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Rajamani, Anjana; van der Poel, Marieke; de Jong, Abe; Ongena, Steven

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The International Diversification of Banks and the Value of Their Cross-Border M&A Advice

Anjana Rajamani,^a Marieke van der Poel,^{a,b} Abe de Jong,^{a,c} Steven Ongena^{d,e}

^a Rotterdam School of Management, Erasmus University, 3062 PA Rotterdam, Netherlands; ^b PwC, 3065 WB Rotterdam, Netherlands;

^c University of Groningen, 9747 AE Groningen, Netherlands; ^d University of Zurich, 8032 Zurich, Switzerland, Swiss Finance Institute, CH-8006 Zurich, Switzerland; ^e Centre for Economic Policy Research, London EC1V 0DX, United Kingdom

Contact: rajamani@rsm.nl (AR); mpole@rsm.nl (MvdP); ajong@rsm.nl (AdJ); steven.ongena@bf.uzh.ch (SO)

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Abstract. We examine the impact of the international diversification of banks on the value of their advice in 1,705 cross-border merger and acquisition (M&A) transactions. We find that bidders engaging internationally diversified advisors face lower announcement returns. An increase of one standard deviation in advisor diversification is associated with an announcement return lower by 92 basis points for a bidder acquiring a listed target. The lower bidder returns are attributable to the lower synergies of the deals being completed. Our evidence suggests that internationally diversified advisors offer lower-quality advice to their clients, since their reputational concerns are weakened by having access to multiple geographies from which they can derive fee-based income. We present further evidence that financial incentives in the form of the advisor's involvement in deal financing and market incentives in the form of the potential to gain market share in the bidder country may mitigate some of the negative effects of the international diversification of the advisors.

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Keywords: bank diversification • cross-border mergers and acquisitions • advisor choice

1. Introduction

Merger advisory firms fulfill a crucial role in advising firms that engage in mergers and acquisitions (M&As). According to Grocer (2013), between 2000 and 2007, on average, merger advisors were hired for 82% of all deals completed each year during the period. However, despite the overwhelming number of deals in which one or both parties hire merger advisors, the value of their advice has not been without debate. Merger advisors have been criticized for goading CEOs into unwanted mergers.¹ Further, Rau (2000) and Bao and Edmans (2011) find evidence that investment banks with larger market shares (that are hence likely to be “top-tier” advisors) are associated with lower M&A returns for bidders. In this paper we examine the extent to which the business model employed by banks impacts the value of their merger advice in the context of cross-border M&A transactions.² Specifically, we examine how the international diversification of banks offering M&A advice impacts the bidder outcome (i.e., bidder cumulative abnormal returns or CARs) and the overall outcome (or synergy) from deals advised by them. We focus on the international diversification aspect since deregulation, such as the European Second Banking Directive, has caused an enormous

international expansion by financial institutions, giving them access to multiple geographies from which to draw fee-based revenues. Such international expansion would impact the ability, as well as the reputational concerns, of merger advisors, which would in turn affect the quality of their merger advice.

We examine the effects of international diversification in the context of 1,705 cross-border M&A transactions that were announced over a 16-year period (1990–2005) before the financial crisis. We focus on cross-border deals since the international diversification and hence greater international experience of advisors are more likely to be relevant to their clients that are involved in the acquisition of cross-border targets rather than domestic targets. Furthermore, because of the worldwide removal of entry restrictions in many industries and the growing significance of services in the economy (Hijzen et al. 2008), the number and importance of cross-border mergers and M&A transactions have increased dramatically over the past few decades (Erel et al. 2012).

We hypothesize that two nonmutually exclusive channels exist through which the international diversification of the advisor can impact the bidder/deal outcome. On the one hand, short-term-oriented fee contracts with clients and a bonus system that rewards

individual bankers based on revenues provide incentives to maximize the number and the size of the transactions, regardless of value creation through the deals (McLaughlin 1990, Rau 2000).³ Long-term reputational concerns may inhibit such short-term behavior (McLaughlin 1990). In the case of internationally diversified advisors, having access to multiple geographies to earn fee-based income may reduce their reputational concerns since the good or bad reputation of the advisor in one (geographic) region may not spill over to other regions quickly, if at all. Hence, for internationally diversified advisors, the short-term benefits of inferior M&A advice could outweigh its long-term reputational costs,⁴ which would then result in a negative relation between the advisors' international diversification and bidder CARs. On the other hand, bidders could benefit from having internationally diversified advisors since they are more likely to have experience in doing deals in various target countries. Through their superior experience, internationally diversified advisors could have a positive impact on bidder gains. However, if the conflicts of interests brought on by international diversification outweigh the benefits from superior experience, a lower quality of advice offered by internationally diversified advisors would result. In such a scenario we would expect a negative association between the advisors' international diversification and bidder gains.

To empirically assess the two hypotheses, we use a comprehensive metric for international diversification, which is an entropy measure, as introduced by Jacquemin and Berry (1979), popularized by Palepu (1985), and extended to include international market diversification by Kim (1989). This measure determines the diversification of an advising bank based on the M&A deals it previously advised, while taking into account both the number of countries in which the bank was active and the distribution of business share among these countries. In our setting, a higher entropy value implies that advising banks are active in more countries and/or have smaller, more equal market shares in these countries.

Our results are most supportive of the conflicts-of-interest hypothesis. For the whole cross section of 1,705 cross-border deals, we find that international diversification of the bidder advisor negatively impacts bidder announcement returns and that this effect is most prevalent among acquisitions that require more effort and skills, i.e., acquisitions of foreign listed targets. The average negative effect for the listed-target deals is economically significant—an increase of one standard deviation in our entropy measure decreases the bidder's three-day CARs by 92 basis points (bps), reflecting \$96 million of the average bidder's market value. These results indicate that, on average, the weakening of reputational concerns of internationally diversified advisors weighs more heavily on the value of

deal advice than their superior experience/ability to advise cross-border deals. Although the negative relation between international diversification and bidder returns supports the conflicts-of-interest hypothesis, this negative relation is mitigated when the merger advisor is involved in the financing of the deal. This suggests that, when advisors have skin in the game, they are more concerned about the quality of the deal, which improves the value of their merger advice.

We also investigate the sources of the impact of advisors' international diversification on bidders' outcome from deals by focusing on their synergy gains and their relative share of the synergy gains. We find that advisors' international diversification is negatively related to the synergy gains from deals.⁵ However, commitment to financing somewhat mitigates this effect, indicating that the advisor's involvement in financing generates incentives to act in the interest of the bidders by providing superior advice. Our results suggest that such superior advice comes in the form of allocating targets that generate greater synergies for the bidder rather than from negotiating a greater share of the synergy gains for the bidder.

Although our findings are consistent with the deterioration of the quality of advice offered by internationally diversified advisors due to the weakening of their reputational concerns, an alternative explanation for our findings is that bidders performing more complex deals select advisors that are more internationally diversified. Thus, the negative relation between international diversification and bidder gains could simply be due to unobserved deal complexity. To address this selection concern, we incorporate a Heckman selection model similar to that in Golubov et al. (2012), wherein we model the selection of an internationally diversified advisor (or a top-tier advisor) based on the bidder and the deal characteristics in the first stage. We continue to find a significant negative relation between bidder gains and synergy CARs and the international diversification of bidder advisors even after the inclusion of the inverse Mills ratio in the second stage to account for the effect of unobservable factors (such as deal complexity) in the selection of advisors.

