The 52-Week High and M&A Deals: International Evidence

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Abstract: Motivated by the seminal findings of Baker et al. (2012) and Ma et al. (2019), we examine the effects of stocks' 52-week highs on mergers and acquisitions (M&A) in a global sample across 34 countries. First, we confirm that the targets' past stock price peaks serve as a reference point in merger negotiations, impacting both offer premia and the likelihood of deal acceptance. Second, we confirm that acquirers trading far below their 52-week high experience more positive market reactions. However, economic magnitude and statistical significance substantially differ across regions. In sum, the 52-week high plays a smaller role for M&A deals internationally compared to in the United States.

Keywords: Mergers, Acquisitions, 52-Week High, Reference Point, Anchoring, Offer Price, Behavioral Corporate Finance, International Mergers

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1. INTRODUCTION

A stock's highest price of the past year, the 52-week high, is a salient reference point in financial markets and has received increasing attention in the mergers and acquisitions (M&A) literature (e.g., Baker et al., 2012; Ma et al., 2019). There is strong evidence that both the target's and the acquirer's 52-week high affect M&A outcomes in the United States (US). Baker et al. (2012) (hereafter: BPW) show that offer premia are higher for target stocks trading far from their past peak prices and that deal acceptance is more likely if the offer price exceeds the 52-week high. Hence, both parties seem to use past price peaks as an anchor for the fair offer price (Tversky and Kahneman, 1974). In addition, Ma et al. (2019) (hereafter: MWZ) find that announcement returns of acquirers trading close to their 52-week high are systematically lower, in line with their perceived valuation hypothesis. This hypothesis predicts that investors perceive stocks close to (far from) their 52-week high as overvalued (undervalued) and update prices around M&A announcements accordingly. Hence, the findings of MWZ question the M&A literature's common use of acquirer announcement returns as an objective measure of value creation.

In this paper, we explore how the 52-week high of targets and acquirers affects M&A outcomes in a large deal sample with 17,155 public targets and 42,320 public acquirers across 34 countries. We study the effect of the 52-week high on the global market for corporate control, as M&A deals are of large economic importance (Aktas et al., 2021) and among the most critical financial decisions companies face (Dasgupta et al., 2023). If decision making in M&A deals was systematically distorted by an economically immaterial reference point such as the 52-week high, this would imply that behavioral biases cause inefficiencies in the market for corporate control. To the best of our knowledge, we provide

the most comprehensive analysis of the effects of the 52-week high in international M&A deals. This allows us to reveal previously unknown regional differences in international transactions.

In line with BPW, we find that offer premia are higher for targets trading far below their 52-week high. Compared to the US, however, the effect of the target's 52-week high on the offer premium is much smaller internationally and mainly limited to stocks trading relatively close to their past price peak. For stocks trading further away from their 52-week high, the effect is even reversed. The reduced effect size in our international sample is subject to geographical disparities: While the anchoring effect on offer premia is statistically significant in continental Europe, Asia-Pacific, and the United Kingdom (UK), we find insignificant coefficients in the Americas (excluding the US) and Japan. In Japan, we even find the opposite effect, as targets trading further away from their 52-week high receive lower offer premia. Conversely, we observe a discontinuous jump in the likelihood of deal success when the offer price exceeds the 52-week high, which is larger internationally (10.48%) than in the US (6.18%). Notably, target shareholders in the Asia-Pacific region, Japan, and the UK seem to respond particularly positively to offers just above the past price peak. Overall, we conclude that the target's 52-week high has an effect on offer premia that is muted internationally, while anchoring among target shareholders is at least as strong internationally as in the US. Moreover, the negative effect of the acquirer's current stock price relative to its 52-week high on the short-term stock market reaction documented by MWZ is statistically significant but of reduced economic magnitude in the pooled sample of international M&A transactions. Notably, however, the effect of the acquirer's 52-week high on the cumulative abnormal returns (CARs) around the announcement fails to reach statistical significance in four out of five international regions and is sensitive to the chosen event window for the announcement returns.

In the previous literature, the evidence of the 52-week high's influence on M&A deals is largely limited to the US or focused on small individual markets. Importantly, however, several key determinants of M&A characteristics such as ownership, stock market conditions, and corporate governance structures differ systematically between countries, leading to systematically different M&A characteristics and outcomes (Faccio and Masulis, 2005). Moreover, there is robust evidence that stock market anomalies that depend on past stock prices, such as momentum and the 52-week high effect, differ across countries (Asness et al., 2013; Jacobs, 2016; Büsing et al., 2022). Therefore, the question arises as to whether and how reference prices affect M&A deals outside of the US. Until now, Smith et al. (2019) provide the only empirical analysis of 52-week high effects in international M&A deals. However, they focus on the effect of the targets' 52-week highs on offer premia, and their analyses are restricted to a relatively small sample of 1,597 deals across 16 countries. In addition, Ranganathan and Singh (2021) show that the distance to the 52-week high positively affects offer premia in India, while Stepanova et al. (2018) show that Russian stocks trading closer to their 52-week high have, on average, lower announcement returns. Overall, the evidence on the effect of the 52-week high in international M&A transactions is limited.

A thorough investigation of the properties of our international sample emphasizes the importance of investigating M&A phenomena in non-US markets for two reasons. First, deal characteristics and outcomes differ significantly between US and non-US takeovers. For example, public acquirers in our international sample experience strongly positive market reactions to their M&A announcements with an average CAR of 3.00%, which exceeds the US average of 1.81% in every region. Moreover, non-US targets receive far lower average

offer premia (7.20%) compared to their US counterparts (29.55%), driven in particular by low premia in the Asia-Pacific region and in Japan. Second, our sample demonstrates the growing size of international M&A markets. More specifically, the number of deals in the Asia-Pacific region alone has exceeded the number of deals in the US since 2007, with increasing deal numbers in all regions except the US since the turn of the millennium.

Our contribution to the literature is mainly threefold. First, we add to the ongoing discussion on the influence of reference prices on financial markets. While the 52-week high has been considered an important characteristic in asset pricing (e.g., George and Hwang, 2004; Barberis and Xiong, 2009; Li and Yu, 2012; Driessen et al., 2013; George et al., 2018), the interest in anchoring effects in corporate finance decisions has recently grown. Evidence from M&A transactions (Baker et al., 2012; Ma et al., 2019; Lee and Yerramilli, 2022) and seasoned equity offerings (Hovakimian and Hu, 2020) suggests that corporate executives and investors use the 52-week high as a reference point for the fair value of a stock. Both managers and investors seem to use the 52-week high as a starting point for estimating the fair value and insufficiently adjust from it. Hence, stocks trading further away from their 52-week high are perceived as undervalued. According to the asset pricing literature, this anchoring effect results in an overvaluation (undervaluation) of stocks trading far from (close to) their 52-week high (George and Hwang, 2004). We add to this literature by providing further evidence that people tend to anchor on the 52-week high in an M&A context in line with BPW and MWZ. More specifically, we exploit our large international sample to show that the presented effects of both the target's and the acquirer's 52-week high generally hold in international markets and that the effects persist globally after the respective publication date of the studies by BPW and MWZ. Thus, our paper provides out-of-sample evidence for the 52-week high's role in M&A deals in line with the 52-week high serving as an anchor in management negotiations and with the perceived valuation hypothesis, although the effects are muted internationally and differ between subregions.

Second, our findings have important implications for the literature on acquirer announcement returns, which are perhaps the most common measure of value creation in M&A deals (Ben-David et al., 2020).¹ Most studies implicitly assume that investors process M&A announcements rationally, such that the announcement stock return reflects the deal's value creation (or destruction). In line with prior research showing that bidder CARs are biased due to investor inattention (Louis and Sun, 2010; Reyes, 2018) or investor sentiment (Rosen, 2006; Danbolt et al., 2015), the findings from Ma et al. (2019) present another serious challenge to that standard interpretation of acquirer CARs. If investors succumb to the anchoring effect when processing M&A information, stock market reactions are systematically distorted. This, in turn, would raise doubts about parts of the M&A literature, which rely on bidder CARs as a measure of value creation. Since our results show that the documented effect of the acquirer's 52-week high on their respective announcement returns transmits to international M&A deals, these concerns about acquirer CARs as pure measures of value creation are amplified.

Third, we add to the overarching question of to what extent capital market phenomena identified in the US translate to other regions. While the majority of financial research builds on US data (Karolyi, 2016), the underlying economic activity is more evenly spread across the globe. For example, approximately 50% of the M&A deals in our sample are initiated by non-US bidders. Moreover, the mere existence of a phenomenon in the US does not imply that the same finding holds globally (see, for example, the lack of stock price momentum in Japan documented by Asness, 2011). With respect to the 52-week high,

¹The extensive literature on the stock market's reaction to M&A announcements is, for example, surveyed in Jensen and Ruback (1983), Jarrell et al. (1988), and Andrade et al. (2001).

evidence from the empirical asset pricing literature suggests that it predicts subsequent returns in several international markets, albeit not in all (Liu et al., 2011; Büsing et al., 2022). Therefore, we investigate whether the findings regarding the 52-week high in M&A deals hold in international markets outside the US. Examining whether anomalies in the market for corporate control translate to different markets is particularly valuable, since the laws governing corporate takeovers, corporate governance structures, and capital market conditions in the US are hardly representative of other markets, (see, e.g., Faccio and Masulis, 2005). Our results suggest that anchoring on the target's 52-week high as well as the effect of acquirer reference prices transcend different economies, law regimes, and governance systems. However, there are substantial differences between regions that result in smaller effect sizes internationally than in the US.

The remainder of the paper is organized as follows. Section 2 introduces the data sources, key variables, and summary statistics of our global M&A sample. Section 3 presents international evidence for the effects of the target's 52-week high on M&A outcomes documented by BPW. Section 4 replicates the findings of MWZ internationally before Section 5 concludes.

2. Data

2.1. Sources

We form a sample of global takeovers spanning acquirers and targets from 34 countries. We categorize these countries following the MSCI classification into six mutually exclusive regions: Europe (without the UK), the Asia-Pacific region (without Japan), the Americas (without the US), the UK, Japan, and the US.² Our M&A sample consists of all takeover bids between January 1, 1977, and December 31, 2020 reported by the Thomson Reuters Securities Data Company (SDC) database with either the target or the acquirer headquartered within the considered 34 countries. We focus on attempted takeovers of bidders that hold less than 50% of the target's shares before the deal and aim at holding more than 50% afterwards. Following Ma et al. (2019), we exclude micro deals with reported deal values below one million US dollars (USD) and deals with a relative size lower than 5% or higher than 200% of the bidder's equity. Similarly, we exclude publicly listed bidders with a market capitalization below 10 million USD. We also exclude recapitalizations, repurchases, rumors, buybacks, and self-tenders (cf., Baker et al., 2012). For US firms, we obtain accounting data from Compustat and stock market data from the Center for Research in Security Prices (CRSP). For international firms, we draw both accounting and stock market data from Datastream. Since our main variable of interest is the 52-week high of targets and acquirers, we require the respective firm to be publicly listed. We separately examine two subsamples of public targets and public acquirers, which we call "target sample" and "acquirer sample" in the following. Within the target (acquirer) sample, the country of the deal is specified by the country of the target's (acquirer's) headquarters. For example, a Japanese deal in the target (acquirer) sample is a deal with a public Japanese target (acquirer). The acquirer (target) in this deal can be a public or private firm from any country in the world (even countries other than the 34 countries mentioned above).

²We follow the regional classification convention drawn from MSCI's website: https://www.msci.com/ index-country-membership-tool. Europe comprises the countries Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, and Switzerland. The Asia-Pacific region includes the countries Australia, China, Hong Kong, India, Indonesia, Malaysia, New Zealand, the Philippines, Singapore, South Korea, Taiwan, and Thailand. The Americas include Brazil, Canada, Chile, Colombia, and Mexico.

With respect to our international data, we implement additional filters to clean up the data. For the international return data, we follow Griffin et al. (2010) and Ince and Porter (2006) and use several standard filters to prevent data errors. More specifically, we exclude daily returns over 100% that are reversed within one day. Daily returns over 200% are also set to missing. We further delete all zero returns that Datastream reports after a stock's delisting. Regarding the international accounting data, we delete all observations past a company's inactive date and drop all data points where all the main accounting variables are missing simultaneously, as these indicate points in time before a company filed reports.

2.2. Variables

Dependent Variables. To examine the impact of the 52-week high on M&A deals, we employ several dependent variables also considered by BPW and MWZ. Specifically, we define the *Offer Premium* as the log difference between the price offered per share and the target's stock price 30 days before the M&A announcement. Furthermore, we define *Deal Success* as a dummy variable equal to 1 if a bid is accepted and 0 otherwise. To measure the market reaction to M&A announcements, we employ an event study methodology, calculating the acquirer's cumulative abnormal return, *ACAR*, over an asymmetric seven-day event window [-5;+1]³ around the M&A announcement date in line with MWZ. We use returns in excess of the respective country's market index return to compute abnormal returns.

Independent Variables. Our main explanatory variables are the 52-week high (52*WH*) of the target as defined in BPW and the reference price ratio (*RPR*) as defined in MWZ. The 52*WH* is calculated as the log difference between the target's highest stock price over the 335 days ending 30 days prior to the M&A announcement and the stock price 30 days prior

³Results for the commonly used symmetric event window of [-1;+1] are reported in the Online Appendix.

to the M&A announcement. *RPR* is computed as the ratio of the stock price six days before the M&A announcement relative to the stock's highest price over the 252 preceding trading days.⁴

Following BPW and MWZ, we control for a standard set of deal, acquirer, and target characteristics in the respective regressions (see, e.g., Moeller et al., 2007; Golubov et al., 2012; El-Khatib et al., 2015; Dessaint et al., 2017). We briefly introduce all included control variables in the following and provide greater detail on the calculations based on US and international data in Table A1 in the Appendix. *Cash* (*Stock*) is a dummy variable indicating whether a deal's payment mix consists fully of cash (stock), as the chosen payment structure affects both the Offer Premium and ACAR (e.g., Hansen, 1987; Officer et al., 2009; de La Bruslerie, 2013). *Hostile* and *Tender Offer* indicate whether SDC classifies the deal accordingly (Jensen and Ruback, 1983; Servaes, 1991; Lang et al., 1991). Financial Buyer indicates whether SDC records the involvement of a financial sponsor. Private *Target* is a dummy variable equal to 1 if the target is either a private firm or a subsidiary and 0 otherwise. Following Cai et al. (2011), we include the dummy variable *Dormant*, indicating whether the acquirer operates in an industry, classified using the four-digit standard industrial classification (SIC) code, in which no corporate takeover has occurred within the past year. *Same Industry* indicates whether acquirer and target operate in the same two-digit SIC industry. We define *Toehold* as a dummy variable equal to 1 if the acquirer holds more than 5% of the target's shares before the deal and 0 otherwise. The dummy Cross Border indicates whether the acquirer and the target are headquartered in different countries. *Relative Size*, incorporating the findings of Asquith et al. (1983), is

⁴Note that 52*WH* and *RPR* require a different interpretation. 52*WH* is always positive and larger for stocks further away from their 52-week high, while *RPR* always lies between 0 and 1, being smaller for stocks further away from their 52-week high.

calculated as the ratio of the reported deal value excluding liabilities to the acquirer's market capitalization at the prior calendar year's end.

