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ABSTRACT

In our global sample of 218,957 deals in 47 countries, target CARs average 8.14 percent and bidder CARs average 1.51 percent. We do not use the common filters in the literature which restricts the sample to completed acquisitions of public firms. The common sampling filter of using completed acquisitions significantly increases target CARs from 8 to 16 percent. Our findings indicate that M&A activity (particularly in deals where control rights are sold) generates value. We also find that the magnitude of bidder and target CARs in developed market countries is higher than those in emerging market countries.

JEL Classifications: F21, F23, G34

Keywords: Mergers and acquisitions, partial sales, event study

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1. INTRODUCTION

This paper describes trends in and characteristics of global merger and acquisitions (M&A) activity from 1992 to 2011. Global M&A deal volume averages 2.71 trillion dollars per year. We observe a cyclical increasing trend across time with a deal volume of 0.73 trillion dollars in 1992, increasing to 2.65 trillion dollars in 2010. US deals (in which the bidder or the target is a US firm) dominates the worldwide M&A market, constituting 50 percent of dollar volume and 33 percent of number of deals. M&A research overwhelmingly focuses on merger activity in US (Andrade et al., 2001; Fuller et al., 2002, Moeller et al., 2004; Alexandridis et al., 2012, 2013) with some focusing on deals in a specific country/region (Campa and Hernando, 2004; Goergen and Renneboog, 2004; Ma et al., 2009; Martynova and Renneboog, 2011; Craninckx and Huyghebaert, 2011; Geranio and Zanotti, 2012) and some on cross-border deals (Chari et al., 2010; Erel et al., 2012; Dutta et al., 2013; Starks and Wei, 2013). Netter et al. (2011) show that the standard data filters used in the M&A literature severely restricts the sample and affects the results of M&A papers analyzing US deals. In the spirit of Netter et al. (2011), we aim to describe global M&A activity with as large a sample as possible and compare the results with those in the literature. To our knowledge, our sample of 663,933 deals across 223 countries is the largest global M&A sample in terms of deal number and number of countries included.

We investigate how the value generated in mergers is distributed between bidder and target firms. When calculating 3-day cumulative abnormal returns (CARs) around merger announcements, the sample decreases to 218,957 deals in 47 countries. Requiring that sample firms have return data tilts the sample towards larger deals involving US firms. In our global sample of M&A deals, target CARs average 8.14 percent and bidder CARs average 1.51 percent.

We compare our global findings with those reported in the literature on three fronts. First, in line with individual country findings, we find that global M&A activity is value creating. Alexandridis et al. (2012), Mulherin and Boone (2000), Bauguess et al. (2009), Andrade et al. (2001), Moeller et al. (2004), Craninckx and Huyghebaert (2011), Campa and Hernando (2004) report 3-day CARs for hypothetically combined bidder and target firms which range from 0.7 to 3.6 percent using US and Europe samples. In our global sample of deals across 47 countries, combined firm CARs are significant at 1.8 percent.

Second, the literature focuses on completed acquisitions of public bidders and targets. Reviews of US M&A studies find 3-day target CARs of around 20 percent and bidder CARs that range from -1 to +1 percent (Eckbo and Thorburn, 2000; Andrade et al., 2001; Fuller et al., 2002; Eckbo, 2009; Alexandridis et al., 2012, 2013). We do not restrict the sample to public firms and do not filter out based on deal size or on whether the deal is completed. We find that when we lift the restrictions and include partial sales and incomplete deals, the 3-day target CARs change significantly. 3-day target CARs in global acquisitions is 14 percent and significantly different than CARs of 4.5 percent in partial sales. The difference in target CARs for acquisitions versus partial sales also hold when we restrict the sample to US deals. 3-day target CARs in US acquisitions is 19.5 percent and significantly different than CARs of 6 percent in partial sales. M&A activity encompasses acquisitions (69 percent of the sample) as well as partial sales (31 percent), some of which are successfully completed (75 percent of the sample) while others are not (25 percent). We find that targets enjoy lower returns in partial sales and deals that do not go through.