To further address the potential endogeneity of advisor choice, we instrument for the bidder advisor's international diversification using the average international diversification of the past advisors hired by the bidder (or that of bidders in the same industry). After instrumenting for the bidder advisor's international diversification, the negative effect of international diversification on bidder CARs only remains for deals involving listed targets. Finally, we include (in all our specifications) dummy variables to capture the retention and switching behavior of bidders in their advisor choice. To the extent that the bidders' decision

to retain previous advisors (or switch to new advisors) is related to unobserved target/deal characteristics, the inclusion of these dummies would account for such unobserved heterogeneity. Our results are also robust to the use of changes in the level of international diversification of bidder advisors (instead of the level), the inclusion of advisor fixed effects (for listed targets only), and the inclusion of controls for industry expertise and bidder/target country focus of the bidder advisor. Although we cannot completely rule out the concern that our results are driven by unobserved target or deal characteristics, which may be related to the choice of advisors by bidders, these concerns are mitigated by the fact that our results are robust to various specifications designed to address these concerns.⁶

In sum, our study documents the relevance of the advising bank's international footprint for the value of its advice. Our study brings together two important strands of the literature. First, by examining the value of bank M&A advice, our paper contributes to the literature on geographic diversification in the banking industry as a potential source for lower bank value.⁷ The recent financial crisis highlighted the importance of the strategy and operations of large banks for the global economy. Their off-balance sheet activities and the conflicts of interest embedded therein have raised particular concerns. Our results justify the increased attention for banks' roles in advising M&As. Our paper also contributes to an extant literature on the role of financial advisors in M&A deals by analyzing an overlooked source for the impact of advisors on bidder returns and deal outcomes,⁸ namely their international diversification. Our findings further offer a potential explanation for the growing prominence of boutique M&A advisors.⁹ To the extent that smaller banks are less likely to be internationally diversified, their reputational concerns may restrain them from providing low-quality advice, which would in turn benefit the bidders.

2. Sample, Advisor Diversification, and Deal Outcomes

We first describe the data and our sample of M&A transactions. We then define our various measures of advisor diversification in activities across countries and discuss deal outcomes of interest. Table A.1 in the appendix contains the detailed definitions of all variables used in this paper.

2.1. Data and Sample

From the Securities Data Corporation (SDC) database we collect all cross-border deals (1) in which listed bidders engage an advisor, (2) that can have operating performance information available between 1985 and 2010 and hence that were announced between 1990 and 2005, (3) that are larger than \$ 10 million, (4) in which

the bidder sought at least 50% of the shares, and (5) that sought ownership of 95% or more after acquisition. A total of 2,979 deals satisfy these criteria.

In 388 deals the bidder or target is a financial firm (i.e., the primary Standard Industrial Classification (SIC) code is between 6000 and 6999),¹⁰ and in 71 cases the designation of the bidder is unclear (because the relative size of the acquisition versus the bidder is larger than or equal to 1). In 452 of the remaining 2,520 deals, bidders hire more than one advisor.¹¹ We lose a further 360 observations because of data unavailability. We are left with 1,705 fully and reliably documented deals in which listed nonfinancial bidders choose one advisor; of these, in 415 cases the (nonfinancial) target is also listed. We observe 344 different bidder-country/target-country combinations in total.

Table 1 reports the 20 most important target and bidder countries, but we observe at least 1 acquisition in 39 other target countries and 23 other bidder countries in the sample. A significant number of observations (20%) in our sample deals are between firms from the United States and the United Kingdom.

Table 2 lists the key statistics of advisor characteristics and deal outcomes for the listed targets (in the upper panel) and for all targets (in the lower panel). We describe in detail in the following section the construction of the international diversification and the bidder- and target-country focus measures.

2.2. International Diversification, Global Top Five, and Country Focus

We now introduce our three measures of the geographical presence of advisors. First, our main variable is labeled *International diversification*. Assume that there are A advisors ($a: 1, \dots, A$) operating in C countries ($c: 1, \dots, C$) and that the total value of the deals advisor z advises, d_{zx} , in country x during some time period is greater than or equal to 0 ($d_{zx} \geq 0$). We first define advisor country share as the ratio of the total value of deals that the bank advised in country x during the year before the cross-border acquisition announcement year and the total value of deals that the bank advised during the same period. We then define the international diversification of an advisor as equal to the sum of advisor country share times the natural logarithm of 1 over advisor country share across all countries in which the advisor operates.¹² Hence the *International diversification*, Div_z , of an advisor z with deals in some countries ($c: 1, \dots, C_z$) equals

$$Div_z = \sum_{x=1}^{C_z} \left(\left(\frac{d_{zx}}{\sum_{c=1}^{C_z} d_{zc}} \right) \ln \left(\frac{d_{zx}}{\sum_{c=1}^{C_z} d_{zc}} \right)^{-1} \right). \quad (1)$$

This measure is similar to the entropy measure of diversification defined in Jacquemin and Berry (1979)

Table 1. Number of Mergers and Acquisitions by Target and Bidder Country

Target country		Bidder country																				All	Listed	
		US	GB	DE	CA	FR	AU	NL	SE	CH	IT	ES	NO	BR	DK	IE	BE	NZ	CN	FI	IL			Other
United States	US	0	205	35	78	43	12	27	17	16	5	2	1	0	1	9	5	1	0	13	5	40	515	156
United Kingdom	GB	136	0	18	7	13	7	10	7	10	4	0	2	0	3	15	2	1	0	1	1	19	256	87
Germany	DE	54	30	0	4	5	1	3	3	6	4	1	1	0	0	0	5	0	0	5	0	5	127	7
Canada	CA	75	18	3	0	4	0	2	0	1	0	0	0	0	0	0	0	0	0	1	0	4	108	50
France	FR	37	32	2	3	0	0	2	3	2	7	0	1	0	2	1	2	0	0	1	1	1	97	11
Australia	AU	18	13	1	4	0	0	1	0	3	0	1	0	0	0	1	0	8	1	0	0	14	65	19
Netherlands	NL	15	26	1	1	5	1	0	0	1	1	3	1	0	0	0	0	0	0	3	0	7	65	6
Sweden	SE	10	11	4	1	2	0	1	0	1	0	0	4	0	3	0	0	0	0	8	0	2	47	9
Switzerland	CH	11	3	5	2	1	2	3	1	0	3	0	0	0	0	0	0	0	0	0	0	4	35	6
Italy	IT	9	16	0	0	2	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	33	0
Spain	ES	6	11	3	0	0	2	2	0	0	2	0	0	0	0	1	0	0	0	0	1	4	32	7
Norway	NO	7	6	0	0	4	0	2	3	0	2	0	0	0	1	0	0	0	0	2	0	3	30	13
Brazil	BR	9	0	0	1	4	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	21	1
Denmark	DK	7	3	1	0	0	0	1	3	0	0	0	4	0	0	0	0	0	0	1	0	0	20	3
Ireland	IE	7	12	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Belgium	BE	3	2	2	1	2	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	4	18	4
New Zealand	NZ	2	3	0	2	1	7	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	18	4
China	CN	5	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	0	8	17	1
Finland	FI	5	2	1	0	0	0	1	7	0	0	0	0	0	1	0	0	0	0	0	0	0	17	4
Israel	IL	15	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	4
Other	Other	41	32	2	5	12	5	5	2	5	1	0	2	1	0	1	1	0	3	0	1	28	147	23
All targets	All	472	426	78	110	98	39	65	48	49	30	7	17	1	12	27	16	11	4	36	9	151	1,705	415
Listed targets	Listed	116	56	30	40	35	7	23	11	16	7	5	2	0	7	13	4	1	0	8	2	32	415	

Notes. This table reports the number of mergers and acquisitions (M&As) by target and bidder country. The numbers of listed targets are in the rightmost column and in the lowest row. The countries in the target nation column are ranked by the total number of M&As.

and Palepu (1985).¹³ This entropy measure accounts comprehensively for both the number of countries as well as the share of deals in each country. For example, the diversification of an advisor equally present in two

countries, i.e., with a 50/50 split, equals $\ln(2) = 0.69$, whereas a 90/10 split halves the measure to 0.32. Diversification of an advisor equally present in three countries almost doubles the measure to $\ln(3) = 1.09$.