Furthermore, we follow BPW and MWZ by controlling for target and bidder characteristics in the respective analyses. Importantly, we include accounting characteristics from the previous fiscal year before the M&A announcement such that no forward-looking information is included following prior studies (e.g., Masulis et al., 2007; Golubov et al., 2015). In addition, we measure all variables in USD to ensure comparability within our global sample and winsorize all non-binary variables at the 1st and 99th percentiles (cf. Dessaint et al., 2021). In line with BPW, we define a target's return on assets, *Target ROA*, as the ratio of net income to total assets, while *Target B/M* is calculated as the sum of shareholders' equity, deferred taxes, and investment tax credit minus preferred stock's redemption value (if missing: liquidation value), expressed relative to the target's market equity value at the prior fiscal year's end. Target Size is the natural logarithm of market equity in thousands, which is calculated as the product of shares outstanding and the stock price 30 days prior to the M&A announcement. *Target Volatility* is defined as the standard deviation of daily stock returns over the 335 calendar days ending 30 days prior to the announcement, while *Target Past Return* is the raw stock return measured over the same period.

In line with MWZ, we calculate *Bidder Ln(B/M)* as the logarithmic ratio of the acquirer's market capitalization measured at the end of the fiscal year to shareholders' equity to account for bidder opportunism, as documented by Rhodes-Kropf et al. (2005), Dong et al. (2006), and Lohmeier and Schneider (2023). Following MWZ, we define *Bidder Size* as the natural logarithm of the acquirer's market capitalization in millions, calculated as the product of shares outstanding and stock price at the end of the prior calendar year. Lastly, controlling for the effect of the acquirer's leverage (Maloney et al., 1993), *Bidder Leverage* is

calculated as the difference between total assets and shareholder's equity standardized by total assets. *Bidder Past Return* is defined as the acquirer's raw stock return over the 252 trading days ending six days prior to the announcement. We control for year and industry fixed effects based on the announcement date and the Fama and French (1997) 49-industry classification where indicated.

2.3. Summary Statistics

Our target sample consists of 8,626 US and 8,529 international M&A transactions, while the acquirer sample consists of 22,174 US and 20,146 international deals. We report the mean and the median values of all variables separated by region in Table 1 for both samples in Panel A and B, respectively.⁵ Table 2 reports the average deal characteristics separately for our regional subsamples comprising Europe (excluding UK), Asia-Pacific (excluding Japan), the Americas (excluding US), the UK, and Japan. Additional descriptive statistics are reported in the Online Appendix.

While the summary statistics for the US target sample (Panel A of Table 1) closely resemble the dataset of BPW, the international sample differs notably. The mean *Offer Premium* is significantly smaller internationally (7.20%) than in the US (29.55%), which is driven particularly by very low premia in the Asia-Pacific region (2.08%) and in Japan (4.29%) as shown in Table 2. Moreover, targets are substantially less likely to accept offers internationally (*Deal Success* = 74%) than in the US (*Deal Success* = 79%). The lower rate of *Deal Success* outside of the US is again driven by the Asia-Pacific region, which has by far the lowest rate among all regions (64%). This could arguably be a consequence of the lower offer premia paid in this region. International acquisitions involving publicly listed target

⁵We allocate a deal in Panel A of Table 1 to a region when the target's headquarters are based in this region. In Panel B the allocation to a region is based on the location of the bidder's headquarters.

Table 1. Summary Statistics - Comparison of US and International M&A Deals

This table displays the mean and the median for the main variables used in our analyses for both US and international deals within our sample. Panel A compares the statistics based on deal and target characteristics for the sample of publicly listed targets in the US and internationally, whereas Panel B reports deal and acquirer characteristics for the sample of publicly listed acquirers in the US and internationally. The last two columns display the difference in means between US and international deals and the corresponding *t*-value. All variables are described in Table A1 in the Appendix. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Unite	ed States	Intern	national	Difference	in Means
	Mean	Median	Mean	Median	Difference	<i>t</i> -value
Panel A: Target Sample	e					
Deal Characteristics						
Offer Premium (%)	29.55	28.25	7.20	8.34	22.35***	(37.38)
Deal Success	0.79	1.00	0.74	1.00	0.05***	(6.44)
Cash	0.43	0.00	0.47	0.00	-0.04***	(-5.83)
Stock	0.21	0.00	0.08	0.00	0.12***	(23.23)
Hostile	0.08	0.00	0.04	0.00	0.05***	(13.43)
Tender Offer	0.21	0.00	0.20	0.00	0.01	(1.11)
Financial Buyer	0.05	0.00	0.02	0.00	0.03***	(9.00)
Target Characteristics						
52WH (%)	34.52	20.45	39.42	27.38	-4.91***	(-7.73)
Target ROA (%)	-2.12	1.76	-7.78	0.85	5.66***	(10.49)
Target B/M (%)	79.30	67.41	99.52	62.06	-20.22***	(-2.70)
Target Size	11.81	11.69	11.53	11.35	0.28***	(10.00)
Target Volatility (%)	3.52	2.98	3.52	3.13	-0.00	(-0.14)
Target Past Return (%)	10.82	5.86	16.29	0.41	-5.47***	(-5.18)
Panel B: Acquirer Sam	ple					
Deal Characteristics	I					
ACAR (%)	1.81	0.90	3.00	1.38	-1.19***	(-12.45)
Cash	0.23	0.00	0.26	0.00	-0.03***	(-6.49)
Stock	0.19	0.00	0.13	0.00	0.06***	(16.65)
Private Target	0.73	1.00	0.83	1.00	-0.10***	(-25.49)
Hostile	0.02	0.00	0.01	0.00	0.01***	(8.67)
Tender Offer	0.04	0.00	0.05	0.00	-0.00	(-0.65)
Dormant	0.02	0.00	0.01	0.00	0.01***	(6.18)
Same Industry	0.62	1.00	0.45	0.00	0.16***	(34.04)
Toehold	0.08	0.00	0.08	0.00	-0.01***	(-2.63)
Cross Border	0.12	0.00	0.28	0.00	-0.16***	(-43.23)
Relative Size	0.31	0.17	0.27	0.15	0.04***	(11.94)
Bidder Characteristics						
RPR	0.81	0.86	0.79	0.84	0.01***	(7.42)
Bidder Ln(M/B)	0.75	0.68	0.56	0.51	0.19***	(23.25)
Bidder Size	5.72	5.67	5.54	5.49	0.18***	(10.10)
Bidder Leverage	0.56	0.56	0.51	0.51	0.06***	(21.24)
Bidder Past Return	0.33	0.17	0.29	0.11	0.04***	(4.65)

companies are less (more) likely to be financed by stock (cash) than their US counterparts. This phenomenon is particularly pronounced in Europe, the UK, and Japan, where cash payments are far more common. Furthermore, hostile takeovers and the involvement of financial sponsors are much less likely internationally. The target's mean 52*WH* is higher internationally (39.42%) than in the US (34.52%), indicating that international targets trade further away from their past peak stock prices. Moreover, international public targets are significantly less profitable, have higher book-to-market ratios, are smaller, and have experienced higher returns in the past year compared to their US counterparts.

Panel B of Table 1 compares US and international M&A deals initiated by public acquirers. Again, our US sample is highly comparable to the data employed by MWZ despite the prolonged sample period. Stark differences exist, however, between US and international deals. Most notably, ACAR is significantly higher for international deals (3.00%) than for US deals (1.81%), indicating a better reception of M&A announcements internationally. This pattern holds for all geographic subsamples, as Table 2 documents that ACAR ranges from 1.93% in the Americas to 3.55% in the Asia-Pacific region. Similar to data in the target sample, US deals of public acquirers are significantly less (more) likely to be paid in cash (stock). Moreover, in line with the high capital market orientation in the US (La Porta et al., 1997), US deals include fewer private targets, more hostile deals, and larger relative target sizes. Notably, cross-border deals are far less likely in the US (12%) than internationally (28%), pointing to a high integration of the market for corporate control in Europe (*Cross Border* = 50%) and other international regions. Additionally, US acquirers more commonly focus on dormant target industries and are on average slightly less likely to possess a toehold in their targets. The average acquirer's *RPR* is significantly larger in the US (81%) than in the rest of the world (79%), although the difference is economically negligible. Bidders in the US also have, on average, higher market-to-book ratios, larger market capitalizations, are more levered, and experienced higher returns in

the year prior to the deal, closely mirroring our observations for the target sample. Overall,

the summary statistics in Table 1 and Table 2 strongly suggest that M&A deals in the US

differ from international acquisitions across nearly all dimensions, emphasizing that the

effects documented by BPW and MWZ deserve examination on an international level.

Table 2. Summary Statistics – International Subsamples

This table displays the mean values for the main variables used in our analyses for the international deals within our sample. Panel A displays the means of deal and target characteristics for the sample of publicly listed targets in Europe, the Asia-Pacific region, the Americas, the UK, and Japan. Panel B displays the means of deal and acquirer characteristics for the sample of publicly listed acquirers in the same subregions.

	Europe	Asia-Pacific	Americas	UK	Japan
Panel A: Target Samp	ole				
Offer Premium (%)	14.62	2.08	23.26	28.07	4.29
Deal Success	0.85	0.64	0.81	0.80	0.87
Cash	0.54	0.41	0.45	0.68	0.66
Stock	0.10	0.05	0.19	0.13	0.18
Hostile	0.05	0.02	0.07	0.11	0.01
Tender Offer	0.49	0.12	0.19	0.27	0.39
Financial Buyer	0.04	0.02	0.04	0.02	0.01
52WH	31.13	39.13	46.21	40.81	48.01
Panel B: Acquirer Sa	nple				
ACAR(%)	2.83	3.55	1.93	2.27	2.26
Cash	0.23	0.22	0.20	0.28	0.46
Stock	0.10	0.15	0.18	0.06	0.18
Private Target	0.81	0.85	0.67	0.87	0.80
Hostile	0.01	0.01	0.02	0.01	0.00
Tender Offer	0.07	0.03	0.08	0.07	0.05
Dormant	0.01	0.01	0.01	0.01	0.01
Same Industry	0.53	0.40	0.68	0.52	0.42
Toehold	0.07	0.09	0.07	0.04	0.12
Cross Border	0.50	0.20	0.41	0.35	0.15
Relative Size	0.29	0.28	0.29	0.23	0.21
RPR	0.84	0.76	0.83	0.84	0.77

To examine the differing dynamics of international M&A deals more closely, we display the number of deals conducted per acquirer region as well as the associated aggregated deal value in billion US dollars in Figure 1.⁶ These figures highlight the increasing importance of M&A deals outside the US. While the number of US M&A deals reported in the SDC database exceeded that of all other regions combined from the start of our sample period ⁶We report equivalent figures based on the target sample in the Online Appendix, yielding qualitatively

equivalent insights.

Figure 1. Number of M&A Deals and Aggregated Deal Value per Region

This figure shows the yearly number of M&A deals (Panel A) and the associated aggregated yearly deal value in billion USD (Panel B) for each region based on the acquirer's headquarters. The data on the number and value of M&A deals for the period from 1977 to 2020 is from SDC and is aggregated by calendar years.



until 2004, other regions have caught up with the US over time. More specifically, while the number of M&A deals in the US has been almost monotonically decreasing since 1999, the number of M&A deals in the Asia-Pacific region has increased steadily, surpassing the

US in 2007. Europe has also closed the gap with the US such that in 2020, the difference between the number of US M&A deals (248) and the number of European M&A deals (209) was quite small compared to earlier years. Panel B in Figure 1 displays a similar trend based on aggregate deal value (in billion USD), although the US did remain the largest market for corporate control through the end of our sample period due to larger average deal sizes. Nonetheless, the aggregated volume of M&A deals outside of the US has exceeded the US market almost consistently since 2006, except in 2012 and 2013, reaching a total volume of 156.78 billion USD in 2020 compared to the US volume of 121.67 billion USD in that same year. Thus, international deals seem to be growing in global importance.⁷

3. The Target's 52-Week High and Deal Outcomes

3.1. The Effect of the 52-Week High on the Offer Premium

We start our analyses by investigating the effect of the target's 52-week high on the *Offer Premium*. Following BPW, we plot two histograms that show the density of the difference between the *Offer Premium* and the 52*WH* in Figure 2. Panel A and Panel B display the histograms for subsamples of publicly listed targets in US deals and international deals, respectively.

Panel A shows that the density of the US histogram spikes near zero, implying that the most frequent offer price roughly equals the 52-week high. Thus, a central finding of BPW also holds in our extended US sample: Acquirers seem to anchor on the 52-week high as a reference point when they make an offer to the target. Notable differences, however, exist with respect to the international sample as Panel B shows. More specifically, densities are

⁷In addition to the growing M&A market outside of the US, the improving data coverage in SDC, as shown in Bollaert and Delanghe (2015), might also play a role for the observations made with regard to Figure 1.

Figure 2. Offer Price Density

This figure shows the histograms of the difference between the *Offer Premium* and the target's 52-week high price (52WH) for the US sample (Panel A) and the international sample (Panel B). *Offer Premium* is the price offered per share, and 52WH is the target's highest stock price over the 335 days ending 30 days prior to the M&A announcement, both divided by the target's stock price 30 days prior to the M&A announcement and expressed as log differences.



generally lower, documenting a larger dispersion in offer prices, and a comparably larger portion of the sample lies to the left of zero, representing offer prices smaller than the 52week high. This pattern is consistent with the lower average *Offer Premium* internationally. Nonetheless, large swaths of the distribution are clustered immediately around the targets' 52-week highs. Inspecting the histograms per region, which we report in the Online Appendix, reveals that offer prices immediately at or just above the 52-week high are the most common offer in Europe, the Americas, the UK, and Japan, while we observe peaks below (but close to) the 52-week high in the Asia-Pacific region. However, we do not observe an extreme spike in the density as in the US sample but a smoother distribution. Thus, our observations are in line with the notion that the 52-week high is a relevant anchor for the *Offer Premium* globally, while also illustrating differences between regions and a reduced effect outside of the US.

