their reasons for the asset sale. Among liquidity-constrained sellers cross-border deals elicit a higher abnormal return compared to domestic deals. However, among unconstrained sellers there is no significant difference between cross-border and domestic deals.

We compare cross-border divestitures with U.S. domestic asset sales matched on deal size, industry, and time, and show that foreign asset sales yield higher abnormal returns, arising from macroeconomic factors such as the strength of the acquirer's currency relative to the U.S. dollar, the cost of debt, and equity financing in the U.S. market. Results are consistent with cross-border asset sales being a countercyclical source of funding, more valuable when the level of liquidity in the national market is scarce. However, the introduction of enhanced competition explains the lower median returns found in cross-border asset deals where the foreign buyer operates in a segment in which the seller will be focusing. Investors appear to reward the optimal allocation of resources implied when the purchasing firm has a high Tobin's Q, as illustrated by the seller's significant positive abnormal returns. We also find intra-industry deals generate higher mean returns than inter-industry asset sales, as suggested by the fit hypothesis. Foreign divestitures more strongly exhibit this effect potentially due to acquirers' propensity to overpay, regardless of industry, based on market unfamiliarity and/or a desire for expansion.

The impact of asset purchases on buyers is also positive, even though results do not show any difference across domestic and cross-border deals. The paper distinguishes between the benefits of cross-border and domestic asset sales for the sellers and buyers involved in the transaction. Overall, we conclude that liquidity-constrained firms selling assets internationally profit the most in the short term, owing to the potential overpayment and increase in purchasing power of foreign acquirers. Understanding the implications of cross-border asset sales and the mechanisms through which they manifest their effects

could also have important implications for firms planning corporate restructuring, given the proven impact of the event on the value of the divesting firm.

Appendix

Table A1

Motivation categories and descriptions from the divesting firms' press releases

| Category | Description |
|--|--|
| 1. Focus | Focus on core business and assets; divest non-strategic or mature assets; strengthen existing operations and expand presence in primary market, concentrate on product where its has a competitive advantage; realize leadership positions in higher growth and more profitable markets; focus on expanding other promising business (resize and refocus), complements an exiting strategy to maintain firm long-term strategy; strategic decision of exiting, sell a loss making/bankrupt operation, focus, disposition of non-core assets / business, focus attention, focus resources, considered to be non core to its operations (what they are selling), formal plan for the disposition of businesses being sold, evolution from a conglomerate to a focused operating company, devote all our attention to....., effort to exiting the business of and focusing on..., furthering our strategy to consolidate and restructure around a more focused business model, does not complement, gives the opportunity to concentrate on..., focusing on the key growth areas, redirection the business to focus, completes the transition to... |
| 2. Pay off debt / deleveraging | Pay down / reduce outstanding debt and comply with loan agreement provision; increase equity, assume (the acquirer) all the company liabilities associated with the business, repay indebtness refinance, reduce outstanding short-term indebtness, proceeds will be used to reduce corporate debt, positive effect on its debt-to-EBITDA ratio, strengthening financial and credit profile. |
| 3. Raise cash | Strengthen balance sheet - raise cash through disposal; monetize investment portfolio; increase net working capital, reduce cash burn and increase cash position, add to its capital base; move towards profitability; increase overall liquidity, raise cash in conjunction with financing of concurrent acquisition, generate cash for the company continuing operations . |
| 4. Increase shareholder value | Distribution to preferred holders, retain proceeds to fund distribution to shareholders, distribution of sales/net proceeds, funds a substantial distribution to the shareholders and not the acquisition or the development of new businesses, (funds) giving back to shareholders, pay a special dividend and common stock repurchases. |
| 5. Regulatory requirements | Sale to comply with regulatory requirements; satisfying antitrust approval. |
| 6. Increase assets value / growth opportunities / reinvestment | Enhance its asset quality, refine portfolio of assets, lengthen its reserve life and lower its unit cost structure, i.e. general strategy to take advantage of sound investment opportunities; financial flexibility to accelerate the development of additional applications of existing products, optimize its business portfolio, redefine manufacturing strategy through significantly improved asset utilization and greater supply-chain flexibility, expand capabilities, providing resources for advancing its product pipeline, redeploy the associated capital, boost its chance to buy more precious material, developing its specialty pharmacy and other businesses, suitable infrastructure to sell and support of manufacturing solution product globally. |
| 7. Cost efficiency | Cost savings, lower operating expenses and improve margins, improve cost structure, reduce operating expenses, reduce future operating losses and liabilities, preserve the potential future value, improve financial performance by outsourcing, improve the supply chain efficiency and bolster its financial performance, cut costs and beef up profit margins, reduce the cost of the structures it delivers. |

| Category | Description |
|---|---|
| 8. Strategic agreement / combination for future operations, synergies | Distribution agreement, service agreement, supply agreement, sales or marketing agreements, create synergies; eliminate duplicate services / operations; create significant economies of scale, begin working together, valuable partnership. |