Table 2. Summary Statistics of Key Variables

	Units	25%	Mean	50% median	75%	Standard deviation	N
Listed targets							
Advisor geographical presence							
International diversification	—	0.852	1.260	1.414	1.718	0.637	415
d(Global top 5)	0/1	0.000	0.311	0.000	1.000	0.463	415
Target-country focus	—	0.005	0.204	0.047	0.336	0.282	415
Bidder-country focus	—	0.014	0.293	0.147	0.549	0.317	415
Deal returns							
Bidder CAR (−1, +1)	%	−3.256	−0.609**	−0.439*	2.530	6.118	415
Bidder relative gains (−1, +1)	%	−9.884	24.650***	7.814***	55.209	148.989	287
Synergy CAR (−1, +1)	%	−1.649	1.084***	1.013***	4.305	5.597	287
All targets							
Advisor geographical presence							
International diversification	—	0.747	1.207	1.332	1.682	0.646	1,705
d(Global top 5)	0/1	0.000	0.269	0.000	1.000	0.443	1,705
Target-country focus	—	0.009	0.289	0.123	0.541	0.325	1,705
Bidder-country focus	—	0.001	0.194	0.038	0.325	0.280	1,705
Deal returns							
Bidder CAR (−1, +1)	%	−2.052	0.848***	0.400***	3.578	6.060	1,705

Notes. This table presents (i) summary statistics on variables capturing geographical presence, global ranking, bidder-country/target-country focus of all bidder advisors in the sample and (ii) summary statistics on bidder outcome (CAR, relative gain) and combined deal outcome (synergy CAR). Summary statistics for the sample of listed targets are provided in the upper panel and are provided for the full sample (listed and unlisted targets) in the lower panel. We assess whether mean or median deal returns equal 0. N is the number of observations.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

For our calculations we use only the completed deals (which satisfy the five criteria). Only completed deals are relevant when calculating the international diversification of the advisor, because from the bidders' perspective it is the set of completed deals rather than the withdrawn ones that matter most when selecting a specific degree of diversification in an advisor.¹⁴ As in Rau (2000), advisors receive full credit only for deals in which they provide services to the bidder and not to the target. Advisors also receive full credit for deals in which bidders engage multiple advisors. We further base our international diversification measure on the advisors' ultimate parents. To avoid misclassification, we account for all mergers and acquisitions among advising banks during our sample period.¹⁵

Figure 1 plots the time-series variation in the international diversification measure of advisors in our sample. (Tables A.2 and A.3 in the online appendix provide international diversification by country and by bank.) Although the average international diversification of advisors in our sample is relatively constant over the 16 years, at the deal level the average international diversification measure has more than doubled from approximately 0.85 in 1990 to approximately 1.78 in 2003, before declining to approximately 1.4 in the 2004–2005 period. The higher level of international diversification at the deal level suggests that internationally diversified advisors are more often hired by bidders in our sample. This can also be seen from Figure 2, where we plot the fraction of all deals in a given year (by total deal value) that is advised by advisors in a given international diversification tercile. The share of all cross-border deals advised by advisors in the highest international diversification tercile has grown from close to 0% to approximately 90% in 2003 before declining to approximately 40%–50% in 2004–2005. So over time, bidders in our sample exhibit a tendency to pick more diversified advisors. However, from Figures 3 and 4, we also see that there is a general tendency among advisors in our sample to increase their level of international diversification. The average international diversification of top-tier advisors (top five by

Figure 1. (Color online) Average International Diversification at the Beginning of the Year

Figure 2. (Color online) Percentage of Total Deal Value Advised by Advisors in Different International Diversification Terciles

total value of deals advised globally) at the beginning of year t (Figure 3) has increased steadily, from approximately 0.90 in 1990 to approximately 1.7 in 2005, peaking in 2003 at 2. The growth in the international diversification level of non-top-tier advisors over the same period is less stark (Figure 4).

In addition to *International diversification*, we create a dummy, i.e., $d(\text{Global top 5})$, which equals 1 for advisors that belong to the global-top-five advisors, and equals 0 otherwise. We use the same procedure for the classification of a global-top-five advisor as for our international diversification measure. That is, we calculate the market share of an advisor's ultimate parent based on the value of deals completed by the parent advisor relative to all completed deals reported by the SDC per year. We classify an advisor as a global-top-five advisor when its parent belongs to the top five in terms of market share during the year before the cross-border M&A announcement: 27% of all deals are advised by global-top-five advisors.¹⁶

Finally, we define an advisor's *Target-country focus* (*Bidder-country focus*) as the ratio of the value of advised

Figure 3. (Color online) Average International Diversification of Top-Five Advisors at the Beginning of Each Year (by Total Value of Deals Advised Globally in Year t)

Figure 4. (Color online) Average International Diversification of Non-Top-Five Advisors at the Beginning of Each Year (by Total Value of Deals Advised Globally in Year t)

deals that take place in the target country (bidder country) and the total value of deals the advisor advised (across all countries) during two years before the year of the cross-border M&A announcement.¹⁷ The average (median) target-country focus for all deals equals 0.29 (0.12) with a standard deviation of 0.33. For bidder-country focus, the average (median) equals 0.19 (0.04) with a standard deviation of 0.28.

2.3. Deal Returns and Other Outcomes

We want to assess the effect of the bidder advisor's international diversification on deal outcomes, especially the bidder valuation. To do so, we calculate the bidders' stock price reactions in a three-day window, i.e., from day -1 to day $+1$ relative to the deal announcement date. We use the market model with the bidder country's market index to calculate the bidder cumulative abnormal returns (*Bidder CARs*). The estimation window runs from 110 until 10 days before the deal announcement. To make sure that outliers do not influence our results, we winsorize CARs at the 1st and 99th percentiles (the 1st percentile threshold equals -18.1% and the 99th percentile threshold equals 22.1%). Table 2 shows that the average (median) three-day bidder CAR of all 415 listed-target deals is -0.61% (-0.44%) with a standard deviation of 6.12% . For the full sample of 1,705 deals (which includes deals involving listed and unlisted targets) the average (median) three-day bidder CAR is 0.85% (0.40%) with a standard deviation of 6.06% .

In addition to the bidder CARs, we also calculate *Synergy CARs* and *Bidder relative gains*. Synergy CARs (or synergy gain) is the market value of the equity-weighted sum of the bidder's and the target's percentage CAR. Bidder relative gain is the bidder's share of synergy gain, which is calculated following Golubov et al. (2012). If the synergy gain is positive, the bidder relative gain equals the bidder dollar-denominated gain divided by the synergy gain. If the synergy gain is negative, the bidder relative gain equals 1 minus the

bidder dollar-denominated gain divided by the synergy gain. The synergy CARs and the bidder relative gains are consistently positive and statistically significant (at the 1% level).

To examine the impact of the advisor's international diversification on the bidder announcement return, we sort deals into terciles based on the level of international diversification of the bidder advisor. From Table 3 we see that the abnormal returns are largest for advisors with the lowest level of international diversification, i.e., those in the first tercile. From the first to the third tercile we find a statistically significant decrease in the average (median) CAR of 1.61% (1.01%) for listed targets and 0.81% (0.32%) for all targets. In Table 3 we also report the standardized three-day bidder CARs. Following Boehmer et al. (1991) the standardized bidder CAR is the bidder CAR ($-1, +1$) scaled by the standard deviation of the bidder abnormal returns in the estimation period times the square root of the length of the event window (three days). The standard deviation of bidder abnormal returns is estimated over the estimation period ($-110, -10$). By standardizing the bidder CAR we take into account the fact that the return volatilities of the bidders in our sample may be quite different from one another. Our findings from using the standardized bidder CARs are, however, qualitatively similar to those from using the nonstandardized bidder CARs.

The preliminary evidence is thus consistent with the conflicts-of-interest hypothesis and will be confirmed by the multivariate analysis we report later. Similarly calculated, the synergy CARs and the bidder relative gains decrease with the degree of international diversification of the advisors, but neither change is statistically significant. We note that the number of observations for synergy returns and bidder relative gains further drops, because the estimation of these returns requires both bidders and targets to be listed and to have available stock price information.