BPW regress Offer Premium on 52WH and find that the Offer Premium increases with larger distances between the target's stock price and its 52-week high. We follow the regression procedure of BPW, replicate their results for the US market within our prolonged sample, and apply it to M&A transactions with international targets. Table 3 reports the respective regression results separately for US (Columns (1) to (3)) and international acquirers (Columns (4) to (6)). We find a positive effect of the target's 52-week high variable on the Offer Premium in the US. Specifically, a 10% increase in 52WH increases the Offer Premium, on average, by 0.77%.⁸ The coefficient is statistically significant but the economic magnitude is relatively modest. BPW attribute this pattern to the nonlinear impact of the 52-week high on the offer premium. They find that for stocks trading further away from their 52-week high, the effect becomes weaker and noisier, possibly because other factors are at play, such as financial distress or bargaining power (Baker et al., 2012). To investigate this non-linearity, we employ the procedure of BPW and conduct a piecewise linear regression that allows us to separately observe the marginal effects for stocks with a 52WH of up to 25%, between 25% and 75%, and larger than 75%:

$$Offer \ Premium_{it} = a + b_1 \ min(52WH_{i,t-30}, 25) + b_2 \ max(0, min(52WH_{i,t-30} - 25, 50)) (1) + b_3 \ max(52WH_{i,t-30} - 75, 0) + \epsilon_{it}.$$

The corresponding results in the second column of Table 3 again resemble the results of BPW in the US sample. The effect of the 52-week high is strongest for stocks trading at a 52WH of less than 25%. This is the most common range for the 52WH, as it comprises

⁸If we follow BPW and refrain from winsorizing *Offer Premium*, we obtain a coefficient of 0.0977, which closely resembles the coefficient obtained by BPW (0.096). We provide the respective results in the Online Appendix.

52.58% of all observations in the US. For these stocks, a 10% increase in 52*WH* leads to a 3.90% increase in the *Offer Premium*. When 52*WH* exceeds 25%, the effect becomes smaller and insignificant. When we include control variables for deal and target characteristics in the third column, the effect of 52*WH* decreases but remains significant.⁹ With respect to the control variables in our US sample, we observe larger premia for *Hostile* deals and *Tender Offers*, while *Financial Buyers* pay less on average. Moreover, targets with higher profitability, higher book-to-market ratio, and lower past returns receive more favorable offers. Additionally, we are able to replicate the effects from BPW in the US in further regression specifications.¹⁰

Internationally, 52*WH* also has a significantly positive effect on the *Offer Premium*. However, the effect size is reduced compared to the US sample with a coefficient of 0.0511. Thus, a 10% increase in 52*WH* only induces a 0.51% rise in the *Offer Premium*.¹¹ This effect is smaller than the reported effect by Smith et al. (2019) in a smaller international sample. We also observe a smaller, albeit statistically significant coefficient in the piecewise regressions for stocks with a 52*WH* of less than 25%. Specifically, the average coefficient of b_1 equals 0.1867, implying that a 10% increase in 52*WH* yields an increase in the *Offer Premium* of 1.87% for targets with a 52*WH* between 0% and 25%. This coefficient is less than half the size of the estimated coefficient from the US sample. Therefore, the effect for stocks trading close to their 52-week high seems to be much smaller internationally. The pattern

⁹In the Online Appendix, we show that the effect of 52WH is also observable and even increases in magnitude out-of-sample when we split the sample into pre- and post-publication period.

¹⁰Using a subset of US public acquirers only and adding bidder controls confirms the robustness of the findings of BPW for US targets, as the magnitude of the relevant coefficients increases; we show this in the Online Appendix. When we add year and target-industry fixed effects to the original regression model of BPW, the described effects persist, only decreasing negligibly in magnitude, as displayed in the Online Appendix.

¹¹As in the US sample, the coefficient increases if we do not winsorize *Offer Premium*. The results are provided in the Online Appendix.

Table 3. Target 52-Week High and Offer Premia

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is *Offer Premium*, which is the log difference between the price offered per share and the target's stock price 30 days before the M&A announcement. The main explanatory variables are 52WH, which is defined as the log difference between the target's highest stock price over the 335 days ending 30 days prior to the M&A announcement and the stock price 30 days prior to the announcement date, and b_1 , b_2 , and b_3 , which represent the piecewise linear decomposition of 52WH as described in Equation 1. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (3) display results for the US sample, while Columns (4) to (6) report the corresponding results for the international sample. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Offer Premium								
		US		International					
	(1)	(2)	(3)	(4)	(5)	(6)			
52WH	0.0768***			0.0511***					
	(5.47)			(3.30)					
b_1	. ,	0.3898***	0.3412***		0.1867***	0.1815**			
		(10.28)	(8.26)		(2.70)	(2.55)			
b_2		0.0386	0.0421		-0.0897**	-0.1153***			
		(1.27)	(1.37)		(-2.27)	(-2.65)			
b_3		0.0174	0.0389		0.1298***	0.0549			
		(0.51)	(1.08)		(3.90)	(1.40)			
Cash			0.0222		. ,	0.3327			
			(0.03)			(0.28)			
Stock			1.1099			4.0008**			
			(1.13)			(1.99)			
Hostile			3.5929***			11.9201***			
			(3.49)			(5.01)			
Tender Offer			8.2175***			19.3892***			
55			(11.64)			(15.44)			
Financial Buyer			-4.2121***			5.2680*			
U			(-2.98)			(1.91)			
Target ROA			0.1486***			0.0580***			
0			(5.15)			(3.29)			
Target B/M			0.0284***			0.0002			
0			(3.71)			(0.26)			
Target Size			-0.6083**			-2.8335***			
0			(-2.25)			(-8.05)			
Target Volatility			-0.0340			-0.8621*			
0 5			(-0.11)			(-1.77)			
Target Past Return			-0.0256***			-0.0649***			
0			(-2.98)			(-6.84)			
Target Inverse Price	2.7686***	2.4513***	2.2452***	1.8093***	1.8550***	1.0175***			
0	(6.69)	(5.93)	(3.63)	(6.02)	(6.16)	(2.90)			
Ν	8,626	8,626	8,466	8,529	8,529	6,766			
Adjusted R^2	0.0324	0.0403	0.0708	0.0094	0.0110	0.0794			

we observed in Columns (2) and (3) for b_2 and b_3 , i.e., positive coefficient of declining size, disappears internationally. Specifically, b_2 is significantly negative (-0.0897) and b_3 significantly positive (0.1298) without controls, while the latter turns insignificant when additional control variables are included in Column (3). These results suggest that anchoring on the target's 52-week high in M&A price negotiations outside of the US is limited to firms trading (relatively) close to their past peak price.¹² However, even for target stocks close to their 52-week high, the effect size is significantly smaller compared to deals with US targets at the 10% significance level (based on a simple Wald test).. For stocks with a 52*WH* between 25% and 50%, we observe significantly smaller values for the *Offer Premium*, which is the opposite effect compared to the US. Moreover, some of the additional control variables affect the *Offer Premium* differently in international transactions. Unlike in the US, we observe that outside the US financial buyers pay more than other bidders, whereas smaller targets receive better payouts.

We now take a closer look at the international sample and provide results for the five international subregions in Table 4. For brevity, we only show the results for the piecewise regression specification without control variables.¹³ The main effect for stocks trading in the lowest range of the 52*WH* is significantly positive in Europe, the Asia-Pacific region, and the UK. In the Americas, the estimated coefficient is close to zero and insignificant, and in Japan, the effect is negative but also insignificant. The small effect sizes in these two

¹²These results are driven by deals occurring from 2008 until 2020, as shown in the sample split in the Online Appendix. However, if we focus on public acquirers in the international sample and add acquirer controls, the effect sizes diminish and become insignificant. This is likely because of the strongly reduced sample size due to the lack of data for international public acquirers. In contrast, our international results are robust to including year and target-industry fixed effects in the regression model. The respective results are displayed in the Online Appendix.

¹³Adding control variables to the regressions in the regional samples reduces the sample size due to lack of data for the public targets. The corresponding results as well as the results from regional regressions with the 52WH (instead of its piecewise decomposition) as the explanatory variable are displayed in the Online Appendix.

Table 4. Target 52-Week High and Offer Premia – International Evidence

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is *Offer Premium*, which is the log difference between the price offered per share and the target's stock price 30 days before the M&A announcement. The main explanatory variables are b_1 , b_2 , and b_3 , which represent the piecewise linear decomposition of 52*WH* as described in Equation 1. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Columns (1) to (5) display results for subsamples of M&A deals in Europe, the Asia-Pacific region, the Americas, the UK, and Japan, respectively. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Offer Premium								
	Europe	Asia-Pacific	Americas	UK	Japan				
	(1)	(2)	(3)	(4)	(5)				
<i>b</i> ₁	0.4155**	0.2768***	0.0343	0.4879***	-0.1602				
	(2.55)	(3.11)	(0.15)	(2.78)	(-0.75)				
b_2	-0.3328**	-0.0579	-0.0098	-0.0341	-0.2521**				
	(-2.42)	(-1.21)	(-0.07)	(-0.26)	(-2.00)				
<i>b</i> ₃	0.0277	0.1300***	0.1414**	0.1141	-0.0152				
	(0.21)	(2.59)	(2.21)	(1.11)	(-0.23)				
Target Inverse Price	1.2299	4.3057***	3.4695**	0.7791	-1.4025*				
0	(1.41)	(9.74)	(2.55)	(0.65)	(-1.77)				
Ν	1,117	5,535	628	573	676				
Adjusted R ²	0.0084	0.0308	0.0397	0.0212	0.0211				

regions decrease the overall effect size in the international sample and, therefore, explain why the overall effect is smaller internationally than in the US. Notably, the coefficient of b_1 in Europe and the UK is of comparable magnitude to that in the US. The negative coefficient of b_2 in the international sample is driven by Europe and Japan, as we also observe significantly negative coefficients in these two regions. In Japan, acquirers generally do not seem to anchor on the 52-week high in the bidding process, since we find only negative but no positive effects of the 52*WH* on the *Offer Premium*.¹⁴ A more plausible explanation for this pattern would be that acquirers offer less for Japanese targets that trade far below their 52-week high and, therefore, have recently experienced negative returns. Overall, we find evidence that acquirers anchor on the 52-week high as a reference point for the offer price in M&A negotiations both in the US and internationally. However, we

¹⁴When we regress the *Offer Premium* on the 52*WH* alone, we find a significantly negative coefficient in Japan. The corresponding results are provided in the Online Appendix.

show that the effect is less pronounced internationally, which can be explained by regional differences. While we find that for stocks trading close to the 52*WH*, the effect of the 52*WH* on the *Offer Premium* is positive in Europe, the Asia-Pacific region, and the UK, we find mixed effects for targets trading further away from their 52-week high. In Japan, the effect is reversed.

3.2. The Effect of the 52-Week High on the Deal Success Probability

BPW not only show that the closeness to the 52-week high has an effect on the offer premium but also that a discontinuous jump in the likelihood of deal acceptance can be observed for offers exceeding a target's 52-week high. Hence, reference point dependence affects both the price negotiations and the reception of the offer by target shareholders. We provide descriptive statistics for the probability of a successful deal and the *Offer Premium* in Table 5. When we restrict our sample to deals that are either completed or withdrawn, 81.46% of all offers in the US are successful if the offer price exceeds the 52-week high. The acceptance rate drops to 75.27% when the offer price does not exceed the 52-week high. Internationally, the difference is even larger. While the acceptance rate is 80.36% for offers above the 52-week high, only 69.88% of deals are successful if the bidder's offer does not exceed this threshold. Notably, it is less common that offers exceed the 52-week high in international deals than in US deals. Whereas in 60.10% of US deals the offer price exceeds the 52-week high, this is only the case for 40.31% of the international deals. This finding is in line with the observation that offer premia are on average smaller internationally. When the Offer Premium is larger than the 52WH, the mean Offer Premium and the probability of a successful deal is similar internationally compared to the US. However, the mean *Offer Premium* for deals with offers below the 52-week high is much smaller internationally than in the US (-3.27% vs. 19.89%), which likely drives the lower acceptance rate in this

subsample. Overall, we find initial evidence that the takeover probability also increases

internationally when the Offer Premium exceeds the 52WH.

Table 5. Deal Success and Offer Premia

This table presents descriptive statistics for the probability of deal success (Pr(Success)) and *Offer Premium* for the sample period from 1977 to 2020. Row "All" provides the mean probability of a successful deal, the mean *Offer Premium*, and the sample size for the US and the international sample. Row "*Offer Premium* > 52*WH*" and "*Offer Premium* < 52*WH*" report the respective values for deals where the *Offer Premium* is larger or smaller than the 52*WH*. Row "Diff." reports the respective difference between the means of the two subsamples, and row "*t*(Diff.)" reports *t*-statistics from *t*-tests in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	US			International			
	Pr(Success)	Offer Premium	Ν	Pr(Success)	Offer Premium	N	
All	78.99	30.28	8,211	74.10	13.75	4,850	
<i>Offer Premium > 52WH</i>	81.46	37.17	4,935	80.36	38.95	1,955	
Öffer Premium < 52WH	75.27	19.89	3,276	69.88	-3.27	2,895	
Diff.	6.18***	17.28***		10.48***	42.22***		
t(Diff.)	(6.75)	(27.35)		(8.23)	(35.52)		

For a more formal test, we follow BPW and conduct probit regressions of the probability of a successful deal on the *Offer Premium* and a dummy variable that is equal to 1 if the *Offer Premium* exceeds 52*WH* and 0 otherwise. The resulting average marginal effects are provided in Table 6 with two columns each for the US and the international subsample showing the results without controls and when controlling for deal and target characteristics.