Third, the magnitude of target CARs prove larger in developed market countries than those in emerging market countries in our sample. Target 3-day CAR is 9.56 percent in developed market countries and 2.88 percent in emerging market countries. In the case of bidder CARs the developed-emerging market country difference still exists but the magnitude of the difference is smaller. The developed market countries’ average 3-day CAR for bidders is 1.62 percent while the corresponding value for emerging market countries’ is 0.74 percent. Our findings are in line with the findings in the literature that report highest 3-day target CARs in US of around 20 percent (Mulherin and Boone, 2000;
Andrade et al., 2001; Bauguess et al., 2009; Alexandridis et al., 2012), lower target CARs in Europe of around 10 percent ((Crainickx and Huyghebaert, 2011; Goergen and Renneboog, 2004; Martynova and Renneboog, 2011) and lowest target CARs in emerging market countries of around 2 percent (Sehgal et al (2012)).

The differences in CARs across developed versus emerging market countries may be due to differences in market efficiency, information leakages, and merger anticipation. First, market efficiency may differ between developed and emerging markets1 due to differences in liquidity (Chordia et al., 2008), legal environment (La Porta et al., 1996, 1997; Klapper and Love, 2004) and/or political and economic uncertainty (El-Erian and Kumar, 1995; Feldman and Kumar, 1995). If markets are less efficient in some countries than others, market reaction may be slower in less efficient countries. Second, information leakages may account for lower CARs in emerging market countries. If there are information leakages and/or differences in merger anticipation, then the effect of M&A announcements might be reflected in stock prices prior the to announcement date (Malatesta and Thompson, 1985; Brunnermeier, 2005; Cornett et al., 2011; Cai et al., 2011).

The contribution of this paper to M&A literature is threefold. First, the sample is global and covers 663,933 deals announced between 1992 and 2011 from 223 countries. Second, we do not restrict the sample to completed acquisitions. We analyze acquisitions and partial sales some of which are successfully completed while others are not. Third, increasing the time and country dimension allows us to investigate how the distribution of value between bidders and targets change across countries.

2. THE SAMPLE OF M&A DEALS

We use Thompson Financial Securities Data Company’s (SDC) mergers and acquisition database to compile the merger sample and deal characteristics. We first eliminate duplicate deals, then exclude buyback, exchange offer or recapitalization deals, and finally leave out rumors of deals. The resulting sample covers 663,933 deals across 223 target and 200 bidder countries with announcement dates ranging from January 1 1992 to September 30 2011. Of these 663,933 deals, SDC provides deal value (adjusted using consumer price index of September 2011) for 280,609 (42 percent) deals.

We calculate daily returns using Thomson DataStream (TDS). We conduct event study around deal announcements and require a bidder or target firm to have at least 150 returns in the 251 day estimation period before announcement and 30 returns in the 61 day event period around announcement. The measure of market returns for individual countries is Total Market Return Index from TDS. Total Market Return Index is available for 58 countries. Of these 58 countries, 11 have less than 100 deals and are excluded from the sample2. The resulting sample with return data covers 218,957 deals3. We calculate bidder CARs for 181,804 deals from 47 countries and target CARs for 54,090 deals from 45 countries. There are 16,937 deals for which we can calculate both target and bidder CARs.

Table 1 describes the sample. The full sample covers 663,933 deals of which 41 percent have public bidders and 14 percent have public targets. When conducting event study, we draw on the subsample of 218,957 deals in which either bidder or target are public firms with return data (to be called CAR sample hereafter). CAR sample constitutes 33 percent of the full sample. There are three important distinctions between the full sample and the CAR sample. First, deals in which the bidder or the target is incorporated in US constitutes 33 percent in the full sample and 40 percent in the CAR sample. Second, average deal value is 190 million dollars in the full sample and 278 million dollars in the CAR sample. Third, in the full sample bidders and targets operate in 223 and 200 counties respectively.

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1 See Lagoarde-Segot and Lucey (2008) for a discussion of efficiency in emerging markets.
2 We exclude Oman, Pakistan, Bulgaria, Bahrain, United Arab Emirates, Cyprus, Kuwait, Slovenia, Venezuela, Romania and Qatar.
3 We drop deals with CARs greater than 500 and lower than 100 percent.
However, in the CAR sample bidders and targets operate in 45 and 47 countries, respectively\(^4\). When we require that sample firms have return data, the sample tilts towards larger deals involving US firms. 