3. Bidder/Deal Characteristics and Advisor International Diversification

Since advisors are chosen by bidders based on their firm characteristics as well as the characteristics of the deal, we start out by examining the relation between the various bidder/deal characteristics and the international diversification of their advisors. In Table 4, we regress advisors' international diversification on bidder characteristics (bidder size, free cash flow, Tobin's Q , merger experience in the country of the target), deal characteristics (target listing status, method of payment, industry-relatedness of bidder and target, relative transaction size, deal complexity, number of SICs the target operates in), and the intensity of the merger market in the bidder country and the target country

Table 3. Bidder CARs and Gains by International Diversification Tercile

Panel A										
	Listed targets					All targets				
	Obs.	Bidder CAR (−1, +1) (%)		Standardized bidder CAR (−1, +1) (%)		Obs.	Bidder CAR (−1, +1) (%)		Standardized bidder CAR (−1, +1) (%)	
		Mean	Median	Mean	Median		Mean	Median	Mean	Median
First tercile	116	0.596	0.268	22.749	9.950	571	1.380***	0.731***	38.792***	22.638***
Second tercile	149	−1.143**	−0.727**	−26.661**	−22.632**	569	0.595**	0.160*	15.449**	4.679*
Third tercile	150	−1.011**	−0.738*	−32.195**	−23.287**	565	0.566**	0.411**	11.194*	13.129**
Difference first and third tercile		1.607**	1.006*	54.944***	33.237**		0.814**	0.320**	27.598***	9.509**

Panel B					
	Listed targets				
	Obs.	Synergy CAR (%)		Bidder relative gain (−1, +1) (%)	
		Mean	Median	Mean	Median
First tercile	70	1.865***	2.080***	32.092	12.102**
Second tercile	98	0.608	1.092	32.287***	10.164***
Third tercile	119	1.017**	0.648**	13.984	2.293
Difference first and third tercile		0.848	1.432	18.108	9.809

Notes. Panel A presents the mean and median bidder CAR (−1, +1) and the standardized bidder CAR (−1, +1) for subsamples based on the bidder advisor's international diversification. The standardized bidder CAR is the bidder CAR (−1, +1) scaled by the standard deviation of the bidder abnormal return in the estimation period times the square root of the length of the event window (three days). For the sample of deals involving listed targets, panel B presents (i) the synergy CAR (%), which is the combined CAR of the bidder and the target, and (ii) bidder relative gains (−1, +1).

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

in the years leading up to the cross-border deal. The regression also includes dummies for the top 10 bidder and target countries in our sample, industry, and year dummies.

Across all the different models in Table 4, we see that larger bidders and bidders with higher free cash flow hire advisors with a greater level of international diversification. To the extent that larger bidders are also likely to do more complex deals, the choice of advisors with higher levels of international diversification could be an indication of the need for greater skills. Alternatively, if internationally diversified advisors are less likely to pay close attention to the deal, these findings may be in line with an agency story wherein large bidders with free cash flows self-select internationally diversified advisors in an attempt to pursue their own agenda at the cost of shareholders.

In terms of deal characteristics, we see that complex deals tend to attract more internationally diversified advisors,¹⁸ again suggesting that such advisors may possess greater skills. There is also a positive relation between the relative transaction size and the international diversification of the advisor chosen, although this relation is limited to the subsample of deals involving listed targets. Finally, a strong merger market in the bidder country in the two years leading up to the deal is related to the choice of less diversified advisors.

In addition to these observable bidder/deal characteristics, the choice of advisors may also be impacted by unobservable factors. As a way of capturing such unobservable factors, we include two indicator variables, *Retain* and *Switch*, in models (2)–(5) and (7)–(10) in Table 4. The indicator variable *Retain* is set equal to 1 if the current advisor was engaged by the bidder in the past five years for merger advice, and equal to 0 otherwise. Similarly, the indicator variable *Switch* is set equal to 1 if the bidder had hired an advisor or advisors different from the current advisor for merger advice in the past five years, and equal to 0 otherwise.¹⁹ From models (2) and (3), and also (6) and (7), we see that advisors retained by bidders tend to have higher levels of international diversification relative to the base category bidders that hire an advisor for the first time in the past five years. To the extent that international diversification may be indicative of superior advisory skills, the unobservable bidder/deal specific factors that contribute to the retention of past advisors could be related to the need for great skills due to the complexity of the deal. We will therefore include the indicator variables *Retain* and *Switch* in all our later analysis to capture such unobservable factors.

Note, however, that the inclusion of *Scope* as a control variable in models (4) and (9) takes away the significance on the coefficient of the *Retain* dummy. As in Golubov et al. (2012), the variable *Scope* measures the

Table 4. Bidder/Deal Characteristics and Bidder Advisor International Diversification

Sample	Listed targets					All targets				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>d(Retain previous advisor)</i>		0.278** (0.106)	0.269** (0.109)	0.115 (0.119)	0.251** (0.116)		0.160*** (0.051)	0.165*** (0.052)	0.014 (0.072)	0.165*** (0.053)
<i>d(Switch to new advisor)</i>		0.021 (0.094)	0.024 (0.094)	0.030 (0.099)	0.053 (0.095)		0.066 (0.040)	0.069* (0.040)	0.072* (0.040)	0.090** (0.040)
<i>Scope</i>				0.124*** (0.039)					0.129*** (0.033)	
<i>Avg. international diversification of advisors hired in past two years</i>					0.276*** (0.056)					0.343*** (0.034)
<i>Bidder MV of assets</i>	1.678 (1.578)	0.944 (1.597)	1.047 (1.539)	1.124 (1.584)	0.024 (1.190)	2.585*** (0.790)	2.271*** (0.762)	2.238*** (0.769)	2.248*** (0.746)	1.633** (0.793)
<i>Bidder MV of assets squared</i>	−1.304 (2.074)	−0.518 (2.099)	−0.662 (2.010)	−0.647 (2.076)	0.740 (1.568)	−2.512** (1.198)	−2.140* (1.071)	−2.116* (1.086)	−2.052* (1.085)	−1.265 (1.121)
<i>d(Large bidder)</i>	0.179*** (0.061)	0.157*** (0.055)	0.150*** (0.052)	0.149*** (0.049)	0.165*** (0.044)	0.091** (0.043)	0.082* (0.043)	0.091** (0.042)	0.082* (0.043)	0.082* (0.043)
<i>Bidder Tobin's Q</i>	0.001 (0.017)	0.004 (0.018)	0.003 (0.017)	0.004 (0.017)	0.007 (0.018)	−0.013* (0.007)	−0.013* (0.007)	−0.012* (0.007)	−0.012* (0.007)	−0.010 (0.007)
<i>Bidder free cash flow/Assets</i>	1.494* (0.779)	1.563* (0.818)	1.558* (0.845)	1.557* (0.886)	1.630* (0.926)	0.573** (0.216)	0.597*** (0.223)	0.564** (0.222)	0.560** (0.217)	0.578*** (0.213)
<i>d(Bidder acquisition experience in target country)</i>	0.067 (0.051)	0.008 (0.048)	0.015 (0.051)	0.020 (0.050)	0.010 (0.049)	0.039 (0.026)	0.003 (0.024)	−0.003 (0.024)	−0.002 (0.024)	0.002 (0.023)
<i>d(Target is listed)</i>						−0.012 (0.049)	−0.025 (0.047)	−0.036 (0.049)	−0.039 (0.048)	−0.036 (0.051)
<i>Relative transaction size</i>	0.330*** (0.102)	0.389*** (0.090)	0.402*** (0.097)	0.373*** (0.096)	0.432*** (0.083)	−0.205* (0.118)	−0.151 (0.112)	−0.141 (0.110)	−0.157 (0.109)	−0.114 (0.106)
<i>d(Stock payment)</i>	0.055 (0.144)	0.110 (0.136)	0.096 (0.139)	0.100 (0.138)	0.098 (0.148)	0.139 (0.089)	0.144* (0.085)	0.151* (0.086)	0.154* (0.085)	0.142 (0.089)
<i>Percent of cash offered</i>	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
<i>d(Tender offer)</i>	0.021 (0.078)	0.032 (0.070)	0.035 (0.074)	0.045 (0.077)	0.041 (0.073)	0.067 (0.051)	0.076 (0.050)	0.081 (0.051)	0.087* (0.050)	0.083 (0.050)
<i>d(Complex deal)</i>	0.122*** (0.043)	0.118** (0.049)	0.128** (0.049)	0.116** (0.049)	0.115** (0.049)	0.119** (0.049)	0.117** (0.050)	0.119** (0.050)	0.109** (0.049)	0.119** (0.050)
<i>d(Related acquisition)</i>	0.017 (0.088)	0.016 (0.087)	0.009 (0.091)	−0.001 (0.093)	0.009 (0.092)	0.083** (0.031)	0.084** (0.032)	0.078** (0.033)	0.075** (0.033)	0.083** (0.031)
<i>ln(1 + No. of SIC codes of target)</i>	0.029 (0.045)	0.011 (0.050)	0.017 (0.056)	0.022 (0.055)	0.025 (0.056)	0.016 (0.031)	0.013 (0.031)	0.022 (0.034)	0.019 (0.034)	0.017 (0.033)
<i>d(Target hires advisor)</i>	−0.024 (0.134)	−0.055 (0.125)	−0.060 (0.127)	−0.069 (0.135)	−0.070 (0.138)	0.030 (0.032)	0.031 (0.031)	0.035 (0.031)	0.029 (0.030)	0.030 (0.030)
<i>(Log) Total value of deals initiated by bidders from bidder country (past two years)</i>			−0.174*** (0.034)	−0.177*** (0.032)	−0.190*** (0.032)			−0.159*** (0.031)	−0.148*** (0.035)	−0.163*** (0.029)
<i>(Log) Total value of deals in target country (past two years)</i>			0.003 (0.052)	0.004 (0.052)	0.012 (0.050)			0.021 (0.019)	0.017 (0.019)	0.021 (0.018)
Constant	0.350 (0.280)	0.284 (0.271)	0.227 (0.391)	0.249 (0.393)	−0.071 (0.396)	0.579** (0.234)	0.511** (0.237)	0.601** (0.270)	0.575** (0.252)	0.291 (0.265)
Top 10 target and top 10 bidder country, year, and industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	415	415	413	413	413	1,705	1,705	1,692	1,692	1,692
Adjusted R-squared	0.110	0.137	0.133	0.140	0.158	0.139	0.146	0.147	0.155	0.183