In the US sample, we find a positive effect of the dummy variable of interest (*Offer Pre-mium* > 52WH) on the probability of a deal being accepted. More specifically, the probability of an offer being accepted increases by 4.84% when the *Offer Premium* exceeds the 52WH. When we include additional deal and target control variables, the marginal effect increases to 5.80% and remains highly significant. The effect size is of similar magnitude as in BPW (4.41% and 6.40%, respectively).¹⁵

¹⁵In an out-of-sample test, we show that the magnitude of the observed effect increased in the US after the publication of the study by Baker et al. (2012). In addition, we confirm the robustness of the results for the US sample, first by using a subsample of public acquirers only while adding more bidder controls and second

Table 6. Target 52-Week High and Deal Success

This table presents average marginal effects based on probit regressions for the sample period from 1977 to 2020. The dependent variable is *Deal Success*, a dummy variable equal to 1 if a bid is accepted and 0 otherwise. Following Baker et al. (2012), we limit our sample to deals that SDC classifies as completed or withdrawn. The main explanatory variable is *Offer Premium* > 52*WH*, which is a dummy variable equal to 1 if *Offer Premium* exceeds the stock's 52-week high and 0 otherwise. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) and (2) display results for the US sample, while Columns (3) and (4) report the corresponding results for the international sample. *t*-statistics are reported in parentheses and small font size. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Deal Success						
	τ	JS	Intern	ational			
	(1)	(2)	(3)	(4)			
Offer Premium	0.0001	0.0002	0.0002	-0.0004**			
	(0.42)	(1.07)	(1.04)	(-2.12)			
Offer Premium > 52WH	0.0484***	0.0580***	0.0980***	0.0927***			
	(4.64)	(5.69)	(6.93)	(6.01)			
Cash		0.0313***		0.0657***			
		(3.49)		(4.59)			
Stock		0.0635***		0.1394***			
		(6.35)		(9.13)			
Hostile		-0.6210***		-0.4587***			
		(-39.11)		(-16.09)			
Tender Offer		0.1525***		0.2097***			
		(20.34)		(16.51)			
Financial Buyer		-0.0243		-0.0446			
C C		(-1.21)		(-1.08)			
Target ROA		-0.0003		0.0007***			
C .		(-1.33)		(3.96)			
Target B/M		-0.0002***		-0.0000			
0		(-4.20)		(-0.89)			
Target Size		0.0165***		-0.0466***			
C .		(5.13)		(-11.60)			
Target Volatility		-0.0021		-0.0092**			
0 0		(-0.76)		(-2.37)			
Target Past Return		0.0000		-0.0001			
0		(0.29)		(-0.67)			
Target Inverse Price	-0.0179***	0.0073	-0.0005	-0.0124***			
5	(-4.13)	(1.08)	(-0.17)	(-3.36)			
Ν	8,211	8,064	4,850	3,920			
Pseudo R ²	0.0074	0.1809	0.0125	0.1712			

Internationally, we observe a highly significant and economically large effect of the *Offer Premium* > 52WH dummy variable. Specifically, the probability of a successful

by adding year and target-industry fixed effects. The corresponding results are presented in the Online Appendix.

deal increases by 9.80% when the bidder offers a price above an international target's 52-week high. The effect is robust to the inclusion of control variables, as indicated by an average marginal effect size of 9.27%. Thus, our results indicate that shareholders of international targets seem to exhibit even stronger reference point dependence than their US counterparts.¹⁶

To delve deeper into the increased international effect size, we report average marginal effects based on the international subregions in Table 7. For brevity, we only show the results without adding control variables to the regression model.¹⁷ While we observe large average effects of *Offer Premium* > 52*WH* ranging from 4.46% in Europe to 13.14% in the Asia-Pacific region, the dummy variable has a marginally significant coefficient in Europe (t = 1.69) and an insignificant effect in the Americas (t = 1.54). The anchoring effect is, however, significant and economically large in the Asia-Pacific region, in the UK, and in Japan, where offer prices larger than the target's 52-week high lead to large jumps in *Deal Success* between 9.51% and 13.14%. Interestingly, the effect is particularly pronounced in the two regions with the lowest average offer premia, i.e., Japan and the Asia-Pacific region. Thus, while offers in excess of the 52-week high are less common in these regions, they are particularly positively received by target shareholders. In general, these results suggest that anchoring on past peak prices among target shareholders is highly prevalent internationally.

¹⁶In our international sample, the results are driven by the post-publication period from 2008 to 2020. As was the case with the results for the target's 52-week high's influence on the offer premium, the international results are not significant when we limit our sample to public acquirers, likely due to the reduced data availability. However, adding year and target-industry fixed effects to the regression does not alter our results for the international sample. The respective results are displayed in the Online Appendix.

¹⁷Adding control variables to the regressions in the regional samples reduces the sample size due to lack of data for the public targets. We show the corresponding results in the Online Appendix.

Overall, we find convincing evidence that in the US and internationally, offers are more likely to be accepted when the offered price per share exceeds the target's 52-week high. If acquirers are aware of this phenomenon they might purposely offer prices close to or above the target's 52-week high to convince the target's shareholders to accept the offer, using the anchoring bias in their advantage as described by Kahneman (1992).¹⁸ Conversely, target management might leverage the salient reference price in negotiations to extract a higher payoff for their shareholders, who similarly display reference point dependence in their deal acceptance. In sum, our results in this section underpin the hypothesis that the target's 52-week high serves as a relevant reference point in international M&A deals, however, more for the target shareholders than for the acquirers.

Table 7. Target 52-Week High and Deal Success – International Evidence

This table presents average marginal effects based on probit regressions for the sample period from 1977 to 2020. The dependent variable is *Deal Success*, a dummy variable equal to 1 if a bid is accepted and 0 otherwise. Following Baker et al. (2012), we limit our sample to deals that SDC classifies as completed or withdrawn. The main explanatory variable is *Offer Premium* > 52*WH*, which is a dummy variable equal to 1 if *Offer Premium* exceeds the stock's 52-week high and 0 otherwise. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (5) display results for subsamples of M&A deals in Europe, the Asia-Pacific region, the Americas, the UK, and Japan, respectively. *t*-statistics are reported in parentheses and small font size. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Deal Success							
	Europe	Asia-Pacific	Americas	UK	Japan			
	(1)	(2)	(3)	(4)	(5)			
Offer Premium	-0.0000	-0.0002	-0.0010**	-0.0003	0.0001			
	(-0.05)	(-0.98)	(-2.19)	(-0.57)	(0.34)			
Offer Premium > 52WH	0.0446*	0.1314***	0.0591	0.1106***	0.0951***			
	(1.69)	(5.82)	(1.54)	(2.84)	(3.15)			
Target Inverse Price	0.0059	0.0489***	0.0226**	0.0593***	-0.0136**			
-	(0.93)	(8.84)	(2.04)	(5.04)	(-2.07)			
Ν	925	2,346	505	501	573			
Pseudo R ²	0.0048	0.0355	0.0145	0.0548	0.0448			

 $^{^{18}}$ It is, therefore, not surprising that the effect of the 52*WH* on the *Offer Premium* increased in magnitude after the publication of the BPW paper, as this could reflect strategic motives of the acquirers who then knew that their offers would be more likely to be accepted when they exceed the target's 52-week high.

4. The Acquirer's 52-Week High and Market Reactions

In this section, we examine how acquirer reference prices affect M&A outcomes, and we extend MWZ's analyses with our acquirer sample to stock markets worldwide. We follow MWZ and investigate whether the average acquirer CARs differ between acquirers whose *RPR* is below or above the median *RPR*. In the US, the average CAR is 2.32% for acquirers with a low *RPR* and 1.28% for acquirers with a high *RPR*. The difference is statistically significant at the 1% level. Internationally, high and low *RPR* acquirers have statistically significantly different average CARs of 2.54% and 3.27%, respectively. Hence, the difference in CARs between high and low *RPR* acquirers appears to be smaller internationally than in the US.

To analyze the relation between *RPR* and *ACAR* in more detail, we plot the cumulative abnormal returns of acquirers with low and high *RPR* in Figure 3. We depict a symmetric event window from 10 days before to 10 days after the deal announcement. Panel A shows the results for the US subsample and reveals that over a longer event window, high-*RPR* acquirers have higher CARs than low-*RPR* acquirers. This is in line with George and Hwang (2004), who show that stocks trading closer to their 52-week high generally have higher subsequent returns. The higher CARs of low-*RPR* acquirers observed by MWZ depend largely on the chosen event window of [-5;+1], as the bidder CARs of the low-*RPR* stocks increase strongly over this event window with a steeper slope than the high-*RPR* acquirers. For other (symmetric) event windows we would observe a smaller effect size. Internationally, we observe a similar pattern as in the US of high-*RPR* acquirers having higher CARs than low-*RPR* acquirers over the event window of [-10;+10] as displayed in Panel B of Figure 3. In the event window studied by MWZ, however, the CARs of the

Figure 3. Acquirer Cumulative Abnormal Returns

This figure shows the average cumulative abnormal return of acquirers over a symmetric time period of 21 days around the bid announcement. The end of day t = -11 is the starting date. The red and blue lines depict the returns for acquirers with a low *RPR* and with a high *RPR*, respectively. The threshold for a low and a high *RPR* is the median of *RPR*. Panel A and Panel B show the graphs for the US and the international sample, respectively.



low-*RPR* acquirers would lie above the CARs of high-*RPR* bidders, as they increase by a larger amount over the [-5;+1] period.

Table 8 reports the results of three ordinary least squares (OLS) regressions each in the US and internationally of the acquirers' announcement returns on acquirers' reference price ratios. Following MWZ, we control for year and acquirer-industry fixed effects across all specifications, using the Fama and French (1997) 49-industry classification. Both in the US and internationally, we initially show the effect of *RPR* on *ACAR* without any deal- and acquirer-specific control variables (Columns (1) and (4)), before adding the same controls employed by MWZ in a second step (Columns (2) and (5)). Lastly, we report regression results based on the smaller subsample of acquisitions of public targets only in Columns (3) and (6).

In the US, we find a statistically significant and economically large effect of acquirer reference prices on *ACAR* irrespective of the chosen model specification. The results documented in Column (2) broadly resemble MWZ's regression results despite the differing sample periods. More specifically, we find a reduced coefficient of *RPR* compared to MWZ (-3.67 vs. -5.49) with a smaller *t*-value (-6.50 vs. -8.56), which nonetheless still indicates a highly significant effect. Based on Column (2), a one standard deviation (0.18) increase in *RPR* decreases *ACAR* by 0.66 (= $0.18 \times (-3.67)$) percentage points, which equals 7.08% (= 0.66 / 9.32) of the dependent variable's standard deviation. Thus, our results confirm the key finding documented by MWZ.¹⁹ On average, bidders with stocks trading far from (close to) their 52-week high experience better (worse) market reactions to their M&A announcements.

¹⁹The robustness of the findings in the US to alternative specifications is mixed. Notably, we find that the effect of *RPR* on *ACAR* increases after the end of MWZ's sample period (although the coefficient within the subsample of public targets turns insignificant). Moreover, adding target-specific control variables yields a statistically significant effect of acquirer reference prices. Lastly, using a symmetric event window of [-1;+1] to calculate CARs alters the results: While the coefficients and *t*-statistics in Column (1) and (2) decrease slightly in magnitude, the coefficient in Column (3), which focuses on public targets only, turns positive and becomes insignificant. The respective results are documented in the Online Appendix.

Table 8. Acquirer 52-Week High and Market Reactions

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is ACAR, the acquirer's cumulative abnormal return around an M&A announcement. The abnormal returns are market-adjusted and cumulated over an asymmetric seven-day event window [-5;+1] around the M&A announcement. The main explanatory variable, the acquirer's reference price ratio (*RPR*), is the ratio of the stock price six days before the M&A announcement relative to the stock's highest price over the 252 preceding trading days. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (3) display results for the US sample, while Columns (4) to (6) report the corresponding results for the international sample. Columns (3) and (6) report results for deals with public targets only. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: ACAR							
		US			International			
	(1)	(2)	(3)	(4)	(5)	(6)		
RPR	-4.0839***	-3.6678***	-2.1732*	-2.6865***	-2.1620***	-1.0164		
	(-8.40)	(-6.50)	(-1.81)	(-5.20)	(-3.01)	(-0.61)		
Cash		0.1794	1.1807***		-0.2037	0.3634		
		(1.24)	(4.00)		(-1.06)	(0.72)		
Stock		-1.6199***	-0.6580**		0.2651	1.5932***		
		(-6.26)	(-2.32)		(0.59)	(2.85)		
Private Target		2.0807***			1.0893***			
U U		(11.59)			(3.85)			
Stock imes Private Target		1.9854***			1.3877**			
0		(5.38)			(2.42)			
Hostile		-1.0319***	-0.5820		-2.2269***	-1.7452**		
		(-2.83)	(-1.49)		(-3.31)	(-2.35)		
Tender Offer		0.8257***	0.6696**		0.2428	0.5209		
		(2.71)	(2.00)		(0.58)	(1.15)		
Dormant		0.1876	1.1276		-0.2615	-3.0343		
		(0.42)	(1.24)		(-0.35)	(-1.53)		
Same Industry		0.1853	0.2977		0.0605	0.2539		
U U		(1.32)	(1.06)		(0.35)	(0.57)		
Toehold		0.5199	-0.8844*		-0.3967	-0.2871		
		(1.34)	(-1.80)		(-1.27)	(-0.56)		
Cross Border		-0.1816	0.8926*		0.2730	0.5317		
		(-0.90)	(1.93)		(1.46)	(1.09)		
Relative Size		1.7847***	-0.9146**		3.0029***	0.4093		
		(7.28)	(-2.55)		(8.69)	(0.62)		
Bidder Ln(M/B)		0.2627**	-0.0157		0.5157***	-0.0583		
		(2.17)	(-0.06)		(4.03)	(-0.19)		
Bidder Size		-0.4056***	-0.5707***		-0.5098***	-0.7297***		
		(-8.61)	(-6.72)		(-8.37)	(-5.19)		
Bidder Leverage		-0.0240	0.9957		-0.1218	1.2318		
		(-0.06)	(1.14)		(-0.27)	(1.11)		
Bidder Past Return		0.7456***	0.8207***		0.6443***	-0.1690		
		(5.39)	(2.62)		(2.65)	(-0.45)		
Year FE	Yes	Yes	Yes	Yes	Yes	Yes		
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes		
Ν	22,174	21,340	5,538	20,146	14,639	2,179		
Adjusted R ²	0.0209	0.0524	0.0411	0.0149	0.0454	0.0397		

Moreover, the coefficients of the included control variables closely resemble MWZ's regression results and are broadly in line with the prior literature (Chang, 1998; Moeller et al., 2004, 2005; Faccio et al., 2006; Harford et al., 2012; Golubov et al., 2015). Specifically, *Stock* deals are received significantly worse, which is attenuated for stock-financed takeovers of private targets (Fuller et al., 2002; Slovin et al., 2005; Ma et al., 2019). In general, Private Targets lead to significantly higher ACAR. Moreover, Hostile deals tend to be relatively poorly received, whereas *Tender Offers* lead to significantly better market receptions. *Toehold* and *Cross Border* display insignificant coefficients in Column (2) and turn (marginally significantly) negative and positive, respectively, for publicly listed targets. *Relative Size* is significantly positive in Column (2), in which the sample is dominated by private targets, and is significantly negative in Column (3), in which only public targets are studied. This is consistent with the notion that bidder and target size primarily affect ACAR as scaling variables, as proposed by Schneider and Spalt (2022), given that we observe positive average acquirer CARs for private targets (2.44%) and negative average acquirer CARs for public targets (-0.44%) in the US. Lastly, we observe that smaller bidders and bidders with stronger past stock performance experience higher CARs, while *Bidder Leverage* is insignificant in both Columns (2) and (3).