\(*\*\*\ Insert Table 1 \*\*\*

To build as broad a sample as possible, we impose no filters on deal type (acquisition versus partial sales), on deal result (completed or not completed\(^5\)), on bidder or target nation (US versus the rest of the world). Acquisitions are deals in which the bidder owns less than 50 percent of target shares at the announcement date and intends to buy control rights by purchasing more than 50 percent of shares after the deal. Partial sales are deals in which the bidder seeks to purchase minority stake or increase its majority stake in the target firm. 75 percent (70 percent in the CAR sample) of deals in the full-sample are acquisitions. 76 percent (75 percent in the CAR sample) of deals successfully goes through.

A review of the 139 merger related empirical articles published in the four leading finance journals in the last 10 years\(^6\) shows that 85 percent of them analyze US deals, 80 percent investigate acquisitions, and 63 percent of them focus on completed deals. In the rest of the paper, we investigate the validity of findings in the literature which uses predominantly US completed acquisitions using the unrestricted global sample of M&A deals.

3. DESCRIBING GLOBAL M&A ACTIVITY

Panels A and B of Figure 1 plot quantity and dollar volume, respectively, in US, other developed market countries, and emerging market countries in the full sample and CAR sample\(^7\). We use S&P Dow Jones country classification of developed and emerging market countries\(^8\). Global M&A volume (both number and dollar value of deals) shows an increasing trend. Volume increases from 18,676 deals with an aggregated dollar value of 0.73 trillion in 1992 to 31,661 deals with an aggregated dollar value of 1.9 trillion in the first three quarters of 2011. The increase in volume is partially driven by the increasing volume in emerging market countries. The share of emerging market countries in M&A dollar (number) volume increases from 7 (4) percent in 1992 to 24 (33) percent in 2010. We observe the same increasing trend of M&A volume in the CAR sample. The number of deals increases from 5,825 with an aggregated dollar value of 0.35 trillion in 1992 to 6,326 deals with an aggregated dollar value of 0.97 trillion in the first three quarters of 2011. The increase in the quantity (dollar) volume is 70 (157) percent in the full sample and 9 (181) percent in the CAR sample. Hence, the CAR sample is tilted towards larger deals and this tilt is more pronounced in the later years.

\(*\*\*\ Insert Figure 1 \*\*\*

The dominance of developed market countries in the global M&A market decreases from 1992 to 2011. 90 percent of bidders are from developed market countries (including US) in the sub-period 1992

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\(^4\) We do not restrict target country if the bidder is incorporated in one of the 47 countries in the CAR sample and vice versa. Hence, in the bidder CAR sample there are 120 target nations and in the target CAR sample there are 129 bidder nations.

\(^5\) Not-completed deals include withdrawn, pending, status unknown and other deals as defined in SDC.

\(^6\) A Web of Science search for articles whose topic includes “merger” or “acquisition” or “partial sale” in the Journal of Finance, Review of Financial Studies, Journal of Financial Economics, and Journal of Financial and Quantitative Analysis published from 2005 to 2015 yields 280 articles. 139 of these articles are empirical, 34 are theoretical, and 107 are not merger related.

\(^7\) Figure 1 plots volume across target nation. Volume graphs across bidder nations exhibit a similar trend.

\(^8\) We make two exceptions in S&P Dow Jones country classification as of September 2011. We include Argentina and Sri Lanka in emerging market countries. Argentina and Sri Lanka dropped to frontier market classification by S&P in 2009 and 2001, respectively. The remaining countries in the sample are classified as “Other” and included in total volume but not presented separately in Figure 1 since they constitute less than 2 percent in CAR sample.
to 1999 and 75 percent in the sub-period from 2007 to 2011. US deals are the culprit for this decrease in developed market M&A activity. 45 percent of targets and 48 percent of bidders were incorporated in US in the 1992-1999 sub-period while the corresponding shares dropped to 22 and 23 percent in the 2007-2011 sub-period, respectively.

Panel B of Figure 1 shows two spikes in M&A activity, one prior to the downturn in the technology sector in 2000 and one prior to the onset of the sub-prime mortgage crisis in 2007. This pattern in global M&A activity supports merger waves as put forth by studies focusing on US M&A activity (Gort, 1969; Mitchell and Mulherin, 1996; Andrade et al., 2001; Rhoades-Kropf et al., 2004, 2005 and Harford, 2005). McCarthy and Dolsma (2012) review merger studies and identify six merger waves (namely, the first ca.1895-1904, the second ca. 1918-1929, the third ca. 1960-1969, the fourth ca. 1981-1989, the fifth ca. 1991-2001 and the sixth ca. 2003-2008). Our sample period corresponds to the fifth and the sixth wave (ca. 1991-2001 and 2003-2008). M&A activity in which the target is incorporated in an emerging market country shows an increasing trend rather than a wave-like pattern compared to global M&A activity over 1992 to 2011 period. Thus, as the share of emerging market country deals in total M&A volume increase over time, the contribution of emerging market countries in global merger waves become more pronounced.