Notes. This table presents the results from ordinary least squares regressions of the bidder advisor international diversification (dependent variable) on the included independent variables. The estimated coefficients are in the first row, and the Huber–White standard errors clustered by target country are in parentheses. MV, market value.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

extent to which the bidder used its current advisor for its previous capital market transactions in the past five years including debt/equity issue and merger advice.²⁰ This finding suggests that the decision to retain a past advisor is influenced significantly by the intensity of the past relationship between the bidder and the advisor rather than by unobserved factors.

Finally, we note from models (5) and (10) that the (average) international diversification of the previous advisors is related to the international diversification of the current advisor. Since the diversification of the past advisors does not directly impact the outcome of deals in our sample other than through its relation to the international diversification of the current advisor(s),²¹ we have a potential instrument that we will use in §4 to address the endogeneity issue.

4. Advisor International Diversification and Bidder Returns

4.1. Main Regression Results

We want to investigate the influence of advisor diversification across countries on bidder returns and test whether more internationally diversified advisors have greater agency problems with the bidder (conflicts-of-interest hypothesis) or whether they are able to offer superior advice owing to their greater experience in different target countries (superior-experience hypothesis).

Table 5 reports the estimated coefficients and heteroskedasticity-consistent standard errors following Huber (1967) and White (1980) (henceforth, Huber–White) from ordinary least squares regressions of the cumulative abnormal returns (CARs) over the three days around the cross-border deal announcements. The standard errors are clustered by target country. Advisor international diversification is featured as the main independent variable in all but a few estimated models. We first explore its net effect, but we then by means of interactions with informative advisor–deal variables explore the circumstances under which the two hypotheses apply.

In Table 5 we report the same set of regressions for the full sample as well as for the subsample with listed targets for two reasons: first, subsequent analyses requires information that is only available for deals with listed targets (e.g., synergy gains). Second, the need for country-specific skills and experience may be particularly acute when dealing with publicly listed firms. Indeed, although publicly listed firms are likely to be more transparent than privately held ones (in a hard-information sense), acquisitions of publicly listed firms may still demand more skill and effort (Golubov et al. 2012) (as well as more soft information) on the part of the advisors than acquisitions of privately held firms, because of (1) the greater bargaining

power that public firms wield; (2) the complex regulatory and/or shareholder approval process (which may include fighting antitakeover defenses); and, last but not least, (3) the problems for bidders in obtaining any postdeal court compensation for undisclosed or hidden obligations of publicly listed targets because of their dispersed ownership.

The consequence of a greater need for advisor skills, experience, and effort when acquiring foreign listed targets is an empirical question. On the one hand, if more internationally diversified advisors have greater experience and ability to deliver more valuable advice, then the focus on listed targets could reinforce a positive impact of international diversification on bidder returns. On the other hand, if more diversified advisors are less concerned about their reputation and therefore put less effort into their advice, the requirement of greater skills and effort for publicly listed deals may deteriorate their advice.

The independent variables in models (1) (subsample of listed targets) and (8) (full sample, all targets) in Table 5 are *International diversification* and dummies for country (we include dummies for the top 10 target and top 10 bidder countries), year, and industry. We also add deal, target, and bidder characteristics. As in Moeller and Schlingemann (2005), we include bidder size, bidder Tobin's Q, bidder free cash flow/assets, bidder merger experience, relative transaction size, and form of payment and dummies for deal complexity, target listing status, tender offer, and industry relatedness of the target. Through the inclusion of the bidders' size, Tobin's Q, free cash flow, and merger experience, we account for bidder-related factors that might be related to their announcement CARs around acquisitions. Bidders with high Tobin's Q or free cash flow may seek advisors that simply execute deals, rather than also advise on deals, because such bidders possess the necessary skills and experience to do so (or, alternatively, they are driven by empire building motives).²²

In line with the conflicts-of-interest hypothesis, we find that the estimated coefficient on international diversification in model (1) in Table 5 equals -0.0163^{**} , which is statistically significant at the 5% level.²³ After controlling for various bidder and deal characteristics that could also impact the bidder announcement CARs, the estimated coefficient on international diversification in model (2) in Table 5 equals -0.0145^{**} . The estimate is also economically relevant. An increase of one standard deviation in diversification decreases bidder CAR by 92 bps ($= 0.637 \times 0.0145$), implying a large semielasticity of 151% ($= 0.0092/0.0061$) or, when scaled by the standard deviation, an increase of 15% ($= 0.0092/0.0612$). In dollar terms, with an average bidder's market value of equity of \$10.4 billion, a 92 bps drop reflects a loss of \$96 million in the equity of the bidders around the cross-border deal announcements.