Columns (4) to (6) report the corresponding regression results from the international M&A sample. Most importantly, the coefficient of *RPR* is significantly negative in the full acquirer sample, with coefficients of -2.69 without controls and -2.16 with controls and with *t*-values of -5.20 and -3.01, respectively. Examining public targets only, Column (6) yields a reduced and statistically insignificant effect of *RPR*. Thus, the effect of the acquirer's reference price is reduced in terms of coefficient size and statistical significance in deals with international acquirers, but it is still present and economically relevant within the

full acquirer sample. Focusing on Column (5), a one standard deviation increase in *RPR* within the international sample (0.19) leads to a decrease in *ACAR* by 0.41 (= $0.19 \times (-2.16)$) percentage points, which represents 3.98% (= 0.41 / 10.31) of *ACAR*'s standard deviation outside of the US. Hence, the economic magnitude of the reference price effect of acquirer's 52-week high is nearly halved outside the US. Nonetheless, these regression results provide further out-of-sample evidence for the economically large and directionally consistent effect of *RPR* on *ACAR*.²⁰

The coefficients of the control variables yield additional insights about the differing determinants of *ACAR* in our international sample. Perhaps most notably, *Stock* yields no significant standalone coefficient when considering all international targets and even a highly significant and economically large positive coefficient when considering solely public targets. Thus, stock-financed takeovers, which are significantly less common in our international sample, are not associated with negative announcement returns outside of the US. The acquisition of private targets leads to higher *ACAR* in our international sample (particularly when paid in *Stock*), whereas *Hostile* deals are poorly received (at more than twice the coefficient size compared to the US sample). Furthermore, the coefficient for *Relative Size* is significantly positive in Column (5) and insignificant but still positive in Column (6). Similar to the US results, *Bidder Size* is negatively and *Bidder Past Return* positively related to *ACAR*.

To delve deeper into the international effects of acquirer reference prices, we report results from regressions of *ACAR* on *RPR* based on the five geographic subsamples in

²⁰Further, the results of the international sample are robust to splitting the sample into pre- and postpublication period. However, focusing on public targets only when adding target controls turns the coefficients insignificant, which might partly be caused by the strongly reduced sample size. Using a symmetric event window of [-1;+1] to estimate bidder CARs reduces the magnitude of the estimates and *t*-statistics across all three columns, yielding insignificant coefficients of *RPR* in Columns (5) and (6). The respective results are shown in the Online Appendix.

Table 9. Acquirer 52-Week High and Market Reactions – International Evidence

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is *ACAR*, the acquirer's cumulative abnormal return around an M&A announcement. The abnormal returns are market-adjusted and cumulated over an asymmetric seven-day event window [-5;+1] around the M&A announcement. The main explanatory variable, the acquirer's reference price ratio (*RPR*), is the ratio of the stock price six days before the M&A announcement relative to the stock's highest price over the 252 preceding trading days. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (5) display results for subsamples of M&A deals in Europe, the Asia-Pacific region, the Americas, the UK, and Japan, respectively. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

		Deper	ndent Variable: A	CAR	
	Europe	Asia-Pacific	Americas	UK	Japan
	(1)	(2)	(3)	(4)	(5)
RPR	-1.3729	-2.0365**	-4.9498	-1.7750	-2.8015
	(-0.98)	(-2.02)	(-1.00)	(-0.99)	(-1.42)
Cash	0.5998*	-0.5616*	0.3477	0.2517	-0.1652
	(1.78)	(-1.70)	(0.33)	(0.64)	(-0.24)
Stock	-0.3831	0.9644	1.4690	-0.1823	-1.4217
	(-0.45)	(1.34)	(0.78)	(-0.14)	(-1.05)
Private Target	1.3985***	0.8177**	1.3161	2.7594***	-0.5292
U	(2.78)	(1.96)	(0.90)	(3.69)	(-0.52)
Stock $ imes$ Private Target	1.6246	0.6133	5.1518	-2.4608	4.3622**
-	(1.39)	(0.73)	(1.51)	(-1.14)	(2.55)
Hostile	-3.3485***	-1.6968	-1.9489	-4.1753***	1.0757
	(-3.24)	(-1.42)	(-0.59)	(-2.63)	(0.48)
Tender Offer	-0.2171	0.6422	-1.6258	1.2969	-1.1894
55	(-0.34)	(0.77)	(-0.78)	(1.35)	(-0.99)
Dormant	-0.8903	-0.4801	-4.3282	2.3310	1.0853
	(-0.81)	(-0.44)	(-1.22)	(1.08)	(0.47)
Same Industry	-0.3036	0.1096	2.1434*	0.1484	0.1735
C C	(-0.92)	(0.40)	(1.86)	(0.40)	(0.32)
Toehold	-0.8586	-0.4832	-3.8691*	-0.5395	0.2844
	(-1.38)	(-1.10)	(-1.78)	(-0.53)	(0.32)
Cross Border	0.8061**	0.4375	-0.5241	0.1047	-1.8047**
	(2.54)	(1.29)	(-0.58)	(0.24)	(-2.53)
Relative Size	3.4635***	2.9477***	0.9833	2.1245**	4.7653***
	(5.95)	(5.93)	(0.48)	(2.14)	(3.65)
Bidder Ln(M/B)	0.7507***	0.5365***	0.3126	0.2228	0.2424
	(2.85)	(2.80)	(0.44)	(0.75)	(0.48)
Bidder Size	-0.5202***	-0.6663***	-0.3610	-0.2370*	-0.6633***
	(-4.93)	(-6.01)	(-1.10)	(-1.74)	(-3.23)
Bidder Leverage	0.4680	-0.6130	2.7040	0.4704	1.0471
	(0.48)	(-0.90)	(0.99)	(0.41)	(0.74)
Bidder Past Return	0.5423	0.6911**	0.5914	0.4875	-0.3448
	(1.49)	(2.48)	(0.48)	(1.05)	(-0.46)
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
N	2,872	7,140	507	2,566	1,554
Adjusted R^2	0.0751	0.0507	0.1004	0.0307	0.0692

Table 9. Across all columns, we include the full set of deal and acquirer characteristics controlled for in Columns (2) and (5) of Table 8. Across all five regions considered, the effect of *RPR* on *ACAR* is negative, with the regression coefficient ranging from -1.37 in the European subsample to -4.95 in the Americas subsample. While the coefficient of *RPR* is directionally consistent with MWZ's original findings in all regions, the effect is statistically insignificant in four out of the five international subsamples. The Asia-Pacific region, which is the largest international subgroup in terms of observations, with 7,140 deals initiated by public acquirers, yields the only *RPR* coefficient that is statistically different from zero at any conventional significance level with a *t*-value of -2.02. While the large yet insignificant coefficient in the Americas might be ascribed to the smaller number of observations (N = 507), the lower and insignificant coefficients in Europe and the UK also reflect the coefficients' comparably small magnitude.²¹ We conclude that while the acquirer reference point originally documented by MWZ is globally relevant and seems to affect market perceptions of M&A deals in our pooled international sample, there are strong regional discrepancies and at best mixed evidence on the regional level.

5. Conclusion

In this paper, we reexamine the role of the 52-week high in M&A transactions. More specifically, we replicate the key findings of BPW and MWZ by extending the respective samples from the US to an international sample of 34 countries. Given the substantial differences between US and international M&A deals and the growing global share of international acquirers and targets in the market for corporate control, it is crucial for our

²¹We obtain broadly similar insights if a symmetric event window of [-1;+1] is used to compute *ACAR*. While the effect of *RPR* in the Asia-Pacific region turns insignificant (*t*-value of -0.30), the coefficient in the Americas becomes marginally significant at the 10% level. The results are shown in the Online Appendix.
understanding of mergers and acquisitions to test whether the findings of BPW and MWZ translate to markets outside of the US.

Initially, we examine the role of the target's 52-week high in M&A negotiations. Our results show that offer premia increase (decrease) for targets trading far from (close to) their 52-week high, indicating that past stock price peaks serve as an anchor in the M&A price formation. The effect size and the significance of this finding increase in the period after BPW's original description of the mechanism. Furthermore, the effect of the 52-week high on offer prices also exists outside of the US, albeit at smaller effect sizes and with substantial regional differences. For example, Japanese targets fail to extract higher premia when trading far from their past stock price peaks. Moreover, we find that the likelihood to accept an offer jumps by 10.48 percentage points to 80.36% in international markets when the offer exceeds the target's 52-week high. This effect is even more pronounced than in the US sample. Overall, our international evidence largely confirms the findings of BPW.

We also investigate the effect of acquirer reference prices on acquirers' cumulative abnormal returns to M&A announcements. Our results confirm that the reference price mechanism initially documented by MWZ is robust and statistically significant. In fact, we find that the effect size of the acquirer's reference price ratio increased in the post-publication period. However, we find that the effect is much smaller internationally and depends on the observed event window. More specifically, we only find a significant coefficient in one out of five international subregions. When we estimate the coefficients over a symmetric event window, we find smaller effects in the US and insignificant ones internationally. While the economic magnitude is slightly muted internationally compared to in the US, it is still economically large. A one standard deviation increase in *RPR* leads to a decrease in *ACAR* of 0.41 percentage points internationally (compared to 0.66 in the

US). Thus, we conclude that the effect of acquirer reference prices seems to be relevant in international markets but less than in the US.

Overall, we conclude that there is convincing evidence that both the target's and the bidder's 52-week high affect M&A outcomes in global markets for corporate control.

Appendix: Variable Definitions

Table A1. Variable Definitions

In this table, we define all variables used in the paper. In brackets, we report the item codes from Compustat, CRSP, Datastream, and SDC where applicable. If a single bracket is divided in two by a vertical line, the first item code represents the data source for the US sample and the second item code represents the data source for the international sample.

Variable	Variable Definition					
Deal Characteristics						
Offer Premium	The log difference between the unadjusted price offered per share (SDC: Share					
	Price Paid by Acquiror for Target Shares) and the target's unadjusted stock price					
	(CRSP: PRC Datastream: UP) 30 days before the M&A announcement.					
Deal Success	Dummy equal to 1 if the deal status is recorded as completed and 0 otherwise. In					
	line with Baker et al. (2012) we restrict all analyses on <i>Deal Success</i> to deals that are					
	classified either as completed or withdrawn (SDC: Deal Status).					
ACAR	The acquirer's cumulative abnormal return in an asymmetric seven-day event					
	window [-5;+1] around the M&A announcement date. The abnormal returns are					
	market-adjusted.					
Cash	Dummy equal to 1 if the deal is fully paid in cash and 0 otherwise (SDC: Percentage					
	of Cash).					
Stock	Dummy equal to 1 if the deal is fully paid in stock and 0 otherwise (SDC: Percent-					
	age of Stock).					
Hostile	Dummy equal to 1 if the deal is classified accordingly and 0 otherwise (SDC: Deal					
	Attitude).					
Tender Offer	Dummy equal to 1 if the deal is classified accordingly and 0 otherwise (SDC:					
	Tender Offer Flag).					

Variable	Variable Definition
Financial Buyer	P Dummy equal to 1 if the deal is flagged as involving a financial sponsor and 0
	otherwise (SDC: Acquiror is a Financial Sponsor Flag).
Private Target	Dummy equal to 1 if the target's public status is listed as private or subsidiary and
	0 otherwise (SDC: Target Public Status).
Toehold	Dummy equal to 1 if the acquirer holds more than 5% of the target's outstanding
	shares before the announcement (or if not available six months prior to the an-
	nouncement) and 0 otherwise (SDC: Percentage of Shares Held at Announcement
	(Percentage of Shares Held by Acquiror 6 Months Prior to Announcement)).
Cross Border	Dummy equal to 1 if the target is headquartered in a different country than the
	acquirer and 0 otherwise (SDC: Cross Border Deal Flag).
Relative Size	The ratio of the deal value excluding liabilities (SDC: Deal Value excl. Liabilities
	Assumed) to the market capitalization of the acquirer at the end of the prior
	calendar year, computed as shares outstanding (Compustat: CSHO Datastream:
	WC05301) times closing price at the end of the calendar year (Compustat: PRCC_C
	Datastream: P).
Dormant	Dummy equal to 1 if there has been no deal by an acquirer in the same four-digit
	SIC industry within the past 365 days and 0 otherwise.
Same Industry	Dummy equal to 1 if acquirer and target operate in the same two-digit SIC industry
	and 0 otherwise.

Variable	Variable Definition					
Target Character	ristics					
52WH	The log difference between the target's highest stock price over the 335 calendar					
	days ending 30 days prior to the M&A announcement and the stock price 30					
	days prior to the M&A announcement. Stock prices are adjusted for splits and					
	denominated in local currencies.					
Target ROA	The ratio of the target's net income (Compustat: NI Datastream: WC01751) to					
	total assets (Compustat: AT Datastream: WC02999)					
Target B/M	The sum of the target's shareholders' equity (Compustat: SEQ Datastream					
	WC03501) and deferred taxes and investment tax credit (Compustat: TXDITC					
	Datastream: WC04101), less preferred stock redemption (or if not available					
	liquidation) value (Compustat: PSTKRV (PSTKL) Datastream: WC03451)					
	expressed relative to the market equity at the prior year's fiscal end, computed					
	as shares outstanding (Compustat: CSHO Datastream: WC05301) times					
	closing price at the end of the fiscal year (Compustat: PRCC_F Datastream: P).					
Target Size	The natural logarithm of the target's market equity in thousands at the fiscal					
	year-end prior to the M&A announcement, computed as shares outstanding					
	(Compustat: CSHO Datastream: WC05301) times closing price at the end of					
	the fiscal year (Compustat: PRCC_F Datastream: P).					
Target Volatility	The target stock's standard deviation of daily returns over the 335 calendar days					
	ending 30 days prior to the M&A announcement.					
Target Past Retur	n The target's raw stock return measured over the 335 calendar days ending 30					
	days prior to the M&A announcement.					

Variable	Variable Definition
Acquirer Charac	cteristics
RPR	The ratio of the acquirer's stock price six days prior to the M&A announcement
	to the stock's highest price over the 252 preceding trading days.
Bidder Ln(M/B)	The logarithmic ratio of the acquirer's market equity at the prior fiscal
	year's end, computed as shares outstanding (Compustat: CSHO Datas-
	tream: WC05301) times closing price at the end of the fiscal year (Compustat:
	PRCC_F Datastream: P) to shareholders' equity (Compustat: SEQ Datas-
	tream: WC03501).
Bidder Size	The natural logarithm of the acquirer's market equity in millions measured
	at the prior calendar year-end, computed as shares outstanding (Compustat:
	CSHO Datastream: WC05301) times closing price at the end of the calendar
	year (Compustat: PRCC_C Datastream: P).
Bidder Leverage	The difference between the acquirer's total assets (Compustat: AT Datastream:
	WC02999) and shareholders' equity (Compustat: SEQ Datastream: WC03501),
	relative to total assets (Compustat: AT Datastream: WC02999).
Bidder Past Retur	n The acquirer's raw stock return measured over the 252 trading days ending six
	days prior to the M&A announcement.