4. M&A Value Generation and Distribution: Bidder and Target Cumulative Abnormal Returns (CAR)

We use the event study method as described in Brown and Warner (1985) to determine the effect of M&A announcements on shareholder wealth. Estimation window extends from 281 days before announcement to 30 trading days before announcement. Event window covers the 61 trading days around the announcement date. Abnormal return is the difference between observed return and expected return estimated using the market model in the 251 trading days of the estimation window. Abnormal returns for t-days around announcements are summed up to find (2t+1)-day CARs. The standard deviation of abnormal returns is the standard deviation of average daily abnormal returns in the estimation window.

Panels A and B of Table 2 summarize 3-day bidder and target CARs across 47 and 45 countries, respectively. 3-day CARs average 1.51 percent for 181,804 bidders and 8.14 percent for 54,090 targets. As is documented in the literature, merger announcements create value and most of this value accrues to target shareholders. However the magnitudes of CARs in our sample of 218,957 global deals are different from those reported in the literature. The difference in the magnitude of CARs arises from the global nature of the sample and our choice not to apply the common filters used in the literature. Netter et al. (2011) show that the common filters (excluding partial sales, private bidders, small targets, deals without a deal value, and withdrawn deals) used in the literature severely restrict the US acquisition samples. In our sample, partial sales and deals that do not go through constitute 30 percent and 25 percent of the CAR sample, respectively. Hence, restricting the sample to completed acquisitions decreases the number of targets by 73 percent and of bidders by 41 percent. Furthermore, this restriction significantly affects target CARs. The 3-day target CAR increases from 8 percent to 16 percent when the sample is restricted to completed acquisitions.

Both bidder and target CARs in acquisitions are significantly higher than bidder and target CARs in partial sales. Market reaction to acquisitions relative to partial sales indicates that market perceives deals in which bidders acquire control rights to be generating more value for both bidder and target
shareholders. To investigate whether acquisitions generate more value than partial sales, we analyze the combined CAR of bidders and targets. Table 3 reports the 3-day combined, bidder and target CARs. Combined CAR is the value-weighted bidder and target CARs according to book value of assets. The 3-day combined CARs average 1.81 percent in 14,510 deals. Table 3 confirms that acquisitions generate more value for hypothetically combined firm shareholders (combined CAR of 2.5 percent) compared to partial sales (combined CAR of 1 percent). Both Table 2 and 3 indicate that target shareholders enjoy the lion share’s of the value generated. In Table 2 (Table 3), Target CARs average 14 (17) percent in acquisitions and 5 (6) percent in partial sales.

Our results indicate that bidders pay a premium to purchase control rights. This finding is in line with Chari et al. (2010) and Hekimoglu and Tanyeri (2011). Hekimoglu and Tanyeri (2011) analyze Turkish M&A deals and find that target CARs are higher (8.6 percent) in acquisitions compared to partial sales (2.25 percent). Chari et al. (2010) investigate bidders from nine developed market countries and targets from forty-two emerging markets and also find that CARs are significantly positive (1.16 percent) for acquisitions and significantly negative (-0.02 percent) for partial sales.

Panels A and B of Table 2 show that restricting the CAR sample to acquisitions that successfully go through decreases the number of targets by 73 percent and of bidders by 41 percent. Furthermore, this restriction and the smaller sample size also affect CARs. The 3-day CAR for targets increases from 8 percent to 16 percent when the sample is restricted to completed acquisitions. A review of M&A articles revealed that the majority focused on completed acquisitions in US. Target CARs in completed US acquisitions averaged 21 percent and bidder CARs averaged 1.7 percent. These CARs are comparable to the findings of studies that sample completed US acquisitions (Mulherin and Boone, 2000; Bauguess et al., 2009; Netter et al., 2011; Alexandridis et al., 2012). However we find significant differences in target CARs for completed acquisitions versus acquisitions that are not completed and for partial sales versus acquisitions.