Table 5. Bidder Advisor International Diversification and Bidder CAR

Sample	Listed targets							All targets						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
<i>International diversification</i>	–0.016** (0.007)	–0.014** (0.007)	–0.020** (0.009)	–0.013* (0.007)	–0.101** (0.040)	–0.013** (0.006)	–0.006 (0.004)	–0.007** (0.003)	–0.006** (0.003)	–0.006** (0.003)	–0.006** (0.003)	–0.070** (0.020)	–0.006** (0.003)	
<i>International diversification squared</i>					0.093** (0.038)							0.079** (0.020)		
<i>International diversification to third power</i>					–0.026** (0.011)							–0.024** (0.006)		
<i>d(Global top 5)</i>		–0.012*** (0.004)	–0.012*** (0.004)	–0.012*** (0.003)	–0.011** (0.004)	–0.006 (0.005)	–0.006 (0.004)	–0.004 (0.003)	–0.004 (0.003)	–0.004 (0.003)	–0.004* (0.002)	–0.005* (0.003)	–0.002 (0.003)	–0.002 (0.003)
<i>Bidder nation focus in the past two years</i>			–0.019 (0.015)							–0.001 (0.007)				
<i>Target nation focus in the past two years</i>			–0.023 (0.017)							0.001 (0.007)				
<i>(Log) Total value of deals initiated by bidders from bidder country (past two years)</i>				0.018* (0.010)							0.012* (0.007)			
<i>(Log) Total value of deals in target country (past two years)</i>				0.023** (0.009)							–0.000 (0.003)			
<i>Fraction of all acquisitions in target nation in the past two years that were advised</i>				–0.070** (0.034)							–0.008 (0.008)			
<i>d(Investment bank)</i>						–0.020 (0.015)	–0.008 (0.033)				–0.004* (0.002)			0.002 (0.008)
<i>International diversification × d(Investment bank)</i>							–0.017** (0.005)							–0.009* (0.004)
<i>International diversification × d(Noninvestment bank)</i>							–0.006 (0.014)							–0.003 (0.004)
<i>Bidder MV of assets</i>	0.162 (0.150)	0.175 (0.148)	0.187 (0.146)	0.154 (0.171)	0.174 (0.146)	0.221* (0.121)	0.226* (0.125)	–0.013 (0.051)	–0.012 (0.052)	–0.012 (0.051)	–0.020 (0.054)	–0.027 (0.054)	–0.007 (0.050)	–0.008 (0.048)
<i>Bidder MV of assets squared</i>	–0.254 (0.210)	–0.259 (0.211)	–0.275 (0.206)	–0.217 (0.238)	–0.246 (0.216)	–0.315* (0.172)	–0.319* (0.176)	0.022 (0.093)	0.023 (0.094)	0.024 (0.092)	0.037 (0.096)	0.063 (0.101)	0.017 (0.092)	0.022 (0.089)
<i>d(Large bidder)</i>	–0.012 (0.009)	–0.012 (0.009)	–0.012 (0.009)	–0.013 (0.010)	–0.013 (0.008)	–0.012 (0.009)	–0.012 (0.008)	–0.007** (0.003)	–0.007** (0.003)	–0.007** (0.003)	–0.006** (0.003)	–0.006** (0.003)	–0.006** (0.003)	–0.006** (0.003)
<i>Bidder Tobin's Q</i>	0.003 (0.002)	0.003* (0.002)	0.003 (0.002)	0.003 (0.002)	0.003* (0.002)	0.003* (0.002)	0.003* (0.002)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
<i>Bidder free cash flow/Assets</i>	0.034 (0.085)	0.040 (0.083)	0.037 (0.081)	0.025 (0.083)	0.050 (0.087)	0.030 (0.087)	0.027 (0.082)	–0.009 (0.027)	–0.008 (0.027)	–0.008 (0.027)	–0.008 (0.029)	–0.013 (0.026)	–0.008 (0.028)	–0.009 (0.027)
<i>d(Bidder acquisition experience in target country)</i>	–0.003 (0.007)	–0.004 (0.007)	–0.003 (0.007)	–0.003 (0.008)	–0.004 (0.007)	–0.002 (0.007)	–0.003 (0.007)	–0.003 (0.003)	–0.004 (0.003)	–0.004 (0.003)	–0.002 (0.003)	–0.003 (0.003)	–0.003 (0.003)	–0.003 (0.003)

Table 5. (Continued)

Sample	Listed targets							All targets						
Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
<i>d(Retain previous advisor)</i>								−0.030*** (0.006)	−0.030*** (0.006)	−0.030*** (0.005)	−0.030*** (0.005)	−0.031*** (0.006)	−0.029*** (0.006)	−0.029*** (0.006)
<i>d(Switch to new advisor)</i>	−0.016 (0.019)	−0.016 (0.020)	−0.016 (0.021)	−0.023 (0.019)	−0.012 (0.020)	−0.017 (0.020)	−0.018 (0.019)	0.023* (0.012)	0.023* (0.012)	0.023* (0.012)	0.024* (0.014)	0.026** (0.012)	0.023* (0.012)	0.023* (0.012)
<i>d(Target is listed)</i>	−0.014 (0.011)	−0.014 (0.011)	−0.015 (0.012)	−0.011 (0.011)	−0.013 (0.011)	−0.012 (0.011)	−0.012 (0.010)	0.001 (0.007)	0.001 (0.007)	0.001 (0.007)	0.002 (0.008)	−0.001 (0.007)	0.001 (0.007)	0.001 (0.007)
<i>d(Stock payment)</i>	0.000 (0.000)	0.000* (0.000)	0.000 (0.000)	0.000 (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000 (0.000)	0.000* (0.000)	0.000* (0.000)
<i>Percent of cash offered</i>	0.010 (0.006)	0.009 (0.006)	0.010 (0.006)	0.010* (0.006)	0.010* (0.006)	0.009 (0.006)	0.008 (0.006)	0.015*** (0.006)	0.015*** (0.005)	0.015*** (0.005)	0.016*** (0.005)	0.016*** (0.006)	0.015*** (0.006)	0.015*** (0.006)
<i>d(Tender offer)</i>	−0.005 (0.005)	−0.004 (0.005)	−0.004 (0.005)	−0.003 (0.005)	−0.004 (0.005)	−0.005 (0.005)	−0.005 (0.005)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.004 (0.003)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)
<i>d(Related acquisition)</i>	−0.005 (0.005)	−0.005 (0.005)	−0.005 (0.005)	−0.004 (0.004)	−0.004 (0.005)	−0.004 (0.005)	−0.004 (0.005)	−0.003 (0.003)	−0.002 (0.003)	−0.002 (0.003)	−0.003 (0.003)	−0.002 (0.003)	−0.002 (0.003)	−0.002 (0.003)
<i>d(Complex deal)</i>	0.007* (0.004)	0.007 (0.004)	0.007 (0.004)	0.009** (0.004)	0.007 (0.004)	0.006 (0.004)	0.006 (0.004)	−0.000 (0.003)	0.000 (0.003)	0.000 (0.003)	0.001 (0.003)	−0.000 (0.003)	0.000 (0.003)	−0.000 (0.003)
<i>Relative transaction size</i>	−0.018 (0.014)	−0.018 (0.014)	−0.018 (0.014)	−0.020 (0.014)	−0.016 (0.014)	−0.015 (0.015)	−0.014 (0.014)	0.004 (0.002)	0.004 (0.002)	0.004 (0.002)	0.003 (0.002)	0.004* (0.002)	0.004* (0.002)	0.004* (0.002)
<i>d(Target hires advisor)</i>	0.012 (0.011)	0.013 (0.011)	0.013 (0.011)	0.013 (0.012)	0.013 (0.009)	0.012 (0.009)	0.012 (0.009)	−0.001 (0.002)	−0.001 (0.002)	−0.001 (0.002)	−0.002 (0.003)	−0.001 (0.002)	−0.001 (0.002)	−0.001 (0.002)
<i>ln(1 + No. of SIC codes of target)</i>	0.006 (0.006)	0.008 (0.006)	0.007 (0.005)	0.009 (0.006)	0.009 (0.006)	0.006 (0.005)	0.007 (0.006)	−0.002 (0.002)	−0.002 (0.002)	−0.002 (0.002)	−0.002 (0.002)	−0.002 (0.002)	−0.002 (0.002)	−0.002 (0.002)
Constant	−0.004 (0.023)	−0.007 (0.022)	0.002 (0.023)	0.154** (0.072)	0.003 (0.020)	0.009 (0.026)	−0.002 (0.036)	−0.027* (0.014)	−0.027** (0.014)	−0.027* (0.014)	−0.011 (0.028)	−0.017 (0.014)	−0.026* (0.014)	−0.028* (0.015)
Top 10 target and top 10 bidder country, year, and industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	415	415	415	397	415	415	415	1,705	1,705	1,705	1,590	1,705	1,705	1,705
Adjusted R-squared	0.006	0.011	0.011	0.010	0.018	0.026	0.026	0.036	0.036	0.035	0.036	0.045	0.037	0.037

Notes. This table presents the results from ordinary least squares regressions of the three-day (−1, +1) bidder cumulative abnormal returns (dependent variable) on the included independent variables. The estimated coefficients are in the first row, and the Huber–White standard errors clustered by target country are in parentheses. MV, market value.
***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

When focusing on the full sample in model (8) or (9), the negative international diversification coefficient is approximately half the size of that of the listed targets subsample (equal to -0.0066^{**}) and is also statistically significant at a 5% level.²⁴ From models (5) and (12) we see that the effect of international diversification on bidder CARs is nonlinear. The coefficient on the second power of international diversification is positive and significant whereas that on the third power of international diversification is negative and significant.²⁵

Because many previous empirical studies find a negative impact of a bidder advisor's market share on the bidder's abnormal returns (e.g., Rau 2000, Bao and Edmans 2011; Golubov et al. 2012, on the other hand, find a positive impact), an alternative explanation for our findings is that the negative effect of an advisor's international diversification is an artifact of the negative influence of its global market share. We hence control for the advisor's global standing (in models (2)–(7) and (8)–(14)) by including a dummy variable that is set equal to 1 if it belongs to the global top five by total value of the deal advised at the beginning of the year. Hence, the effects of international diversification that we capture are after controlling for the effects of having a top-tier advisor that, because of their prominent standing, may be able to milk their reputation without expending effort to provide valuable advice to their clients.