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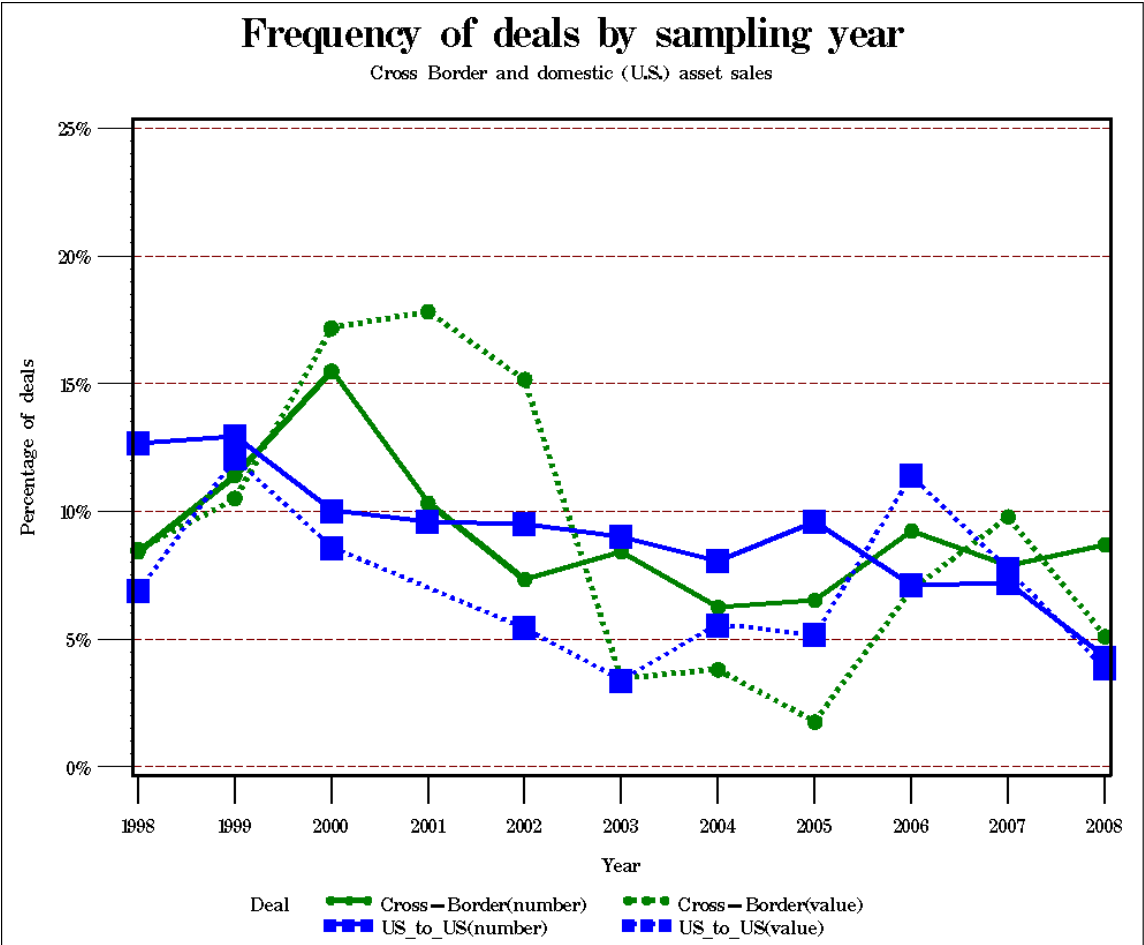


Fig. 1. Frequency of deals by year. The number and value of cross-border asset sale deals are shown by the green lines with circles (solid and dotted, respectively). The number and value of domestic deals are represented by the blue lines with squares (solid and dotted, respectively).

Table 1

Sample description, 1998-2008.

Panel A summarizes the nationality of asset acquirers per year from January 1998 to December 2008. Asset sales are identified using Thomson One Banker's Deals Analysis module. All sellers are U.S. incorporated firms selling U.S. based assets. The sample is based on the number of deals with usable seller returns. Panel B lists the industries of the asset being sold for cross-border and domestic divestitures. Panel C compares asset sale, seller, and acquirer characteristics between cross-border and domestic divestitures using mean and nonparametric equality-of-medians tests. Firm financial data is collected from Thomson One.

Panel A: Number of deals per acquirer country and year

| Country | Number of observations | | | | | | | | | | | |
|----------------|------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | Total | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| Australia | 7 | | | 1 | | | 1 | 1 | 1 | 2 | | 1 |
| Belgium | 6 | | 1 | 1 | 1 | 1 | 2 | | | | | |
| Bermuda | 3 | | | 2 | | | | | | | 1 | |
| Canada | 59 | 5 | 2 | 7 | 7 | 5 | 7 | 5 | 6 | 7 | 3 | 5 |
| China | 1 | | | | | | | | | | | 1 |
| Denmark | 5 | | | | | | | 1 | 1 | 1 | | 2 |
| Finland | 5 | | 1 | 1 | | 2 | | | | 1 | | |
| France | 15 | 1 | 3 | 2 | 1 | 1 | 2 | 1 | | 1 | 3 | |
| Germany | 22 | 1 | 5 | 3 | 4 | 1 | 2 | | | 2 | 2 | 2 |
| Greece | 1 | | | 1 | | | | | | | | |
| Guernsey | 1 | | 1 | | | | | | | | | |
| Hong-Kong | 6 | | 1 | 1 | 1 | | | | 1 | 2 | | |
| India | 3 | | | | | 1 | | 1 | | | | 1 |
| Ireland-Rep | 4 | 1 | | 2 | 1 | | | | | | | |
| Israel | 11 | | | 4 | 4 | | 1 | | | 1 | | 1 |
| Italy | 2 | | 1 | | | | | | | | 1 | |
| Japan | 19 | 2 | 2 | | 2 | 3 | | | 3 | 2 | 3 | 2 |
| Jersey | 1 | | | | | | | | 1 | | | |
| Malaysia | 1 | 1 | | | | | | | | | | |
| Netherlands | 4 | | | 2 | 1 | | | | | | 1 | |
| Norway | 3 | | | | | | | 1 | | 1 | 1 | |
| Singapore | 2 | | | 1 | 1 | | | | | | | |
| South Africa | 1 | | | | | | | | | 1 | | |
| South Korea | 2 | | | | | | 1 | | | 1 | | |
| Spain | 1 | | | | | | | | | 1 | | |
| Sweden | 14 | 1 | 2 | | 2 | | 2 | 1 | 3 | 1 | 1 | 1 |
| Switzerland | 15 | 1 | 1 | 3 | | 1 | 1 | 3 | 1 | 2 | | 2 |
| Taiwan | 6 | | 1 | | | | 2 | | | | 2 | 1 |
| United Kingdom | 74 | 9 | 12 | 16 | 6 | 9 | 4 | 2 | 4 | 4 | 3 | 5 |

| | | | | | | | | | | | | |
|---------------------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|
| <i>Cross-border Total</i> | 294 | 22 | 33 | 47 | 31 | 24 | 25 | 16 | 21 | 30 | 21 | 24 |
| United States | 1165 | 146 | 151 | 117 | 112 | 111 | 105 | 94 | 112 | 83 | 84 | 50 |
| Overall Total | 1459 | 168 | 184 | 164 | 143 | 135 | 130 | 110 | 133 | 113 | 105 | 74 |