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Online Appendix for

"The 52-Week High and M&A Deals: International Evidence"

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1. Additional Figures

Figure 1. Number of M&A Deals and Aggregated Deal Value per Region – Target Perspective This figure shows the yearly number of M&A deals (Panel A) and the associated aggregated yearly deal value in billion USD (Panel B) for each region based on the target's headquarters. The data on the number and value of M&A deals for the period from 1977 to 2020 is from SDC and aggregated by calendar years.



Panel A: Number of M&A Deals

Figure 2. Offer Price Density – International Regions

This figure shows the histograms of the difference between the offer premium (*Offer Premium*) and the target's 52-week high price (52*WH*) for the European sample (Panel A), the Asia-Pacific sample (Panel B), the Americas sample (Panel C), the UK sample (Panel D), and the Japan sample (Panel E). *Offer Premium* is the price offered per share and 52*WH* is the target's highest stock price over the 335 days ending 30 days prior to the M&A announcement, both divided by the target's stock price 30 days prior to the M&A announcement and expressed as log differences.



2. Additional Summary Statistics

Table A1. Summary Statistics – Target Sample

This table reports descriptive statistics for the main variables used in our analyses based on publicly listed M&A targets in the US (Panel A) and internationally (Panel B). These statistics include sample mean, median, standard deviation, 25%-quantile, 75%-quantile, and the number of observations. All variables are described in Table A1 in the Appendix of the paper.

	Mean	Median	St. Dev.	p25	<i>p</i> 75	Ν
Panel A: US Data						
Deal Characteristics						
Offer Premium (%)	29.55	28.25	30.23	15.17	43.83	8,626
Deal Success	0.79	1.00	0.41	1.00	1.00	8,211
Cash	0.43	0.00	0.49	0.00	1.00	8,626
Stock	0.21	0.00	0.40	0.00	0.00	8,626
Hostile	0.08	0.00	0.28	0.00	0.00	8,626
Tender Offer	0.21	0.00	0.41	0.00	0.00	8,626
Financial Buyer	0.05	0.00	0.21	0.00	0.00	8,626
Target Characteristics						
52WH (%)	34.52	20.45	40.84	6.95	46.25	8,626
Target ROA (%)	-2.12	1.76	19.95	-1.55	5.91	8,520
Target B/M (%)	79.30	67.41	69.60	40.03	105.12	8,498
Target Size	11.81	11.69	1.81	10.49	13.04	8,626
Target Volatility (%)	3.52	2.98	2.08	2.09	4.26	8,594
Target Past Return (%)	10.82	5.86	51.16	-20.84	33.88	8,594
Panel B: International Da	ata					
Deal Characteristics						
Offer Premium (%)	7.20	8.34	46.46	-9.44	29.32	8,529
Deal Success	0.74	1.00	0.44	0.00	1.00	4,850
Cash	0.47	0.00	0.50	0.00	1.00	8,529
Stock	0.08	0.00	0.28	0.00	0.00	8,529
Hostile	0.04	0.00	0.19	0.00	0.00	8,529
Tender Offer	0.20	0.00	0.40	0.00	0.00	8,529
Financial Buyer	0.02	0.00	0.15	0.00	0.00	8,529
Target Characteristics						
52WH (%)	39.42	27.38	42.30	9.75	53.90	8,529
Target ROA (%)	-7.78	0.85	45.37	-8.10	4.48	7,992
Target B/M (%)	99.52	62.06	686.59	32.59	110.66	6,777
Target Size	11.53	11.35	1.83	10.30	12.82	8,527
Target Volatility (%)	3.52	3.13	1.98	2.18	4.37	8,512
Target Past Return (%)	16.29	0.41	83.18	-26.49	35.97	8,512

Table A2. Summary Statistics – Acquirer Sample

This table reports descriptive statistics for the main variables used in our analyses based on publicly listed M&A acquirers in the US (Panel A) and internationally (Panel B). These statistics include sample mean, median, standard deviation, 25%-quantile, 75%-quantile, and the number of observations. All variables are described in Table A1 in the Appendix of the paper.

		St. Dev.	p25	p75	N
1.81	0.90	9.32	-3.28	6.00	22,174
0.23	0.00	0.42	0.00	0.00	22,174
0.19	0.00	0.39	0.00	0.00	22,174
0.73	1.00	0.44	0.00	1.00	22,174
0.02	0.00	0.13	0.00	0.00	22,174
0.04	0.00	0.21	0.00	0.00	22,174
0.02	0.00	0.13	0.00	0.00	22,174
0.62	1.00	0.49	0.00	1.00	22,174
0.08	0.00	0.26	0.00	0.00	22,174
0.12	0.00	0.32	0.00	0.00	22,174
0.31	0.17	0.34	0.09	0.37	22,073
0.81	0.86	0.18	0.71	0.95	22,174
					21,569
					22,104
					21,986
0.33	0.17	0.72	-0.08	0.51	21,987
Data					
Dala					
3.00	1 38	10 31	-7.33	6.81	20,146
					20,140
					20,140
					20,140
					20,140
					20,146
					20,140
					20,140
					20,140
					20,140
					17,929
					,
0 79	0.84	0 10	0.69	0.94	20,146
					14,754
					14,754
					14,945
					20,085
	$\begin{array}{c} 0.23\\ 0.19\\ 0.73\\ 0.02\\ 0.04\\ 0.02\\ 0.62\\ 0.08\\ 0.12\\ 0.31\\ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

3. Empirical Evidence on the Targets' 52-Week High

3.1. Targets' 52-Week High and Offer Premia

Table A3. Target 52-Week High and Offer Premia – Pre- and Post-Publication Period

This table presents results for OLS regressions for the sample period from 1977 to 2007 (Panel A) and from 2008 to 2020 (Panel B). The dependent variable is Offer Premium, which is the log difference between the price offered per share and the target's stock price 30 days before the M&A announcement. The main explanatory variables are 52WH, which is defined as log difference between the target's highest stock price over the 335 days ending 30 days prior to the M&A announcement and the stock price 30 days prior to the announcement date, and b_1 , b_2 , and b_3 , which are the piecewise linear decomposition of 52WH as described in Equation 1. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Deal Controls is a vector of deal characteristics: Cash, Stock, Hostile, Tender Offer, and Financial Buyer. Target Controls is a vector of target characteristics: Target ROA, Target B/M, Target Size, Target Volatility, and Target Past Return. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (3) display results for the US sample, while Columns (4) to (6) report the corresponding results for the international sample. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Offer Premium						
		US			International		
	(1)	(2)	(3)	(4)	(5)	(6)	
Panel A: Pre-Public	ation Period	(1977-2007)					
52WH	0.0693*** (4.53)			-0.0003 (-0.01)			
b_1	(1.00)	0.3634***	0.2794***	(0.01)	-0.1427	0.0080	
		(8.30)	(5.89)		(-0.77)	(0.04)	
b_2		0.0677** (1.98)	0.0708** (2.07)		-0.1348 (-1.22)	-0.1547 (-1.13)	
b_3		-0.0211	-0.0010		0.2110**	0.0390	
-	0 0110***	(-0.54)	(-0.02)	1 (000**	(2.14)	(0.33)	
Target Inverse Price	2.7119*** (5.49)	2.3088 ^{***} (4.64)	1.8917** (2.44)	1.6300** (2.25)	1.8004** (2.46)	0.2719 (0.30)	
Deal Controls	No	No	Yes	<u>No</u>	<u> </u>	Yes	
Target Controls	No	No	Yes	No	No	Yes	
Ν	6,872	6,872	6,716	1,821	1,821	1,138	
Adjusted R ²	0.0265	0.0359	0.0811	0.0025	0.0057	0.0757	
Panel B: Post-Publi	cation Period	l (2008-2020)					
52WH	0.1018***	. ,		0.0510***			
b_1	(3.08)	0.4963***	0.5144***	(3.06)	0.2634***	0.1653**	
01		(6.65)	(6.45)		(3.74)	(2.17)	
b_2		-0.0643	0.0148		-0.0953**	-0.1352***	
b_3		(-0.97) 0.1243*	(0.21) 0.1572**		(-2.35) 0.1107***	(-2.99) 0.0374	
-		(1.80)	(2.14)		(3.16)	(0.90)	
Target Inverse Price	3.0338***	3.0112***	2.8250**	2.0622***	2.0962***	1.2548***	
	(3.83)	(3.85)	(2.39)	(6.52)	(6.63)	(3.38)	
Deal Controls	No	No	Yes	No	No	Yes	
Target Controls N	No 1,754	No 1,754	Yes 1,750	No 6,708	No 6,708	Yes 5,628	
Adjusted R^2	0.0573	0.0648	0.0816	0.0131	0.0151	0.0835	

Table A4. Target 52-Week High and Offer Premia – Additional Acquirer Controls

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is *Offer Premium*, which is the log difference between the price offered per share and the target's stock price 30 days before the M&A announcement. The main explanatory variables are 52*WH*, which is defined as the log difference between the target's highest stock price over the 335 days ending 30 days prior to the M&A announcement and the stock price 30 days prior to the announcement date, and b_1 , b_2 , and b_3 , which represent the piecewise linear decomposition of 52*WH* as described in Equation 1. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. The additional bidder controls are defined analogously to the target controls. Columns (1) to (3) display results for the US sample, while Columns (4) to (6) report the corresponding results for the international sample. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Offer Premium						
	US			International			
	(1)	(2)	(3)	(4)	(5)	(6)	
52WH	0.0886*** (5.00)			0.0912** (1.97)			
b_1	(0.00)	0.4107^{***} (8.41)	0.3517*** (6.73)	(1.57)	0.2530 (1.61)	0.2083 (1.41)	
<i>b</i> ₂		0.0020 (0.05)	0.0111 (0.29)		(0.0435) (0.39)	-0.1410 (-1.29)	
b_3		0.0593 (1.37)	0.0665 (1.52)		0.0786 (0.72)	-0.0059 (-0.05)	
Cash		(-2.0407** (-2.18)			-3.2684 (-1.10)	
Stock			-1.9249* (-1.94)			-7.8457*** (-2.84)	
Hostile			6.2031*** (4.46)			3.8812 (1.04)	
Tender Offer			5.5617*** (5.83)			10.5936*** (3.81)	
Financial Buyer			-4.1775 (-1.13)			-11.4281 (-0.70)	
Target ROA			0.1801*** (3.92)			-0.0713 (-0.79)	
Target B/M			0.0375*** (3.27)			0.0077 (0.38)	
Target Size			-6.2626*** (-12.81)			-11.0393*** (-8.29)	
Target Volatility			(12.01) 0.4368 (0.89)			(0.2) 1.1823 (0.91)	
Target Past Return			-0.0385***			-0.0448***	
Bidder ROA	0.2933*** (5.19)	0.2687*** (4.77)	(-3.62) 0.1380** (2.37)	0.0017 (0.01)	-0.0061 (-0.04)	(-8.09) 0.1915 (1.35)	
Bidder B/M	(3.19) 0.0145 (1.13)	0.0197 (1.56)	-0.0109 (-0.80)	-0.0121	-Ò.0118	0.0086 (0.39)	
Bidder Size	1.6579***	1.6929***	6.1428***	(-0.51) 3.4562*** (4.55)	(-0.49) 3.5443*** (4.57)	11.5086***	
Bidder Volatility	(5.30) -0.7482 (1.62)	(5.44) -0.7902* (1.72)	(13.46) -0.1230 (0.23)	(4.55) 0.4831 (0.40)	(4.57) 0.4832 (0.40)	(8.57) 0.8039 (0.62)	
Target Inverse Price	(-1.62) 6.9298*** (9.96)	(-1.72) 6.6604*** (9.59)	(-0.23) 2.8615*** (3.38)	(0.40) 2.2248*** (2.95)	(0.40) 2.2318*** (2.97)	(0.62) 0.3182 (0.45)	
Ν	4,020	4,020	3,956	1,067	1,067	958	
Adjusted R ²	0.0839	0.0922	0.1636	0.0277	0.0268	0.1677	

Table A5. Target 52-Week High and Offer Premia – Additional Fixed Effects

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is *Offer Premium*, which is the log difference between the price offered per share and the target's stock price 30 days before the M&A announcement. The main explanatory variables are 52WH, which is defined as the log difference between the target's highest stock price over the 335 days ending 30 days prior to the M&A announcement and the stock price 30 days prior to the announcement date, and b_1 , b_2 , and b_3 , which represent the piecewise linear decomposition of 52WH as described in Equation 1. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (3) display results for the US sample, while Columns (4) to (6) report the corresponding results for the international sample. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

			Dependent Varia	ble: Offer Premium			
	US			International			
	(1)	(2)	(3)	(4)	(5)	(6)	
52WH	0.0684*** (4.64)			0.0320** (2.00)			
b_1		0.3614***	0.3119***		0.1829***	0.1866***	
		(9.41)	(7.52)		(2.65)	(2.62)	
b_2		0.0429	0.0473		-0.0880**	-0.1024**	
		(1.42)	(1.55)		(-2.24)	(-2.37)	
b_3		0.0067	0.0359		0.0892***	0.0406	
		(0.19)	(1.00)		(2.69)	(1.05)	
Cash			0.1610			-0.8134	
			(0.20)			(-0.68)	
Stock			0.4997			-0.8411	
			(0.47)			(-0.40)	
Hostile			3.7283***			9.5654***	
			(3.61)			(3.89)	
Tender Offer			6.9149***			17.0224***	
			(9.29)			(13.10)	
Financial Buyer			-4.8861***			5.9348**	
1 millionin 2 mger			(-3.46)			(2.16)	
Target ROA			0.1674***			0.0618***	
			(5.71)			(3.41)	
Target B/M			0.0294***			-0.0002	
			(3.57)			(-0.32)	
Target Size			-0.3899			-2.9967***	
111ger 512e			(-1.19)			(-7.88)	
Target Volatility			-0.6950**			-1.7367***	
lurger volutility			(-2.02)			(-3.34)	
Tanaat Daat Datum			-0.0269***			-0.0610***	
Target Past Return							
Target Insparce Duise	3.0247***	2.7250***	(-3.02) 3.3574***	1.6063***	1.6397***	(-7.19) 0.7009**	
Target Inverse Price							
	(7.05)	(6.34)	(4.89)	(5.19)	(5.28)	(1.96)	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	
Target Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	
Ν	8,623	8,623	8,464	8,497	8,497	6,742	
Adjusted R ²	0.0547	0.0616	0.0906	0.0561	0.0571	0.1075	