So far, we have shown that advisor choice affects deal value. Bidders that select advisors that are geographically concentrated benefit most. This result prompts the question of which type of concentration benefits bidders most. Since the benefits of geographical concentration are the advisor's country-specific skills and experience, we expect a focus on the target or bidder country to have a positive impact on the bidder's returns. This line of reasoning corroborates the results of Benou et al. (2007), who find that top-tier advisors active in the region of foreign high-tech targets positively influence bidders' announcement returns. In models (3) and (10) we include proxies for bidder and target-country focus and find that they do not load significantly and that their inclusion does not impact the significance of the coefficient on international diversification.²⁶

From models (4) and (11) in Table 5 we see that our findings are also robust to controlling for the intensity of the merger market in the bidder/target country at the time of the deal (measured as (the logarithm of) the sum of the deal values of all M&A transactions involving bidders (targets) that are from the current bidder (target) country in the two years before the cross-border deal). In models (4) and (11), as a proxy for the target-country-specific deal complexity, we include the following control: the sum of the deal values of all M&A transactions involving a target firm in the current

target country for which the bidder hired an advisor (in the two years before the cross-border deal) divided by the sum of the deal values of all M&A transactions where the target firm belonged to the current target country (in the two years before the cross-border deal). Our results are not affected by the inclusion of this control.

Finally, we distinguish between whether the advisor is an investment bank or is another organizational type. Because of the mix of lending and other cross-selling activities, commercial banks may have additional information about targets or bidders when compared to investment banks (Allen et al. 2004, Schenone 2010). As a consequence, advice from investment banks might not be as valuable as that from other advisors. Moreover, being less informed about the bidder and/or target could potentially reinforce the negative impact of international diversification on bidder returns. We investigate this issue (1) by adding an investment bank dummy to our baseline regressions (models (6) and (13)) and (2) by conditioning international diversification on whether the advisor is an investment bank or has another organizational type (models (7) and (14)). Models (6) and (13) show lower abnormal returns for deals where bidders engage an investment bank. This negative effect is only significant for the full sample (-43 bps). Models (7) and (14), however, suggest that international diversification drives this negative investment bank effect.

4.2. Alternative Measures of Diversification and Advisor Fixed Effects

To examine the robustness of our results to alternative dimensions of the bidder advisor's business model, we include a measure of their industry diversification,²⁷ in addition to their international diversification. From models (2) and (8) in Table 6, the inclusion of industry diversification does not impact the significance on the international diversification measure. Next, we exploit the time-series nature of our data set on the international diversification of advisors and examine the relation between the change in international diversification of advisors and bidder announcement CARs. From models (4) and (10) in Table 6 we see that an increase of one standard deviation in the change measure of international diversification results in a 48 bps ($= 0.485 \times -0.0098$) lower abnormal return for bidders in our full sample and a 95 bps ($= 0.486 \times -0.0197$) lower abnormal return for bidders in our listed target subsample. This finding suggests that advisors that have recently expanded to new geographic regions are more likely to provide inferior advice.

Finally, we examine the extent to which our findings are impacted by fixed effects attributable to advisors as documented by Bao and Edmans (2011). In models (5), (6), (11), and (12) we include fixed effects for all the

Table 6. Time-Series Variation in Bidder Advisor International Diversification and Bidder CAR

Sample	Listed targets						All targets					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Model					With advisor fixed effects						With advisor fixed effects	
<i>International diversification</i>	−0.014** (0.007)	−0.015*** (0.005)			−0.028** (0.011)	−0.031** (0.012)	−0.006** (0.003)	−0.007** (0.003)			−0.005 (0.005)	−0.008 (0.005)
<i>Industry diversification</i>		0.001 (0.009)				0.016 (0.011)		0.001 (0.002)				0.007* (0.004)
<i>Change in international diversification</i>			−0.017*** (0.004)	−0.020*** (0.005)					−0.009*** (0.002)	−0.010*** (0.002)		
<i>Change in industry diversification</i>				0.010 (0.006)						0.003 (0.002)		
Top 10 target and top 10 bidder country, year, and industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bidder advisor fixed effects	No	No	No	No	Yes	Yes	No	No	No	No	Yes	Yes
Observations	415	415	409	409	391	391	1,705	1,705	1,641	1,641	1,623	1,623
Adjusted R-squared	0.011	0.009	0.010	0.013	0.040	0.044	0.036	0.036	0.035	0.035	0.033	0.033

Notes. This table presents the results from ordinary least squares regressions of the three-day (−1, +1) bidder cumulative abnormal returns (dependent variable) on the full set of explanatory variables included in model (2) of Table 5. To save space, only the coefficients on the main explanatory variables are presented in the table. The estimated coefficients are in the first row, and the Huber–White standard errors clustered by target country are in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

parent advisors in our sample.²⁸ The inclusion of advisor fixed effects does not impact our findings in the listed target subsample; the coefficient on the international diversification measure in fact increases in magnitude to −0.0312**. However, the significance on the international diversification measure disappears in the full sample with the inclusion of advisor fixed effects (maybe because of a lack of variation across time for that set of advisors).

In sum, our findings indicate that in our cross section of cross-border M&A deals, the costs of diversified international experience exceed its benefits, resulting in a negative net effect for the value of M&A advice. This negative effect is most prevalent when internationally diversified investment banks are engaged. Next, we address the endogeneity concerns in our findings.

4.3. Accounting for Endogenous Advisor Choice

One major concern in examining the role of advisors in influencing the merger outcome of bidders is that unobservable factors related to bidders' choice of advisors may also have an impact on their CARs. As an example, bidders pursuing complex deals may choose more internationally diversified advisors or top-tier advisors. To the extent that we are not able to adequately control for the complexity of the deals, our findings may be confounded by the effects of unobserved deal complexity. We therefore attempt to model the selection process behind the choice of advisors by bidders and incorporate the impact of this selection on

our findings. We follow Golubov et al. (2012) and estimate two selection models where the first-stage equation models the choice of (1) an advisor with a high level of international diversification (top-quartile) and (2) a top-tier advisor. We use a variable, *Scope*, to serve as the identification restriction. The variable *Scope* measures the extent to which the bidder used the services of the advisory firm across various capital market transactions in the past five years (see Endnote 20 or Table A.1).

From the first-stage regression results presented in Table 7, we see that *Scope* is a significant determinant of the choice between a diversified and a less diversified advisor as well as the choice between a top-tier and a non-top-tier advisor, across all target types, which is consistent with Fang (2005). The first-stage results suggest that the extent to which the bidder used the services of a diversified (or top-tier) bank in the past is positively related to the decision to employ the bank again.

Based on the first-stage equation, we construct an inverse Mills ratio that we add as an additional regressor in the second-stage equation. The coefficient on the inverse Mills ratio is positive and significant at the 5% level (coefficient of 0.046) for the subsample of listed targets only (model (2) of Table 7). This suggests that certain observed and unobserved characteristics that increase the likelihood of choosing a top-tier advisor may further increase the observed bidder CARs. To the extent that the unobservable factors increase rather than lower the bidder CARs, this mitigates the concern that the negative relation between the advisors'

Table 7. Bidder Advisor International Diversification and Bidder CAR: Heckman Selection Model

Sample	Listed targets				All targets			
	First stage: <i>d</i> (High international diversification of bidder advisor)	(1)	First stage: <i>d</i> (Top-tier bidder advisor)	(2)	First stage: <i>d</i> (High international diversification of bidder advisor)	(3)	First stage: <i>d</i> (Top-tier bidder advisor)	(4)
<i>Scope</i>	0.361** (0.156)		0.309** (0.139)		0.216** (0.087)		0.348*** (0.072)	
<i>International diversification</i>		−0.014** (0.007)		−0.014* (0.007)		−0.006** (0.003)		−0.006** (0.003)
<i>Inverse Mills ratio</i>		0.014 (0.014)		0.046** (0.022)		−0.001 (0.016)		0.004 (0.011)
Top 10 target and top 10 bidder country, year, and industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	412	412	412	412	1,705	1,705	1,705	1,705
Pseudo <i>R</i> -squared	0.230		0.136		0.186		0.098	
Adjusted <i>R</i> -squared		0.011		0.018		0.036		0.036