Investors do not know ahead of time whether a deal will successfully go through or not. Hence, the difference in market reactions to completed acquisitions (target CARs of 16 percent) relative to acquisitions that are not completed (target CARs of 11 percent) raises questions. If investors can accurately anticipate which deals will successfully go through, markets may react more positively to these announcements. Merger arbitrage strategies of hedge funds may also bid up the price of target shares around announcements (Baker and Savaşoğlu, 2002). The finding of higher target CARs for completed deals is in line with prior literature. Savor and Lu (2009) and Hekimoglu and Tanyeri (2011) report higher target CARs to successfully completed deals compared to unsuccessful ones.

4.2 CARs by bidder and target nation

Table 2 shows that CARs differ according to bidder and target nation. Developed-country bidders and targets enjoy higher CARs (1.6 and 9.6 percent, respectively) relative to emerging-country bidders and targets (0.7 and 2.9 percent, respectively). Mulherine and Boone (2000), Andrade et al. (2001), Moeller et al. (2004), Baugess et al. (2009), Cai et al. (2011), and Alexandridis et al. (2012 and 2013) are representative studies that sample US acquisitions which successfully go through with announcement dates ranging from 1973 to 2009. These studies find 3-day bidder CARs that range from -1.75 percent to 1.10 percent and target CARs that range from 16 percent to 22 percent. Campa and Hernando (2004 and 2006), Georgen and Renneboog (2004), Craninckx and Huyghebaert (2011), and Martynova and Renneboog (2011) study acquisitions in developed European countries with announcement dates.

To calculate combined CARs, we require that both bidder and targets have return data which severely restricts the sample to about 7 percent of the CAR sample. This sample restriction also changes bidder and target CARs. Table 2 covers public-private, public-public, and private-public bidder and target pairs whereas Table 3 only covers public-public bidder and target pairs. On the one hand, CARs of bidders whose targets are public realize lower CARs relative to bidders of private targets. On the other hand, targets of public bidders enjoy higher CARs relative to targets of private bidders.

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ranging from 1997 to 2006. 3-day bidder CARs are approximately 1 percent (ranging from -0.87 percent to 0.78 percent) and similar to CARs in US. However, European target CARs are lower than US target CARs and are approximately 10 percent.

Panel A and B of Figure 3 plots bidder and target 3-day CARs, respectively, in acquisitions across 47 countries. Black and white bars denote developed and emerging market countries, respectively. Figure 3 shows that country-level CARs within developed and emerging market country groups also differ. Bidder CARs range from -1 percent in Hungary to 3.4 percent in Canada. Bidder CARs are positive in 45 countries (significant in 36) and negative in only 2 (significant in 1) countries. Results indicate that mergers generate value for bidder shareholders around the world. Target CARs range from -0.2 percent in Russia to 19.5 percent in US. Target CARs are positive and significant in 43 countries. Target CARs are positive and insignificant in Czech Republic and negative and insignificant in Russia. The largest 13 target CARs (ranging from about 10 to 20 percent) are in developed market countries. Results indicate that mergers generate more value for target shareholders in developed market countries compared to emerging market countries.

Two factors may explain the difference in magnitude of target CARs between developed and emerging market countries. First, stock prices may not reflect all available, relevant information in emerging market countries due to lack of market. Second, the effect of M&A announcements might be reflected in stock prices prior to announcement date if there are information leakages in emerging market countries or investors anticipate deals prior to announcement.

The use of SDC announcement day may affect our results. Mulherin and Şimşir (2015) and Arslan and Şimşir (2015) question the accuracy of SDC announcement dates. Mulherin and Şimşir (2015) document abnormal price movements earlier than the SEC announcement date due to merger-related events (such as merger rumors or search-for buyer types of announcements) in about 24 percent of deals in their sample of US deals. Arslan and Şimşir (2015) find a higher frequency of pre-announcement merger-related events (74.3 percent) for Turkey over 2005-2011 period. They argue that the higher frequency of merger related events taking place before official SDC announcement dates may partially explain the lower wealth effects of mergers in emerging market countries compared to developed markets.

5. CONCLUSION

Global merger activity follows a pro-cyclical pattern. Both quantity and dollar volume of M&A activity peaks before 2000 and 2007 stock market crashes and rebounds after. The pro-cyclical pattern is driven by M&A activity in developed markets. We do not observe this pro-cyclical pattern in emerging market countries. M&A activity in emerging market countries shows an increasing trend in both quantity and dollar volume. Furthermore, the share of developed market countries in total M&A volume is diminishing while that of emerging market countries is increasing.