Table A6. Target 52-Week High and Offer Premia – Non-winsorized Offer Premium

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is *Offer Premium*, which is – in this case only – the *non-winsorized* log difference between the price offered per share and the target's stock price 30 days before the M&A announcement. The main explanatory variables are 52WH, which is defined as the log difference between the target's highest stock price over the 335 days ending 30 days prior to the M&A announcement and the stock price 30 days prior to the announcement date, and b_1 , b_2 , and b_3 , which are the piecewise linear decomposition of 52WH as described in Equation 1. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (3) display results for the US sample, while Columns (4) to (6) report the corresponding results for the international sample. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Offer Premium					
	US			International		
	(1)	(2)	(3)	(4)	(5)	(6)
52WH	0.0977***			0.0545***		
	(5.31)			(2.63)		
b_1		0.3708***	0.3158***		0.2055**	0.1908*
		(8.60)	(6.70)		(2.15)	(1.88)
b_2		0.0354	0.0353		-0.1394**	-0.1565***
		(0.91)	(0.89)		(-2.49)	(-2.75)
<i>b</i> ₃		0.0704	0.0947*		0.1727***	0.0579
		(1.40)	(1.81)		(3.83)	(1.23)
Cash			-1.0187			0.0084
			(-1.15)			(0.01)
Stock			-0.1770			3.3730
			(-0.15)			(1.35)
Hostile			3.7550***			12.1256***
			(3.07)			(4.54)
Tender Offer			7.6967***			19.0071***
22			(10.31)			(11.10)
Financial Buyer			-4.2934**			5.8474*
Ũ			(-2.24)			(1.96)
Target ROA			0.1779***			0.0687***
0			(4.36)			(2.77)
Target B/M			0.0258***			-0.0000
0			(2.78)			(-0.04)
Target Size			-0.0064			-2.7140***
0			(-0.02)			(-5.80)
Target Volatility			-0.0522			-1.0057
0 0			(-0.16)			(-1.56)
Target Past Return			-0.0241***			-0.0826***
0			(-2.66)			(-7.23)
Target Inverse Price	3.3500***	3.1116***	3.9560***	3.0036***	3.0776***	2.1482***
-	(6.57)	(6.05)	(4.29)	(5.90)	(6.03)	(3.59)
N	8,626	8,626	8,466	8,529	8,529	6,766
Adjusted R^2	0.0379	0.0415	0.0640	0.0116	0.0135	0.0572

Table A7. Target 52-Week High and Offer Premia – Additional International Evidence

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is *Offer Premium*, which is the log difference between the price offered per share and the target's stock price 30 days before the M&A announcement. The main explanatory variable is 52*WH*, which is defined as the log difference between the target's highest stock price over the 335 days ending 30 days prior to the M&A announcement and the stock price 30 days prior to the announcement date. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Columns (1) to (5) display results for subsamples of M&A deals in Europe, the Asia-Pacific region, the Americas, the UK, and Japan, respectively. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Offer Premium							
	Europe	Asia-Pacific	Americas	UK	Japan			
	(1)	(2)	(3)	(4)	(5)			
52WH	-0.0573	0.0694***	0.0872**	0.1031*	-0.1001***			
	(-0.99)	(3.38)	(2.32)	(1.92)	(-2.77)			
Target Inverse Price	1.4385*	4.2758***	3.2602**	0.8980	-1.5378*			
-	(1.68)	(9.66)	(2.40)	(0.75)	(-1.96)			
Ν	1,117	5 <i>,</i> 535	628	573	676			
Adjusted R ²	0.0022	0.0297	0.0407	0.0190	0.0184			

Table A8. Target 52-Week High and Offer Premia – International Evidence with Controls

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is *Offer Premium*, which is the log difference between the price offered per share and the target's stock price 30 days before the M&A announcement. The main explanatory variables are b_1 , b_2 , and b_3 , which represent the piecewise linear decomposition of 52*WH* as described in Equation 1. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (5) display results for subsamples of M&A deals in Europe, the Asia-Pacific region, the Americas, the UK, and Japan, respectively. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

- i	Dependent Variable: Offer Premium							
	Europe	Asia-Pacific	Americas	UK	Japan			
	(1)	(2)	(3)	(4)	(5)			
<i>b</i> ₁	0.2418	0.3321***	0.0194	0.5963***	0.0209			
	(1.23)	(3.70)	(0.08)	(2.96)	(0.10)			
b_2	-0.4518***	-0.0708	-0.0628	0.0136	-0.0675			
	(-2.75)	(-1.36)	(-0.42)	(0.09)	(-0.40)			
b_3	-0.0393	0.0622	0.1222*	0.0847	0.0216			
-	(-0.27)	(0.99)	(1.76)	(0.88)	(0.23)			
Cash	3.0767	-2.5338	7.7803*	10.5844**	-6.5208			
	(0.99)	(-1.63)	(1.85)	(2.18)	(-1.32)			
Stock	-1.8109	1.0689	-1.8791	-4.6027	7.3078			
	(-0.33)	(0.32)	(-0.37)	(-0.72)	(1.14)			
Hostile	-0.0696	12.1526***	8.6604	-0.1690	10.2687			
	(-0.01)	(2.91)	(1.34)	(-0.06)	(0.98)			
Tender Offer	11.5027***	21.3123***	4.6585	6.7771**	35.5772***			
	(3.88)	(11.00)	(0.96)	(2.20)	(8.45)			
Financial Buyer	-6.9818	10.0848***	-9.2053	-2.6545	6.8408			
5	(-1.03)	(3.04)	(-1.35)	(-0.30)	(0.98)			
Target ROA	0.2061**	0.0606***	0.0522*	-0.0153	-0.0577			
0	(2.10)	(3.10)	(1.85)	(-0.12)	(-0.72)			
Target B/M	0.0029**	-0.0005	-0.0083	0.0369*	0.0377**			
0	(1.98)	(-1.42)	(-0.60)	(1.90)	(2.51)			
Target Size	0.7208	-4.2031***	-2.3119	-0.7080	-0.1783			
8	(0.81)	(-8.62)	(-1.41)	(-0.63)	(-0.14)			
Target Volatility	1.6014	-2.0009***	0.9463	0.6305	-2.0877			
0 0	(1.12)	(-2.97)	(0.97)	(0.43)	(-1.24)			
Target Past Return	-0.1118***	-0.0514***	-0.0086	0.0436	-0.0645*			
0	(-2.76)	(-6.24)	(-0.29)	(0.83)	(-1.76)			
Target Inverse Price	0.6988	1.6731***	2.3779	-1.3346	-0.4099			
0	(0.62)	(3.14)	(1.15)	(-0.84)	(-0.41)			
Ν	917	4.325	537	469	518			
Adjusted R ²	0.0505	0.0947	0.0602	0.0647	0.2085			

3.2. Targets' 52-Week High and Deal Success

Table A9. Target 52-Week High and Deal Success – Pre- and Post-Publication Period

This table presents average marginal effects based on probit regressions for the sample period from 1977 to 2007 (Panel A) and 2008 to 2020 (Panel B). The dependent variable is *Deal Success*, a dummy variable equal to 1 if a bid is accepted and 0 otherwise. Following Baker et al. (2012), we limit our sample to deals which SDC classifies as completed or withdrawn. The main explanatory variable is *Offer Premium* > 52WH, which is a dummy variable equal to 1 if *Offer Premium* exceeds the stock's 52-week high and 0 otherise. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Deal Controls is a vector of deal characteristics: *Cash, Stock, Hostile, Tender Offer*, and *Financial Buyer*. Target Controls is a vector of target characteristics: *Target ROA, Target B/M, Target Size, Target Volatility*, and *Target Past Return*. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) and (2) display results for the US sample, while Columns (3) and (4) report the corresponding results for the international sample. *t*-statistics are reported in parentheses and small font size. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Deal Success				
	L	JS	Intern	ational	
	(1)	(2)	(3)	(4)	
Panel A: Pre-Publication	Period (1977-2007)				
Offer Premium	0.0000	0.0002	0.0001	-0.0003	
	(0.24)	(0.94)	(0.39)	(-0.83)	
Offer Premium > 52WH	0.0386***	0.0544***	-0.0695*	-0.0054	
	(3.24)	(4.60)	(-1.81)	(-0.13)	
Target Inverse Price	-0.0188***	0.0038	-0.0075	-0.0176**	
	(-3.66)	(0.45)	(-1.07)	(-1.98)	
Deal Controls	No	Yes	No	Yes	
Target Controls	No	Yes	No	Yes	
N	6,565	6,422	915	609	
Pseudo R ²	0.0054	0.1603	0.0040	0.1674	
Panel B: Post-Publication	Period (2008-2020))			
Offer Premium	0.0003	0.0002	0.0002	-0.0003*	
	(1.13)	(0.83)	(1.20)	(-1.85)	
Offer Premium > 52WH	0.0857***	0.0542***	0.1326***	0.1070***	
	(4.14)	(2.92)	(8.85)	(6.53)	
Target Inverse Price	-0.0211***	-0.0174*	0.0016	-0.0139***	
C	(-2.81)	(-1.65)	(0.46)	(-3.39)	
Deal Controls	No	Yes	No	Yes	
Target Controls	No	Yes	No	Yes	
N	1,646	1,642	3,935	3,311	
Pseudo R ²	0.0298	0.3450	0.0240	0.1993	

Table A10. Target 52-Week High and Deal Success – Additional Acquirer Controls

This table presents average marginal effects based on probit regressions for the sample period from 1977 to 2020. The dependent variable is *Deal Success*, a dummy variable equal to 1 if a bid is accepted and 0 otherwise. Following Baker et al. (2012), we limit our sample to deals that SDC classifies as completed or withdrawn. The main explanatory variable is *Offer Premium* > 52*WH*, which is a dummy variable equal to 1 if *Offer Premium* exceeds the stock's 52-week high and 0 otherwise. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Deal Controls is a vector of deal characteristics: *Cash, Stock, Hostile, Tender Offer*, and *Financial Buyer*. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. The additional bidder controls are defined analogously to the target controls. Columns (1) and (2) display results for the US sample, while Columns (3) and (4) report the corresponding results for the international sample. *t*-statistics are reported in parentheses and small font size. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Deal Success				
	τ	JS	Intern	ational	
	(1)	(2)	(3)	(4)	
Offer Premium	-0.0002	-0.0002	-0.0000	-0.0004	
	(-0.88)	(-0.78)	(-0.02)	(-0.93)	
Offer Premium > 52WH	0.0453***	0.0490***	0.0338	0.0205	
	(3.23)	(3.59)	(1.15)	(0.67)	
Target ROA		-0.0001		0.0011*	
2		(-0.31)		(1.77)	
Target B/M		-0.0001		0.0004**	
0		(-0.54)		(2.15)	
Target Size		-0.0227***		-0.0589***	
0		(-3.59)		(-4.21)	
Target Volatility		-0.0017		-0.0065	
		(-0.41)		(-0.63)	
Target Past Return		-0.0001		0.0002	
C .		(-0.47)		(0.99)	
Bidder ROA	-0.0010**	-0.0008*	-0.0016	-0.0018	
	(-2.04)	(-1.71)	(-1.39)	(-1.35)	
Bidder B/M	-0.0002	-0.0000	0.0000	-0.0002	
	(-1.50)	(-0.32)	(0.17)	(-1.15)	
Bidder Size	0.0301***	0.0386***	-0.0517***	0.0128	
	(7.11)	(6.52)	(-5.92)	(0.92)	
Bidder Volatility	-0.0141***	-0.0102**	-0.0285***	-0.0191	
C C	(-2.93)	(-2.05)	(-2.65)	(-1.52)	
Target Inverse Price	0.0222***	-0.0006	-0.0199***	-0.0250***	
C	(2.82)	(-0.07)	(-2.66)	(-3.13)	
Deal Controls	No	Yes	No	Yes	
Ν	3,992	3,919	937	844	
Pseudo R ²	0.0297	0.1906	0.0435	0.2096	

Table A11. Target 52-Week High and Deal Success – Additional Fixed Effects

This table presents average marginal effects based on probit regressions for the sample period from 1977 to 2020. The dependent variable is *Deal Success*, a dummy variable equal to 1 if a bid is accepted and 0 otherwise. Following Baker et al. (2012), we limit our sample to deals that SDC classifies as completed or withdrawn. The main explanatory variable is *Offer Premium* > 52*WH*, which is a dummy variable equal to 1 if *Offer Premium* exceeds the stock's 52-week high and 0 otherwise. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) and (2) display results for the US sample, while Columns (3) and (4) report the corresponding results for the international sample. *t*-statistics are reported in parentheses and small font size. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Deal Success				
	US		Intern	ational	
	(1)	(2)	(3)	(4)	
Offer Premium	0.0001	0.0002	0.0000	-0.0004**	
	(0.56)	(1.27)	(0.14)	(-2.43)	
Offer Premium > 52WH	0.0524***	0.0480***	0.0798***	0.0760***	
	(5.02)	(4.82)	(5.68)	(4.97)	
Cash		-0.0049		0.0592***	
		(-0.48)		(4.17)	
Stock		0.0202*		0.1064***	
		(1.75)		(6.28)	
Hostile		-0.5994***		-0.4591***	
		(-36.72)		(-16.39)	
Tender Offer		0.1706***		0.1937***	
		(23.89)		(15.01)	
Financial Buyer		-0.0337*		-0.0414	
C C		(-1.66)		(-1.04)	
Target ROA		-0.0001		0.0007***	
0		(-0.29)		(3.85)	
Target B/M		-0.0002***		-0.0000	
0		(-3.98)		(-0.73)	
Target Size		-0.0020		-0.0453***	
C .		(-0.53)		(-10.80)	
Target Volatility		-0.0034		-0.0056	
		(-1.20)		(-1.36)	
Target Past Return		0.0000		-0.0001	
C .		(0.35)		(-1.06)	
Target Inverse Price	-0.0231***	-0.0126*	0.0009	-0.0156***	
-	(-5.10)	(-1.74)	(0.30)	(-4.13)	
Year FE	Yes	Yes	Yes	Yes	
Target Industry FE	Yes	Yes	Yes	Yes	
N	8,198	8,052	4,829	3,897	
Pseudo R ²	0.0588	0.2302	0.0797	0.2343	