Panel B: Number of deals per macro industry

| Divested Asset Industry | Total | Cross-border | Domestic |
|--|-------|--------------|----------|
| Agriculture, Forestry, and Fishing | 6 | 1 | 5 |
| Construction | 14 | 3 | 11 |
| Manufacturing | 652 | 192 | 460 |
| Mining | 119 | 13 | 106 |
| Public Administration | 1 | 0 | 1 |
| Retail Trade | 42 | 4 | 38 |
| Services | 330 | 57 | 273 |
| Transportation, Communications, Electric, Gas, and Sanitary Services | 244 | 14 | 230 |
| Wholesale Trade | 51 | 10 | 41 |
| Total | 1,459 | 294 | 1,165 |

Panel C: Summary statistics

| Variable | Cross-border Means (Medians) | Domestic Means (Medians) | P-value of T-test (of Median Test) |
|--|------------------------------|--------------------------|------------------------------------|
| Transaction Value | 263.1 (56.95) | 299.7 (55.00) | 0.7811 (0.8650) |
| Seller Tobin's Q | 2.052 (1.537) | 1.807 (1.400) | 0.0430 (0.1135) |
| Seller Market Cap _(t-1) | 16,032 (1,211.3) | 14,494 (1,898.5) | 0.5622 (0.1686) |
| Seller Total Assets (\$ mil) | 13,585 (1,832.7) | 14,854 (2,560.5) | 0.6487 (0.0477) |
| Seller Profitability | -0.0945 (0.0266) | -0.0757 (0.0187) | 0.6678 (0.0625) |
| Seller Leverage | 0.217 (0.187) | 0.249 (0.224) | 0.0419 (0.0171) |
| Deal Value to Seller Market Cap _(t-1) | 0.245 (0.0565) | 0.237 (0.0431) | 0.8366 (0.0952) |
| Acquirer Tobin's Q | 2.437 (1.734) | 2.119 (1.546) | 0.0681 (0.0172) |
| Acquirer Market Cap _(t-1) | 11,276 (1571.1) | 8,920.3 (1082.8) | 0.3446 (0.0253) |
| Acquirer Total Assets (\$ mil) | 8,557.6 (1,491.4) | 8,893.1 (1,331.4) | 0.9002 (0.5782) |
| Acquirer Profitability | 0.0231 (0.0481) | -0.0558 (0.0362) | 0.2034 (0.0027) |
| Acquirer Leverage | 0.150 (0.124) | 0.255 (0.235) | 0.0000 (0.0000) |
| Deal Value to Acquirer Market Cap _(t-1) | 0.154 (0.0443) | 0.357 (0.0568) | 0.2339 (0.0981) |

Table 2A

Stock-price reaction to cross-border and domestic asset sale announcements by divesting U.S. companies.

Panels A and B report the market reaction to cross-border asset sale announcements by U.S. firms. Panels B and C report the market reaction to domestic asset sales announcements by U.S. firms (i.e. when the seller and acquirer are both U.S. public companies). Day zero is the announcement date as reported by Thomson One Banker. When the announcement was made public on a non-trading day, we selected the first trading date after the announcement was made as the event day. The estimation period is 254 days long; the first half ends 30 days prior to the event and the second half starts 30 days after the event, respectively. Returns are trade-to-trade. AR denotes market-adjusted or market model abnormal return. For multi-day windows, CAR denotes cumulative abnormal returns. Market-adjusted returns are stock returns minus market index returns. The market model is estimated by ordinary least squares. For multi-day windows, the rank test and the GST are on cumulative abnormal returns (CARs). Reported significance levels for the Patell test and the test are calculated using wild bootstrapping to determine the p-value of the test statistics. \$, *, **, and *** denote statistical significance at the 10%, 5%, 1%, and 0.1% levels, respectively, using an upper-tail test.

| Event window (trading days) | Number of events | Mean AR or CAR | Median AR or CAR | Patell | CDA | Rank Z | GST Z |
|---|------------------|----------------|------------------|-----------|-----------|----------|----------|
| <i>Panel A: Market-adjusted returns, cross-border asset sales</i> | | | | | | | |
| 0 | 294 | 2.88% | 0.68% | 9.953*** | 10.805*** | 3.975*** | 4.309*** |
| (-1,0) | 294 | 2.85% | 0.80% | 6.946*** | 7.575*** | 2.664** | 3.725*** |
| (-1,+1) | 294 | 3.19% | 1.16% | 6.621*** | 6.909*** | 2.470** | 4.776*** |
| (-5,+5) | 294 | 3.06% | 0.62% | 2.501* | 3.468** | 0.075 | 1.622\$ |
| <i>Panel B: Market model abnormal returns, cross-border asset sales</i> | | | | | | | |
| 0 | 294 | 2.88% | 0.74% | 9.885*** | 11.158*** | 3.962*** | 4.167*** |
| (-1,0) | 294 | 2.83% | 0.73% | 6.829*** | 7.749*** | 2.548** | 3.700*** |
| (-1,+1) | 294 | 3.19% | 1.17% | 6.628*** | 7.138*** | 2.417** | 5.218*** |
| (-5,+5) | 294 | 3.20% | 0.81% | 2.764* | 3.747** | 0.285 | 2.298* |
| <i>Panel C: Market-adjusted returns, domestic asset sales</i> | | | | | | | |
| 0 | 1156 | 1.51% | 0.56% | 14.868*** | 11.434*** | 8.066*** | 6.390*** |
| (-1,0) | 1156 | 2.09% | 0.38% | 11.743*** | 11.186*** | 6.803*** | 6.803*** |
| (-1,+1) | 1156 | 2.13% | 0.56% | 10.370*** | 9.312*** | 5.525*** | 5.565*** |
| (-5,+5) | 1156 | 2.09% | 0.52% | 4.460*** | 4.774*** | 2.172* | 4.563*** |
| <i>Panel D: Market model abnormal returns, domestic asset sales</i> | | | | | | | |
| 0 | 1156 | 1.52% | 0.41% | 15.420*** | 11.614*** | 8.195*** | 7.112*** |
| (-1,0) | 1156 | 2.08% | 0.48% | 12.144*** | 11.212*** | 6.694*** | 6.052*** |
| (-1,+1) | 1156 | 2.15% | 0.65% | 10.924*** | 9.468*** | 5.402*** | 6.052*** |
| (-5,+5) | 1156 | 2.31% | 0.60% | 5.340** | 5.302*** | 1.870 | 3.521*** |