In our global sample of deals across 47 countries, M&A activity is value creating. Mean 3-day CAR for hypothetically-combined bidder and target firms is significant at 1.8 percent. In the CAR sample, we include acquisitions and partial sales as well as deals that are completed and not completed. Moreover, we do not restrict the sample to public firms and do not filter out based on deal size. The CARs reported in literature are based on samples of completed acquisitions. When we apply the common sampling filter of using completed acquisitions, target 3-day CARs significantly increase from 8 to 16 percent globally and from 14 to 21 percent in US. Global 3-day target CARs in acquisitions is 14 percent and significantly different than CARs of 4.5 percent in partial sales. We find that targets enjoy lower returns in partial sales and deals that do not go through.

Target and bidder shareholders realize significant 3-day CARs in 43 out of 45 and 36 out of 47 countries, respectively. Both target and bidder shareholders earn higher CARs in developed markets.

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This difference can be attributed to two factors. First, there may be differences in the level of market efficiency between developed and emerging market countries. If emerging markets are less efficient due to differences in legal environments, the level of competition and/or other country specific factors, this may hinder stock prices to reflect all available, relevant information. Second, if there are information leakages in emerging market countries and/or if emerging market country investors more accurately anticipate mergers compared to developed market country investors then the effect of M&A announcements might be reflected in stock prices prior to announcement date in emerging market countries.
Figure 1: Volume of Deals over time by Target Nation (Quantity and Dollar value)

Figure 1 plots the total number of deals and aggregated dollar deal value from 1992 to 2011 by target nation. Panels A and B plot number of deals and dollar volume for full and CAR sample. All dollar values are in September 2011 dollars.

Panel A: Number of deals over time

Panel B: Dollar volume over time

Figure 2: Event Study Timeline
Table 1: Descriptive statistics for sample of M&As: 1992-2011
Table presents the descriptive statistics for the full sample and sample with return data (CAR sample). All dollar values are in September 2011 dollars.

<table>
<thead>
<tr>
<th></th>
<th>Full sample</th>
<th>CAR sample</th>
</tr>
</thead>
<tbody>
<tr>
<td># of deals</td>
<td>663,933</td>
<td>218,957</td>
</tr>
<tr>
<td># of deals with disclosed dollar value</td>
<td>280,609</td>
<td>124,920</td>
</tr>
<tr>
<td>% of deals with disclosed dollar value</td>
<td>42</td>
<td>57</td>
</tr>
<tr>
<td>Total deal volume (trillion $)</td>
<td>53</td>
<td>35</td>
</tr>
<tr>
<td>Average deal value (million $)</td>
<td>190</td>
<td>278</td>
</tr>
<tr>
<td># of target nations</td>
<td>223</td>
<td>45</td>
</tr>
<tr>
<td># of bidder nations</td>
<td>200</td>
<td>47</td>
</tr>
<tr>
<td>Acquisition (% of quantity)</td>
<td>75</td>
<td>69</td>
</tr>
<tr>
<td>Completed (% of quantity)</td>
<td>77</td>
<td>75</td>
</tr>
<tr>
<td>USA deals (% of quantity)</td>
<td>33</td>
<td>40</td>
</tr>
<tr>
<td># of deals with both target &amp; bidder return data</td>
<td>32,243</td>
<td>16,937</td>
</tr>
</tbody>
</table>
Table 2: 3-day bidder and target CARs
Panel A and B report 3-day bidder and target CARs for all countries, developed and emerging market country groups. Numbers in parentheses shows the sample size. All reported CAR values in Table 2 are statistically significant at %1 level.