Table A12. Target 52-Week High and Deal Success – International Evidence with Target Controls This table presents average marginal effects based on probit regressions for the sample period from 1977 to 2020. The dependent variable is *Deal Success*, a dummy variable equal to 1 if a bid is accepted and 0 otherwise. Following Baker et al. (2012), we limit our sample to deals that SDC classifies as completed or withdrawn. The main explanatory variable is *Offer Premium* > 52*WH*, which is a dummy variable equal to 1 if *Offer Premium* exceeds the stock's 52-week high and 0 otherwise. To prevent spurious correlation (Pearson, 1896; Kronmal, 1993), we include the inverse of the target's stock price measured 30 days prior to the announcement (*Target Inverse Price*) in all columns. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (5) display results for subsamples of M&A deals in Europe, the Asia-Pacific region, the Americas, the UK, and Japan, respectively. *t*-statistics are reported in parentheses and small font size. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: Deal Success						
	Europe	Asia-Pacific	Americas	UK	Japan		
	(1)	(2)	(3)	(4)	(5)		
Offer Premium	-0.0002	-0.0006**	-0.0001	-0.0008	-0.0012***		
22	(-0.59)	(-2.54)	(-0.29)	(-1.23)	(-2.89)		
Offer Premium > 52WH	0.0391	0.0740***	0.0209	0.0749*	0.0830***		
	(1.34)	(2.82)	(0.49)	(1.65)	(3.73)		
Cash	-0.0573**	0.1100***	-0.0230	0.0729	-0.1017**		
	(-2.19)	(4.81)	(-0.54)	(1.50)	(-2.52)		
Stock	-0.0094	0.2080***	-0.0480	-0.0016	0.0246		
	(-0.22)	(7.82)	(-0.95)	(-0.03)	(0.60)		
Hostile	-0.5003***	-0.3366***	-0.5680***	-0.5627***	-0.8140***		
	(-6.79)	(-7.80)	(-6.87)	(-8.44)	(-8.86)		
Tender Offer	0.1297***	0.2895***	0.0435	0.1169***	0.1633***		
	(5.02)	(12.76)	(1.10)	(3.28)	(4.22)		
Financial Buyer	0.0205	-0.1383*	-0.0060	-0.1391	-0.0262		
U U	(0.38)	(-1.92)	(-0.07)	(-1.10)	(-0.12)		
Target ROA	-0.0002	0.0012***	-0.0005	-0.0030*	0.0008**		
C	(-0.34)	(4.57)	(-0.83)	(-1.73)	(2.06)		
Target B/M	-0.0000	-0.0000	0.0001	-0.0001	0.0000		
C	(-0.85)	(-1.45)	(0.99)	(-0.69)	(0.47)		
Target Size	-0.0496***	-0.0505***	-0.0232*	0.0162	-0.0141*		
-	(-6.63)	(-7.27)	(-1.66)	(1.24)	(-1.90)		
Target Volatility	-0.0066	-0.0264***	-0.0094	0.0012	-0.0005		
	(-0.75)	(-3.80)	(-1.06)	(0.11)	(-0.07)		
Target Past Return	0.0004	0.0001	0.0003	0.0004	-0.0002		
C	(1.28)	(0.36)	(0.98)	(0.86)	(-0.89)		
Target Inverse Price	-0.0252***	0.0240***	0.0032	0.0305*	-0.0089		
-	(-3.10)	(3.45)	(0.22)	(1.69)	(-1.54)		
Ν	766	1,850	443	411	450		
Pseudo R ²	0.2225	0.1728	0.1566	0.2579	0.3835		

4. Empirical Evidence on the Acquirer's 52-Week High

Table A13. Acquirer 52-Week High and Market Reactions – Pre- and Post-Publication Period This table presents results for OLS regressions for the sample period from 1977 to 2014 (Panel A) and from 2015 to 2020 (Panel B). The dependent variable is ACAR, the acquirer's cumulative abnormal returns around an M&A announcement. These abnormal returns are market-adjusted and calculated over asymmetric seven-day event windows [-5;+1] around the M&A announcement. The main explanatory variable, the acquirer's reference price ratio (*RPR*), is the ratio of the stock price six days before the M&A announcement relative to the stock's highest price over the 252 preceding trading days. Deal Controls is a vector of deal characteristics: *Cash, Stock, Private Target, Stock* × Private Target, Hostile, Tender Offer, Dormant, Same Industry, Toehold, Cross Border, and Relative Size. Bidder Controls is a vector of acquirer characteristics: Bidder Ln(M/B, Bidder Size, Bidder Leverage, and *Bidder Past Return*. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (3) display results for the US sample, while Columns (4) to (6) report the corresponding results for the international sample. Columns (3) and (6) report results for deals with public targets only. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: ACAR							
		US			International			
	(1)	(2)	(3)	(4)	(5)	(6)		
Panel A: Pre-Pub	lication Period	d (1977-2014)						
RPR	-3.9323***	-3.6850***	-2.1949*	-2.5953***	-2.5590***	-1.2535		
	(-7.77)	(-6.28)	(-1.75)	(-4.14)	(-2.79)	(-0.64)		
Deal Controls	No	Yes	Yes	No	Yes	Yes		
Bidder Controls	No	Yes	Yes	No	Yes	Yes		
Year FE	Yes	Yes	Yes	Yes	Yes	Yes		
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes		
Ν	20,195	19,436	5,066	13,638	9,531	1,624		
Adjusted R ²	0.0202	0.0532	0.0403	0.0143	0.0493	0.0317		
Panel B: Post-Pub	lication Perio	d (2015-2020)						
RPR	-6.3978***	-4.4509**	-2.9911	-2.8782***	-1.7216*	1.3731		
	(-3.66)	(-2.06)	(-0.73)	(-3.08)	(-1.65)	(0.37)		
Deal Controls	No	Yes	Yes	No	Yes	Yes		
Bidder Controls	No	Yes	Yes	No	Yes	Yes		
Year FE	Yes	Yes	Yes	Yes	Yes	Yes		
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes		
N	1,979	1,904	472	6,508	5,108	555		
Adjusted R ²	0.0386	0.0496	0.0970	0.0158	0.0416	0.0328		

Table A14. Acquirer 52-Week High and Market Reactions – Additional Target Controls

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is ACAR, the acquirer's cumulative abnormal return around an M&A announcement. The abnormal returns are market-adjusted and cumulated over an asymmetric seven-day event window [-5;+1] around the M&A announcement. The main explanatory variable, the acquirer's reference price ratio (*RPR*), is the ratio of the stock price six days before the M&A announcement relative to the stock's highest price over the 252 preceding trading days. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. The additional target controls are defined analogously to the bidder controls. Columns (1) and (2) display results for the US sample, while Columns (3) and (4) report the corresponding results for the international sample. All columns provide results for deals with public targets only. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	· · · ·	ariable: ACAR		
	τ	JS	Interna	tional
	(1)	(2)	(3)	(4)
RPR	-2.1394	-3.6533**	-1.4764	0.1073
Cash	(-1.57)	(-2.27) 1.3724*** (2.55)	(-0.61)	(0.04) -0.0818 (0.10)
Stock		(3.55) -0.1387 (-0.38)		(-0.10) 1.8820^{**} (2.04)
Hostile		-0.4290 (-0.94)		-1.2186 (-1.21)
Tender Offer		1.0536*** (2.62)		(-1.21) 1.2068* (1.77)
Dormant		(2.02) 0.6169 (0.59)		-4.3501 (-1.50)
Same Industry		0.0212 (0.06)		-0.0978 (-0.14)
Toehold		0.1113 (0.18)		-0.9993 (-1.30)
Cross Border		2.3422*** (2.59)		1.2040 (1.30)
Relative Size		-0.4527 (-0.68)		1.2331 (1.00)
Bidder Ln(M/B)		-0.1246 (-0.37)		0.1039 (0.20)
Bidder Size		-0.2008 (-0.86)		-0.7142* (-1.71)
Bidder Leverage		0.6557 (0.57)		3.5906 ^{**} (2.12)
Bidder Past Return		0.8226** (2.00)		-0.9438 (-1.22)
Target RPR	3.6759*** (3.17)	3.6390 ^{***} (2.97)	3.5781* (1.81)	3.1306 (1.50)
Target Ln(M/B)	-0.2527 (-0.99)	-0.3456 (-1.22)	0.0538 (0.13)	0.2372 (0.50)
Target Size	-0.6440*** (-6.67)	-0.3587 (-1.55)	-0.7374*** (-3.68)	-0.3718 (-0.87)
Target Leverage	0.8391 (1.01)	1.4593 (1.61)	-1.6223 (-1.08)	-2.2739 (-1.37)
Target Past Return	0.1683 (0.40)	-0.0607 (-0.14)	-0.4753*** (-2.59)	-0.3903** (-2.14)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
N Adjusted R ²	3,836 0.0423	3,612 0.0488	1,079 0.0284	906 0.0428

Table A15. Acquirer 52-Week High and Market Reactions – Symmetric Event Window

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is ACAR, the acquirer's cumulative abnormal returns around an M&A announcement. These abnormal returns are market-adjusted and calculated over a symmetric three-day event window [-1;+1] around the M&A announcement. The main explanatory variable, the acquirer's reference price ratio (*RPR*), is the ratio of the stock price six days before the M&A announcement relative to the stock's highest price over the 252 preceding trading days. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (3) display results for the US sample, while Columns (4) to (6) report the corresponding results for the international sample. Columns (3) and (6) report results for deals with public targets only. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: ACAR						
		US			International		
	(1)	(2)	(3)	(4)	(5)	(6)	
RPR	-2.5491***	-2.2702***	0.2509	-1.4393***	-0.4187	-1.4586	
	(-6.57)	(-5.01)	(0.25)	(-3.62)	(-0.86)	(-1.05)	
Cash		0.3205***	1.3269***		-0.3351**	0.4702	
		(2.72)	(5.46)		(-2.23)	(1.18)	
Stock		-1.8970***	-0.9260***		0.0868	1.2410***	
		(-8.72)	(-3.84)		(0.23)	(2.73)	
Private Target		1.9846***			1.1352***		
		(13.34)			(5.03)		
Stock × Private Target		2.0044***			1.5647***		
		(6.74)			(3.20)		
Hostile		-0.8865***	-0.4659		-1.8901***	-1.4910**	
		(-2.98)	(-1.45)		(-3.63)	(-2.56)	
Tender Offer		0.7644***	0.7174***		0.0819	0.2399	
		(3.11)	(2.59)		(0.25)	(0.65)	
Dormant		-0.0403	0.4569		-0.0791	-1.8095	
		(-0.11)	(0.56)		(-0.14)	(-1.04)	
Same Industry		0.2183*	0.2712		0.1582	0.1346	
		(1.93)	(1.17)		(1.12)	(0.37)	
Toehold		0.6030*	-0.1616		-0.4284*	0.0489	
		(1.93)	(-0.42)		(-1.80)	(0.12)	
Cross Border		-0.1447	0.4415		0.1214	0.3453	
		(-0.88)	(1.20)		(0.81)	(0.85)	
Relative Size		1.2291***	-1.1573***		2.3223***	0.3380	
		(5.88)	(-3.73)		(7.94)	(0.59)	
Bidder Ln(M/B)		0.0856	-0.1538		0.4197***	0.1008	
		(0.90)	(-0.79)		(4.20)	(0.39)	
Bidder Size		-0.2733***	-0.4720***		-0.2823***	-0.4697***	
		(-7.19)	(-6.84)		(-6.10)	(-4.08)	
Bidder Leverage		0.0456	1.1728		-0.1362	0.0166	
		(0.15)	(1.62)		(-0.37)	(0.02)	
Bidder Past Return		0.5136***	0.1527		-0.0278	-0.3346	
		(4.69)	(0.62)		(-0.31)	(-0.93)	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	
Ν	22,174	21,340	5,538	20,146	14,639	2,179	
Adjusted R ²	0.0197	0.0571	0.0580	0.0177	0.0441	0.0327	

Table A16. Acquirer 52-Week High and Market Reactions – International Evidence with Symmetric Event Window

This table presents results for OLS regressions for the sample period from 1977 to 2020. The dependent variable is ACAR, the acquirer's cumulative abnormal returns around an M&A announcement. These abnormal returns are market-adjusted and calculated over a symmetric three-day event window [-1;+1] around the M&A announcement. The main explanatory variable, the acquirer's reference price ratio (*RPR*), is the ratio of the stock price six days before the M&A announcement relative to the stock's highest price over the 252 preceding trading days. Further explanatory variables are reported in Table A1 in the Appendix of the paper. A constant term is included but not reported. Columns (1) to (5) display results for subsamples of M&A deals in Europe, the Asia-Pacific region, the Americas, the UK, and Japan, respectively. The *t*-statistics in parentheses and small font size are calculated using the method by White (1980) to account for heteroskedasticity. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Dependent Variable: ACAR						
	Europe	Asia-Pacific	Americas	UK	Japan		
	(1)	(2)	(3)	(4)	(5)		
RPR	-1.2100	-0.2067	-6.6107*	-1.0506	-1.8299		
	(-1.09)	(-0.30)	(-1.71)	(-0.78)	(-1.11)		
Cash	0.2465	-0.4948*	-0.5585	0.0957	-0.0624		
	(0.91)	(-1.93)	(-0.66)	(0.30)	(-0.11)		
Stock	-0.7448	0.6316	0.0916	0.0729	-0.2687		
	(-1.02)	(1.04)	(0.06)	(0.07)	(-0.24)		
Private Target	1.5177***	0.6177*	1.9748*	2.8822***	0.1403		
	(3.79)	(1.87)	(1.68)	(4.63)	(0.17)		
Stock × Private Target	1.2196	1.2092*	3.9945	-0.9361	3.4227**		
	(1.25)	(1.68)	(1.39)	(-0.56)	(2.28)		
Hostile	-2.9793***	-1.3147	-1.9516	-2.8600**	0.0252		
	(-3.66)	(-1.37)	(-0.99)	(-2.12)	(0.01)		
Tender Offer	-0.1281	-0.1344	-1.2867	1.0856	-0.0929		
	(-0.23)	(-0.21)	(-0.80)	(1.42)	(-0.09)		
Dormant	-0.9570	-0.4232	-2.1210	2.9296*	1.6885		
	(-1.04)	(-0.51)	(-0.76)	(1.69)	(0.99)		
Same Industry	0.0748	0.0976	1.5116*	0.2008	0.1239		
	(0.27)	(0.44)	(1.68)	(0.67)	(0.28)		
Toehold	-0.4356	-0.7317**	-3.8643**	0.3294	0.7520		
	(-0.92)	(-2.23)	(-2.00)	(0.41)	(0.98)		
Cross Border	0.4519*	0.2242	-1.0168	-0.0637	-0.7381		
	(1.73)	(0.84)	(-1.37)	(-0.18)	(-1.20)		
Relative Size	3.1477***	2.1658***	0.7909	1.2254	4.0722***		
	(6.16)	(5.17)	(0.44)	(1.58)	(3.63)		
Bidder Ln(M/B)	0.5895***	0.3581**	0.5968	-0.0515	0.4090		
	(2.82)	(2.38)	(0.91)	(-0.23)	(0.97)		
Bidder Size	-0.3537***	-0.2857***	-0.0387	-0.1984*	-0.4888***		
	(-4.15)	(-3.47)	(-0.13)	(-1.82)	(-2.83)		
Bidder Leverage	0.4899	-0.8247	1.8333	1.2568	-0.1872		
	(0.63)	(-1.54)	(0.83)	(1.40)	(-0.16)		
Bidder Past Return	0.3148	-0.0250	0.8359	0.2412	-0.7018		
	(1.23)	(-0.25)	(0.90)	(0.65)	(-1.24)		
Year FE	Yes	Yes	Yes	Yes	Yes		
Industry FE	Yes	Yes	Yes	Yes	Yes		
N	2,872	7,140	507	2,566	1,554		
Adjusted R^2	0.0828	0.0500	0.1064	0.0371	0.0522		