Table 2B

Stock-price reaction to cross-border and matched domestic asset sale announcements by divesting U.S. companies.

Panels A and B report the market reaction to cross-border asset sale announcements by U.S. firms. Panels C and D report the results on a matched random sample of domestic deals, where the seller and acquirer are both U.S. public companies. Matched domestic deals are identified as follows. We pick domestic deals that (1) occur within the same macro-industry, as identified by the first two digit of the SIC code, (2) are announced within +/-340 days from the announcement date of the cross-border deal and (3) have a dollar value within +/-50% of the size of the cross-border deal. Among deals satisfying the three matching criteria, we select the one closest in dollar value to the matched cross-border deal. Day zero is the announcement date as reported by Thomson One Banker. When the announcement was made public on a non-trading day, we selected the first trading date after the announcement was made as the event day. The estimation period is 254 days long; the first half ends 30 days prior to the event and the second half starts 30 days after the event, respectively. Returns are trade-to-trade. AR denotes market-adjusted or market model abnormal return; for multi-day windows, CAR denotes cumulative abnormal returns. Market-adjusted returns are stock returns minus market index returns. The market model is estimated by ordinary least squares. For multi-day windows, the rank test and the GST are on cumulative abnormal returns (CARs). Reported significance levels for the Patell and the CDA test are calculated using wild bootstrapping to determine the p-value of the test statistics. \$, *, **, and *** denote statistical significance at the 10%, 5%, 1%, and 0.1% levels, respectively, using an upper-tail test.

| Event window (trading days) | Number of events | Mean AR or CAR | Median AR or CAR | Patell | CDA | Rank Z | GST Z |
|---|------------------|----------------|------------------|---------|---------|---------|---------|
| <i>Panel A: Market-adjusted returns, cross-border asset sales</i> | | | | | | | |
| 0 | 126 | 3.28% | 1.62% | 4.375* | 7.134** | 2.533** | 2.833** |
| (-1,0) | 126 | 2.68% | 1.22% | 2.319\$ | 4.133* | 0.796 | 1.761* |
| (-1,+1) | 126 | 3.02% | 0.60% | 2.296\$ | 3.797* | 0.650 | 1.791* |
| (-5,+5) | 126 | 3.44% | 1.14% | 0.488 | 2.262* | -0.628 | -0.202 |
| <i>Panel B: Market model abnormal returns, cross-border asset sales</i> | | | | | | | |
| 0 | 126 | 3.30% | 0.68% | 4.343* | 7.396** | 2.663** | 2.557** |
| (-1,0) | 126 | 2.77% | 0.46% | 2.431\$ | 4.390* | 0.881 | 1.665* |
| (-1,+1) | 126 | 3.22% | 1.21% | 2.556* | 4.159* | 0.759 | 2.021* |
| (-5,+5) | 126 | 3.76% | 0.62% | 0.850 | 2.536* | -0.254 | 1.129 |
| <i>Panel C: Market-adjusted returns, domestic asset sales</i> | | | | | | | |
| 0 | 126 | 0.48% | -0.44% | 2.342 | 1.050 | -0.266 | -0.924 |
| (-1,0) | 126 | 0.97% | 0.72% | 3.044* | 1.494\$ | 0.358 | 1.930* |
| (-1,+1) | 126 | 1.04% | -0.22% | 3.583* | 1.310\$ | 0.297 | -0.032 |
| (-5,+5) | 126 | -0.06% | -1.14% | 1.536 | -0.038 | -0.598 | -0.032 |
| <i>Panel D: Market model abnormal returns, domestic asset sales</i> | | | | | | | |
| 0 | 126 | 0.60% | -0.24% | 3.111\$ | 1.317 | 0.096 | -0.456 |
| (-1,0) | 126 | 1.12% | 0.88% | 3.606* | 1.746* | 0.841 | 2.397** |
| (-1,+1) | 126 | 1.24% | 0.35% | 4.139* | 1.583* | 0.796 | 1.684* |
| (-5,+5) | 126 | 0.31% | -0.86% | 1.973\$ | 0.209 | -0.100 | -0.278 |

Table 2C

Stock-price reaction to cross-border and domestic asset sale announcements for foreign and domestic acquiring companies.