### Bidder 3-day CAR

<table>
<thead>
<tr>
<th>Country Class</th>
<th>#</th>
<th>CAR sample</th>
<th>Completed Acquisition</th>
<th>Acquisition</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes (Partial Sale)</td>
<td></td>
</tr>
<tr>
<td>All Countries</td>
<td>47</td>
<td>1.51%</td>
<td>1.49%</td>
<td>1.76%</td>
<td>0.67%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(181,804)</td>
<td>(107,778)</td>
<td>(139,244)</td>
<td>(42,560)</td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Developed</td>
<td>25</td>
<td>1.62%</td>
<td>1.53%</td>
<td>1.85%</td>
<td>0.74%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(158,947)</td>
<td>(99,691)</td>
<td>(125,284)</td>
<td>(33,663)</td>
</tr>
<tr>
<td>United States</td>
<td>1</td>
<td>1.97%</td>
<td>1.69%</td>
<td>2.12%</td>
<td>0.73%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(67,719)</td>
<td>(50,947)</td>
<td>(60,691)</td>
<td>(7,028)</td>
</tr>
<tr>
<td>Other Developed</td>
<td>24</td>
<td>1.35%</td>
<td>1.37%</td>
<td>1.6%</td>
<td>0.74%</td>
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<tr>
<td></td>
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<td>(91,228)</td>
<td>(48,744)</td>
<td>(64,593)</td>
<td>(26,635)</td>
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<tr>
<td>Emerging</td>
<td>22</td>
<td>0.74%</td>
<td>0.95%</td>
<td>0.94%</td>
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<tr>
<td></td>
<td></td>
<td>(22,857)</td>
<td>(8,087)</td>
<td>(13,960)</td>
<td>(8,897)</td>
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### Target 3-day CAR

<table>
<thead>
<tr>
<th>Country Class</th>
<th>#</th>
<th>CAR sample</th>
<th>Completed Acquisition</th>
<th>Acquisition</th>
<th>Completed</th>
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<td></td>
<td></td>
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<td>Yes</td>
<td>No</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Countries</td>
<td>45</td>
<td>8.14%</td>
<td>15.62%</td>
<td>14.06%</td>
<td>4.47%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(54,090)</td>
<td>(14,368)</td>
<td>(20,725)</td>
<td>(33,365)</td>
</tr>
<tr>
<td>Developed</td>
<td>25</td>
<td>9.56%</td>
<td>16.87%</td>
<td>15.46%</td>
<td>5.18%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(42,629)</td>
<td>(12,866)</td>
<td>(18,137)</td>
<td>(24,492)</td>
</tr>
<tr>
<td>United States</td>
<td>1</td>
<td>14%</td>
<td>21.22%</td>
<td>19.46%</td>
<td>6.07%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(14,798)</td>
<td>(6,360)</td>
<td>(8,764)</td>
<td>(6,034)</td>
</tr>
<tr>
<td>Other Developed</td>
<td>22</td>
<td>7.19%</td>
<td>12.62%</td>
<td>11.72%</td>
<td>4.89%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(27,831)</td>
<td>(6,506)</td>
<td>(9,373)</td>
<td>(18,458)</td>
</tr>
<tr>
<td>Emerging</td>
<td>22</td>
<td>2.88%</td>
<td>4.9%</td>
<td>4.25%</td>
<td>2.49%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(11,461)</td>
<td>(1,502)</td>
<td>(2,588)</td>
<td>(8,873)</td>
</tr>
</tbody>
</table>
Table 3: 3-day bidder, target and Combined CARs

Table 3 describes 3-day combined, bidder and target CARs for the sample of 14,489 deals for which we can calculate Combined CARs. Combined CAR is the value-weighted bidder and target CARs according to book value of assets. *** denote statistical significance at the 1% level.

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Combined CAR</th>
<th>Bidder CAR</th>
<th>Target CAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full CAR Sample</td>
<td>14,489</td>
<td>1.82%***</td>
<td>-0.09%</td>
</tr>
<tr>
<td>Acquisition</td>
<td>7,524</td>
<td>2.52%***</td>
<td>-0.51%***</td>
</tr>
<tr>
<td>Partial Sales</td>
<td>6,965</td>
<td>1.06%***</td>
<td>0.36%***</td>
</tr>
<tr>
<td>Deal Status</td>
<td>Completed</td>
<td>11,382</td>
<td>1.78%***</td>
</tr>
<tr>
<td>Not Completed</td>
<td>3,107</td>
<td>1.97%***</td>
<td>-0.11%</td>
</tr>
</tbody>
</table>
Figure 3: 3-day CARs for Acquisitions by Country (1992-2011)

Figure presents the bidder and target mean 3-day CARs by nation graphically for acquisitions in panels A and B, respectively. The developed market countries are represented by black horizontal bars and emerging market countries are represented by white bars.

PANEL A: BIDDER 3DAY CAR(%)  
PANEL B: TARGET 3DAY CAR(%)
REFERENCES