Panels A and B report the market reaction to cross-border asset sale announcements by U.S. firms for the foreign acquirer. Panels C and D report the market reaction to domestic asset sales announcements by U.S. divesting firms for the domestic bidder. Day zero is the announcement date as reported by Thomson One Banker. When the announcement was made public on a non-trading day, we selected the first trading date after the announcement was made as the event day. The estimation period is 254 days long; the first half ends 30 days prior to the event and the second half starts 30 days after the event, respectively. Returns are trade-to-trade. AR denotes market-adjusted or market model abnormal return. For multi-day windows, CAR denotes cumulative abnormal returns. Market-adjusted returns are stock returns minus market index returns. The market model is estimated by ordinary least squares. For multi-day windows, the rank test and the GST are on cumulative abnormal returns (CARs). Reported significance levels for the Patell test and the test are calculated using wild bootstrapping to determine the p-value of the test statistics. \$, *, **, and *** denote statistical significance at the 10%, 5%, 1%, and 0.1% levels, respectively, using an upper-tail test.

| Event window (trading days) | Number of events | Mean AR or CAR | Median AR or CAR | Patell | CDA | Rank Z | GST Z |
|--|------------------|----------------|------------------|-----------|----------|----------|----------|
| <i>Panel A: Acquirer market-adjusted returns, cross-border asset sales</i> | | | | | | | |
| 0 | 227 | 1.18% | 0.33% | 6.356*** | 5.137*** | 3.346*** | 3.216*** |
| (-1,0) | 228 | 1.18% | 0.43% | 4.137*** | 3.638*** | 1.459\$ | 1.819* |
| (-1,+1) | 230 | 1.94% | 0.93% | 6.119*** | 4.884*** | 2.886** | 3.133*** |
| (-5,+5) | 230 | 3.38% | 1.90% | 5.731*** | 4.433*** | 2.735** | 3.661*** |
| <i>Panel B: Acquirer market model abnormal returns, cross-border asset sales</i> | | | | | | | |
| 0 | 227 | 1.10% | 0.31% | 6.506*** | 4.898*** | 3.294*** | 2.277* |
| (-1,0) | 228 | 1.15% | 0.30% | 4.480*** | 3.627*** | 1.716* | 2.076* |
| (-1,+1) | 230 | 1.88% | 0.63% | 6.365*** | 4.835*** | 3.088** | 3.392*** |
| (-5,+5) | 230 | 3.03% | 1.81% | 5.499*** | 4.061*** | 2.835** | 4.316*** |
| <i>Panel C: Acquirer market-adjusted returns, domestic asset sales</i> | | | | | | | |
| 0 | 960 | 0.80% | 0.34% | 10.210*** | 6.428*** | 5.843*** | 5.695*** |
| (-1,0) | 960 | 0.87% | 0.37% | 8.672*** | 4.977*** | 5.834*** | 4.790*** |
| (-1,+1) | 960 | 1.80% | 0.94% | 12.092*** | 8.422*** | 6.795*** | 6.406*** |
| (-5,+5) | 960 | 1.73% | 1.00% | 7.024*** | 4.216*** | 4.853*** | 5.307*** |
| <i>Panel D: Acquirer market model abnormal returns, domestic asset sales</i> | | | | | | | |
| 0 | 960 | 0.84% | 0.40% | 10.598*** | 6.928*** | 5.951*** | 5.854*** |
| (-1,0) | 960 | 0.91% | 0.39% | 9.009*** | 5.279*** | 5.772*** | 5.079*** |
| (-1,+1) | 960 | 1.87% | 0.89% | 12.511*** | 8.903*** | 6.699*** | 6.436*** |
| (-5,+5) | 960 | 1.92% | 1.14% | 7.838*** | 4.784*** | 4.849*** | 5.660*** |

Table 3

Event-day returns of cross-border and domestic asset sale announcements.

The table presents mean and median comparisons of event-day returns between cross-border and domestic asset sale announcements. All sellers are U.S. incorporated firms selling U.S. based assets. The acquirers in the cross-border deals are domiciled outside of the U.S. Returns are calculated using market (MM) or market-adjusted models (MAR). Asset sales are identified using Thomson One Banker's Deals Analysis module. Financial market returns are collected from CRSP for U.S. traded companies and from DataStream for non-U.S. firms. The sample covers a period from January 1998 to December 2008 and is based on the number of deals with usable seller returns. Combined returns are size-weighted averages of seller and acquirer returns, where size is measured by beginning-of-period total assets. Seller - Acquirer represents the difference between seller and acquirer returns. Differences (Diff.) between cross-border and domestic mean/median returns are presented, and significance at the 1% and at the 5% level from mean and nonparametric equality-of-medians tests is indicated by *** and **, respectively.

| Firm | Return Estimation | Full Sample | | | Cross-border | | | Domestic | | | T-test Diff. | Median Diff. |
|-------------------|-------------------|-------------|-------|--------|--------------|-------|--------|---------------------|-------|--------|--------------|--------------|
| | | Deals | Mean | Median | Deals | Mean | Median | Deals ²¹ | Mean | Median | | |
| Seller | MM | 1459 | 1.81% | 0.47% | 294 | 2.88% | 0.74% | 1165 | 1.54% | 0.41% | 1.34%** | 0.33% |
| Seller | MAR | 1459 | 1.79% | 0.44% | 294 | 2.88% | 0.68% | 1165 | 1.52% | 0.40% | 1.36%** | 0.28% |
| Acquirer | MM | 1193 | 0.88% | 0.36% | 227 | 1.10% | 0.31% | 966 | 0.83% | 0.39% | 0.27% | -0.08% |
| Acquirer | MAR | 1193 | 0.86% | 0.33% | 227 | 1.18% | 0.33% | 966 | 0.78% | 0.33% | 0.40% | 0.00% |
| Combined | MM | 1153 | 0.78% | 0.31% | 213 | 1.62% | 0.43% | 940 | 0.59% | 0.27% | 1.03%*** | 0.16% |
| Combined | MAR | 1153 | 0.73% | 0.31% | 213 | 1.59% | 0.55% | 940 | 0.54% | 0.23% | 1.05%*** | 0.32% |
| Seller - Acquirer | MM | 1193 | 0.86% | 0.04% | 227 | 1.88% | 0.12% | 966 | 0.61% | 0.01% | 1.27%* | 0.11% |
| Seller - Acquirer | MAR | 1193 | 0.85% | 0.07% | 227 | 1.79% | 0.23% | 966 | 0.63% | 0.04% | 1.16% | 0.19% |

²¹ Minor discrepancies in observations, means, and medians between this table and Table 2A exist due to multiple deals transacted by a firm on the same day. Here these are treated as separate deals, whereas in Table 2A they are aggregated into one firm-day event.

Table 4

Event-day market model seller returns of cross-border and domestic asset sale announcements: Sale motivation and pre-event performance.

Returns presented in the table are for the divesting U.S. firms and are calculated using the market model (MM). Panel A represents a summary of reasons stated by management of the asset-selling firm over the sample period of 1998 to 2008 and corresponding event-day returns. Reasons are from press releases located in Lexis-Nexis. Detailed category definitions are available in the Appendix. Some management teams cite more than one reason for the divestiture, and thus the total number exceeds the number of deals. The last two rows are combinations of two categories to further examine sellers' liquidity needs. Mean/median returns between each category and all other categories are compared within cross-border and domestic subsample columns. Differences (Diff.) between cross-border and domestic mean/median returns for each category are presented in the rightmost columns. Panel B contrasts returns of divesting firms in different relative financial health for cross-border and domestic asset sales. Firms are classified as liquidity-constrained based on two measures: (1) negative net income and (2) interest coverage ratio, calculated as EBIT over interest expense, less than one. If a selling firm has these properties in each of the two consecutive years immediately prior to the asset sale, the respective binary variable will be set to a 1. Mean/median differences between cross-border and domestic firms are presented in rows under the subsample rows, and differences between constrained and unconstrained firms within subsamples are presented in the rightmost columns. Comparisons are constrained by the availability of firm financial information in the Thomson One database. Mean and nonparametric equality-of-medians tests are performed: significantly higher means/medians at the 1%, 5%, and 10% level are indicated by ***, **, and *, respectively, and significantly lower means/medians at the 1%, 5%, and 10% level are indicated by °°, °, and °, respectively.

| <i>Panel A: Sale motivation</i> | | Cross-border Subsample | | | Domestic Subsample | | | T-test | Median |
|---|--------------|-------------------------------|---------------|--------------|---------------------------|---------------|--------------|---------------|---------------|
| Category | Deals | Mean | Median | Deals | Mean | Median | Diff. | Diff. | |
| Focus | 136 | 3.68% | 0.74% | 545 | 1.65% | 0.48% | 2.04%** | 0.26% | |
| Synergies | 76 | 2.69% | 1.02% | 168 | 1.87% | 0.73% | 0.83% | 0.29% | |
| Pay off Debt | 52 | 3.69% | 1.27%* | 257 | 3.25%*** | 0.83%** | 0.44% | 0.44% | |
| Raise Cash | 51 | 6.90%*** | 1.37%** | 199 | 1.43% | 0.74%* | 5.47%*** | 0.63%* | |
| Shareholder Value | 45 | 4.65% | 1.10% | 138 | 3.07%** | 0.63% | 1.58% | 0.47% | |
| Increase Asset Value | 29 | 2.63% | 1.48%* | 180 | 1.55% | 0.48% | 1.08% | 1.00%* | |
| Cost Efficiency | 22 | 0.97% | 0.15%° | 71 | 1.14% | 0.32% | -0.17% | -0.17% | |
| Regulatory Requirement | 3 | 0.23% | 0.62% | 35 | 0.82% | 0.12% | -0.59% | 0.50% | |
| No Reason | 57 | 0.99% | -0.23%°° | 295 | 0.48%°° | 0.19%°° | 0.50% | -0.42% | |
| Pay off Debt or Raise Cash but not Increase Asset Value | 80 | 5.37%** | 1.11%** | 285 | 2.20% | 0.67% | 3.17%* | 0.44% | |
| Increase Asset Value or Raise Cash but not Pay off Debt | 57 | 5.52%* | 1.18%* | 208 | 0.34%°° | 0.34% | 5.17%*** | 0.84%** | |

| <i>Panel B: Relative financial health</i> | | Constrained Firms | | | Unconstrained Firms | | | T-test | Median |
|--|---------------|--------------------------|-------------|---------------|----------------------------|-------------|---------------|---------------|---------------|
| Liquidity Constraint Measure | Sample | Deals | Mean | Median | Deals | Mean | Median | Diff. | Diff. |
| Negative Net Income in the 2 Years Prior to Sale | Cross-border | 69 | 6.29% | 1.56% | 216 | 1.80% | 0.53% | 4.49%*** | 1.03% |
| | U.S. | 251 | 1.70% | 0.31% | 872 | 1.49% | 0.42% | 0.21% | -0.11% |
| | Diff. | | 4.59%** | 1.25%** | | 0.31% | 0.11% | | |
| Interest Coverage Ratio < 1 in the 2 Years Prior to Sale | Cross-border | 53 | 7.44% | 2.35% | 199 | 1.23% | 0.40% | 6.21%*** | 1.95%** |
| | U.S. | 205 | 2.21% | 0.44% | 823 | 1.39% | 0.42% | 0.82% | 0.02% |
| | Diff. | | 5.23%** | 1.91%** | | -0.16% | -0.02% | | |

Table 5

Event-day market model returns of cross-border and domestic asset sale announcements: Competition, efficiency, and industry familiarity.

Returns presented in the table are calculated using the market model. Panel A shows mean/median returns based on whether the buyer of the asset has any overlapping segments with the remaining segments of a focusing seller (Matched industry) or not (Non-matched industry). Buyer segments are collected in the year of the asset sale, and focusing seller segments are collected in the year following the deal to avoid recording the divested asset's industry as part of the seller's remaining segments. Differences (Diff.) between mean/median returns are presented in the rightmost columns. Panel B displays seller returns categorized according to foreignness and acquirer efficiency based on median Tobin's Q, where CBAH = Cross-Border Acquirer High Q; CBAL = Cross-Border Acquirer Low Q; USAH = U.S. Acquirer High Q; USAL = U.S. Acquirer Low Q. Panel C presents seller returns according to industry matching between the buyer and the divested asset based on 2-digit SIC code, where CBM = Cross-Border Matching industry deal; CBNM = Cross-Border Non-Matching industry deal; USM = U.S. Matching industry deal; USNM = U.S. Non-Matching industry deal. Buyer segments are collected in the year prior to the asset purchase to avoid recording the divested asset's industry as part of the buyer's pre-sale segments. Differences are calculated between each row's category (x) and the category listed in the column heading. Statistical significance at the 1%, 5%, and 10% levels for mean and nonparametric equality-of-medians tests is represented by ***, **, and *, respectively.

| <i>Panel A: Competition from foreign buyers for focusing sellers</i> | | | | | | | | | | |
|--|------------------|-------|--------|----------------------|-------|--------|--------------|--------------|--|-----------|
| Sample | Matched industry | | | Non-matched industry | | | T-test Diff. | Median Diff. | | |
| | Deals | Mean | Median | Deals | Mean | Median | | | | |
| Cross-border | 63 | 1.19% | -0.17% | 41 | 2.58% | 1.83% | -1.39% | | | -2.00%*** |
| U.S. | 273 | 1.91% | 0.54% | 190 | 1.06% | 0.47% | 0.85% | | | 0.07% |

| <i>Panel B: Buyer efficiency</i> | | | | | | | | | | |
|----------------------------------|----------|-------|-------|--------|----------|----------|----------|----------|----------|----------|
| Firm | Category | Deals | Mean | Median | T-test | Median | T-test | Median | T-test | Median |
| | | | | | x - CBAL | x - CBAL | x - USAH | x - USAH | x - USAL | x - USAL |
| Seller | CBAH | 131 | 2.63% | 0.61% | 0.25% | -0.13% | 0.57% | 0.09% | 1.49%* | 0.22% |
| Seller | CBAL | 131 | 2.38% | 0.74% | | | 0.32% | 0.22% | 1.24% | 0.35% |
| Seller | USAH | 537 | 2.06% | 0.52% | | | | | 0.92%* | 0.13% |
| Seller | USAL | 538 | 1.14% | 0.39% | | | | | | |

| <i>Panel C: Intra-industry and inter-industry deals</i> | | | | | | | | | | |
|---|----------|-------|-------|--------|----------|----------|---------|---------|----------|----------|
| Firm | Category | Deals | Mean | Median | T-test | Median | T-test | Median | T-test | Median |
| | | | | | x - CBNM | x - CBNM | x - USM | x - USM | x - USNM | x - USNM |
| Seller | CBM | 200 | 3.10% | 0.58% | 0.70% | -0.52% | 1.30% | 0.19% | 2.27%** | 0.05% |
| Seller | CBNM | 94 | 2.40% | 1.10% | | | 0.60% | 0.71% | 1.58%* | 0.57% |
| Seller | USM | 849 | 1.80% | 0.39% | | | | | 0.98%* | -0.14% |
| Seller | USNM | 316 | 0.83% | 0.53% | | | | | | |
| Acquirer | CBM | 159 | 1.54% | 0.31% | 1.47%* | 0.05% | 0.68%* | -0.22% | 0.80%* | 0.22% |
| Acquirer | CBNM | 68 | 0.07% | 0.26% | | | -0.78% | -0.27% | -0.67% | 0.17% |
| Acquirer | USM | 706 | 0.86% | 0.53% | | | | | 0.11% | 0.44% |
| Acquirer | USNM | 260 | 0.75% | 0.09% | | | | | | |

Table 6

Determinants of the market premium for the divesting firm: Buyer nationality, liquidity, consideration, performance, timing, and market presence.

The dependent variable is the divesting firms' abnormal return on the day of the event. Cross-border takes a value of 1 if the purchasing firm is headquartered outside of the U.S. ICS is the annual University of Michigan Consumer Sentiment Index. Spread (AAA) is the percentage spread on a AAA corporate bond as of December 31st of the year of the deal. Exchange Rate_{(avg(t),t0)} is the difference between the average exchange rate over 1998-2008 and the acquirer's local currency exchange rate to 1 USD on the announcement date and, scaled by the average. Exchange Rate_(t-3,t0) is calculated similarly but uses the exchange rate 3 years prior in place of the average. Cash Only takes a value of 1 if the asset sale was paid for using only cash. Deal Value to Seller Size_(t-1) is the ratio of the dollar value of the deal to the seller's market value one year prior to the deal. Seller Profitability is the ratio of net income to total assets. Negative Seller Net Income_(t-2,t0) takes a value of 1 when the seller had negative net income in the 2 years prior to the deal. Deal in Firms' Fiscal End Month takes a value of 1 if the deal occurred in the last month of the fiscal year for both the seller and the buyer. US Presence takes a value of 1 if a foreign buyer has some business operations in the U.S. prior to the deal. Regressions use clustered standard errors; the cluster is defined as the acquirer nation of origin. T-ratio values are in parentheses. ***, **, * is the level of statistical significance at 1%, 5%, and 10%, respectively.

| Variables | (1) | (2) | (3) | (4) | (5) |
|---|------------------------|--------------------------|-------------------------|------------------------|------------------------|
| Cross-border | 0.180** (2.1838) | 0.0333* (1.8875) | 0.0366** (2.2487) | | |
| ICS | 0.000188* (2.0392) | | | | -0.00143* (-1.8386) |
| Cross-border x ICS | -0.00150* (-1.9959) | | | | |
| Spread (AAA) | | | | | 0.0224** (2.4201) |
| Exchange Rate _{(avg(t),t0)} | -0.00596 (-0.1627) | 0.0547 (0.8859) | | | 0.233** (2.4610) |
| Exchange Rate _(t-3,t0) | | | 0.225* (1.9637) | 0.0789** (2.0561) | |
| Cash Only | 0.00734*** (3.9866) | 0.00351*** (6.7834) | 0.00651*** (3.8087) | -0.0324* (-1.7568) | -0.0339 (-1.5529) |
| Cross-border x Cash Only | -0.0402** (-2.4838) | -0.0345* (-1.8979) | -0.0412** (-2.2624) | | |
| Deal Value to Seller Size _(t-1) | 0.0420*** (14.4306) | 0.0429*** (7.9100) | 0.0373*** (12.3002) | 0.0507** (2.7501) | 0.0498** (2.6454) |
| Seller Profitability | -0.0233 (-0.8201) | | -0.0225 (-0.8225) | -0.114*** (-3.7948) | -0.109*** (-3.6939) |
| Negative Seller Net Income _(t-2,t0) | | -0.00602*** (-5.6759) | | | |
| Cross-border x Negative Seller Net Income _(t-2,t0) | | 0.0351** (2.0686) | | | |
| Deal in Firms' Fiscal End Month | | | 0.0256*** (3.4056) | | |
| US Presence | | | -0.0641*** (-2.9121) | -0.0680** (-2.3516) | -0.0699** (-2.5361) |
| US Presence x Exchange Rate _(t-3,t0) | | | -0.272** (-2.4335) | -0.135*** (-4.3075) | |
| US Presence x Exchange Rate _{(avg(t),t0)} | | | | | -0.244*** (-2.9208) |
| US Presence x Cash Only | | | | 0.0432 (1.3454) | 0.0476 (1.4707) |
| Constant | -0.0184 (-1.4621) | 0.00420*** (2.9396) | 0.0632*** (2.9493) | 0.0574*** (3.2639) | 0.0512 (1.1467) |
| Observations | 1331 | 1384 | 1242 | 263 | 263 |
| R-squared | 0.1123 | 0.0880 | 0.1198 | 0.5317 | 0.5423 |

Table 7

Determinants of sellers' returns: Motivation, efficiency, and industry effects.

The dependent variable is the divesting firms' abnormal return on the day of the event. Cross-border is a dummy variable equal to one for cross-border asset sales and zero for domestic. Increase Asset Value or Raise Cash but not Pay off Debt takes a value of one if the seller's motivation is described in this way. ICS is the annual University of Michigan Consumer Sentiment Index. Cash Only takes a value of 1 if the asset sale was paid for using only cash. Deal Value to Seller Size_(t-1) is the ratio of the dollar value of the deal to the seller's market value one year prior to the deal. Seller Leverage is the ratio of long term debt to total assets. Seller Profitability is the ratio of net income to total assets. Tobin's Qs are calculated by summing book value of assets and market capitalization, subtracting book value of equity, and then dividing the difference by the book value of assets. High Tobin's Q takes a value of one if the ratio is above the subsample median, and zero otherwise. Low Tobin's Q takes a value of one if the ratio is below the subsample median, and zero otherwise. Cross-border Intra-industry takes a value of one if the foreign acquirer and the asset share the same SIC. Cross-border Inter-industry takes a value of one if the foreign acquirer and the asset do not share the same SIC. Domestic Intra-industry takes a value of one if the domestic acquirer and the asset share the same SIC. Buy and hold abnormal returns (BHARs) are calculated one year prior to the sale using the market model, and binary variables are generated based on these returns being positive or negative. Constrained signifies that a selling firm has negative net income in each of the two consecutive years immediately prior to the asset sale; otherwise, the seller is considered Unconstrained. Regressions use clustered standard errors; the cluster is defined as the acquirer's nation of origin. T-ratio values are in parentheses. ***, **, * is the level of statistical significance at 1%, 5%, and 10%, respectively.

| Variables | (1) | (2) | (3) | (4) |
|--|-----------------------|------------------------|----------------------|----------------------|
| Cross-border | 0.1572* (1.92) | 0.0338** (2.27) | | |
| Increase Asset Value or Raise Cash but not Pay off Debt | -0.0169*** (-6.47) | | | |
| Cross-border x Increase Asset Value or Raise Cash but not Pay off Debt | 0.0362*** (3.20) | | | |
| ICS | 0.0002* (1.99) | | | |
| Cross-border x ICS | -0.0013* (-1.77) | | | |
| Cash Only | 0.0084*** (4.27) | | | |
| Cross-border x Cash Only | -0.0394** (-2.61) | | | |
| Deal Value to Seller Size _(t-1) | 0.0418*** (14.86) | 0.0407*** (20.02) | 0.0374*** (14.87) | 0.0413*** (15.73) |
| Seller Leverage | | 0.0064 (1.41) | 0.0112** (2.18) | 0.0056 (1.01) |
| Seller Profitability | -0.0236 (-0.84) | -0.0002 (-0.16) | 0.0010 (0.78) | -0.0246 (-0.81) |
| Cross-border x Acquirer High Tobin's Q | | | 0.0123** (2.36) | |
| Cross-border x Acquirer Low Tobin's Q | | | 0.0042 (0.70) | |
| Domestic x Acquirer High Tobin's Q | | | 0.0093*** (35.88) | |
| Cross-border Intra-industry | | | | 0.0180*** (3.42) |
| Cross-border Inter-industry | | | | 0.0162*** (3.03) |
| Domestic Intra-industry | | | | 0.0121*** (12.11) |
| Positive BHAR x Unconstrained | | 0.0014** (2.23) | | |
| Negative BHAR x Unconstrained | | -0.0029*** (-5.63) | | |
| Negative BHAR x Constrained | | -0.0074*** (-24.97) | | |
| Cross-border x Positive BHAR x Unconstrained | | -0.0330* (-2.02) | | |
| Cross-border x Negative BHAR x Unconstrained | | -0.0327* (-1.99) | | |
| Cross-border x Negative BHAR x Constrained | | -0.0442*** (-2.83) | | |
| Constant | -0.0152 (-1.27) | 0.0069*** (4.33) | 0.0001 (0.04) | -0.0056** (-2.20) |
| Observations | 1331 | 1294 | 1222 | 1328 |
| R-squared | 0.1171 | 0.0902 | 0.0737 | 0.1054 |