Notes. This table presents the results from a Heckman selection model. We follow Golubov et al. (2012) to model the selection of a diversified/top-tier bidder advisor in the first stage. In the first stage we run a probit regression with the dependent variable set equal to 1 if the bidder advisor's international diversification is in the top quartile ($d(\text{High international diversification of bidder advisor}) = 1$) and 0 otherwise. Alternatively, in the first stage we run a probit regression with the dependent variable set equal to 1 if the bidder advisor belongs to the top-tier (top 5 by total value of deal advised globally) and 0 otherwise. In addition to *Scope*, the first stage includes the full set of explanatory variables included in model (1) of Table 5. The second stage consists of an ordinary least squares regression of the three-day (−1, +1) bidder cumulative abnormal returns on the full set of explanatory variables included in model (2) of Table 5 and the inverse Mills ratio constructed from the first stage estimates. To save space, only the coefficients on the main explanatory variables are presented in the table. The estimated coefficients are in the first row, and the Huber–White standard errors clustered by target country are in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

international diversification and bidder CARs is driven by these unobservable factors. The coefficient on international diversification in the second-stage regressions (Table 7, models (1)–(4)) continues to be negative and significant.

As another alternative to the selection model discussed above, we also estimate a two-stage least squares model (2SLS) model. In accordance with Golubov et al. (2012), we base our instrument on bidders' past advisor choice. Specifically, we estimate the average international diversification of all M&A advisors that bidders engaged (both domestic and cross-border, and regardless of the resultant deal characteristics) in the two years before the announcement of the current cross-border deal. For bidders that did not engage an advisor in the two years prior to the deal announcement, an imputed value based on the international diversification of advisors hired by bidders in the same industry (in the two years before the deal announcement) is used.²⁹ As an additional identification specification, we measure international diversification of past advisors conditional on being an investment bank and conditional on not being an investment bank.³⁰

Table 8 reports four two-stage least squares (2SLS) models: models (1) and (2) for the listed targets subsample and models (3) and (4) for the full sample. The results in these models indicate that the previous advisors' international diversification significantly

explains the current advisor's international diversification and that this relation is strongest for international diversification of past investment banks hired.³¹ Although the estimated coefficient on the instrumented diversification variable is negative in all four models, it shows up significantly negative only for the subsample with listed targets. In other words, although we cannot rule out an endogenous relation between international diversification and bidder returns in the full sample, we show that the advice from more internationally diversified advisors leads to lower bidder returns when bidders acquire listed targets.

In addition to explicitly attempting to address the endogeneity concerns as described above in Tables 7 and 8, we also include two controls, *Retain* and *Switch*, in all regressions involving bidder CAR.³² To the extent that the decision to retain a past advisor or switch to a new advisor is related to unobservable deal-related factors, the inclusion of these controls should account for these factors.

4.4. Factors Mitigating the Effects of International Diversification

In this section we investigate factors that might mitigate or exacerbate further the negative effects of international diversification of advisors. According to the conflicts-of-interest hypothesis, the main reason that internationally diversified advisors may not act in the best interest of their clients is their diminished

Table 8. Bidder Advisor International Diversification and Bidder CAR: Two-Stage Least Squares Regressions

Sample	Listed targets				All targets			
	First stage	(1)	First stage	(2)	First stage	(3)	First stage	(4)
<i>International diversification</i>		−0.061* (0.033)		−0.125** (0.064)		−0.001 (0.010)		−0.022 (0.020)
Instrumental variables								
<i>International diversification of previous advisors</i>	0.282*** (0.054)				0.341*** (0.026)			
<i>International diversification of previous advisors × d(Investment bank)</i>			0.129*** (0.035)				0.120*** (0.020)	
<i>International diversification of previous advisors × d(Noninvestment bank)</i>			0.061 (0.053)				0.081*** (0.026)	
Top 10 target and top 10 bidder country, year, and industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	415	415	415	415	1,705	1,705	1,705	1,705
Adjusted R-squared	0.308		0.296		0.246	0.069	0.225	0.049

Notes. This table presents the results from two-stage least squares regressions of the three-day (−1, +1) bidder cumulative abnormal returns on the full set of explanatory variables included in model (2) of Table 5. In the first stage we instrument for the international diversification of the bidder advisor using the average international diversification of the previous advisors hired by the bidder (when missing, using the industry average international diversification). International diversification of previous advisors is the mean value of international diversification of the advisors employed by the bidder in the two years before the cross-border deal. To save space, only the coefficients on the main explanatory variables are presented in the table. The estimated coefficients are in the first row, and the Huber–White standard errors clustered by target country are in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

reputational concerns. Yet, their diminished reputational concerns may be partly offset if, having access to capital, an internationally diversified advisor helps to finance the deal, gets “skin in the game” (because of, for instance, its firm commitment to underwriting), and consequently has a reputation at stake in financial markets (Chemmanur and Fulghieri 1994). We hence investigate how advisors’ involvement in the financing of a deal mediates the effect of their international diversification.

A second factor that might also impact the effects of diminished reputational concerns of internationally diversified advisors is their local market share in the bidder/target country. If the market share of advisors in the bidder/target market is low or if there is scope for advisors to increase their standing in these markets, they might be more inclined to put greater effort into their advice since participation in a deal would bring media attention to them in these local markets. In such a scenario, we would expect a higher market share in the bidder/target country or higher standing (advisor belongs to the top five in the bidder/target country) to further exacerbate the effects of international diversification.

We investigate in Table 9 the effect on bidder return of (1) the financing provided by the advisor and (2) the market share/standing of the advisor in the bidder and target country.

Model (1) adds to the baseline model (2) in Table 5 (which explains the three-day bidder CARs) the dummy $d(\text{Pre- and postannouncement financing})$, which

equals 1 if the advisor assisted the bidder in issuing a syndicated loan, bond, and/or equity shares half a year or less before the deal announcement up to half a year after the effective date, and equals 0 otherwise, and the interaction term $d(\text{Pre- and postannouncement financing}) \times \text{International diversification}$. Of 415 deals, 70 have pre- and postannouncement financing.

We note that a cleaner proxy for an advisor’s skin in the game would be to measure their involvement in financing up to the announcement date instead of half a year after the effective date. However, a reason to incorporate financing postannouncement is that advisors likely know ex ante that they will be involved in financing the bidder after the deal is publicly announced, generating incentives to provide more valuable advice. It may also be already known to market participants on the deal announcement date, though admittedly we are ignoring here the potential reverse effect of bidder returns on the likelihood of a formal announcement of financing afterward. A more practical reason for taking the longer window is that we only have 34 observations with preannouncement financing involvement.

The coefficient on financing equals -0.0686^{***} , implying that financing around the deal decreases the three-day bidder CARs by 686 bps. This finding is most similar to the estimate in Ertugrul and Krishnan (2014), who show that, for deals involving acquirers and targets based in the United States, where advisors are often domestically focused and hence have a low international diversification score, when the acquirer

Table 9. Factors Mitigating the Effect of Bidder Advisor's International Diversification

Sample Model	Listed targets						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Financed fully with cash	Financed mostly with stock				
<i>International diversification</i>	−0.020** (0.008)	−0.016*** (0.005)	−0.048* (0.024)	−0.011 (0.008)	−0.016* (0.009)	−0.009 (0.008)	−0.016* (0.009)
<i>d(Pre- and postannouncement financing)</i>	−0.069*** (0.023)	−0.064 (0.040)	−0.123* (0.059)				
<i>d(Pre- and postannouncement financing) × International diversification</i>	0.046*** (0.015)	0.050** (0.018)	0.053 (0.041)				
<i>Bidder country market share</i>				0.066 (0.076)			
<i>Bidder country market share × International diversification</i>				−0.096 (0.061)			
<i>Target country market share</i>					−0.227** (0.107)		
<i>Target country market share × International diversification</i>					0.106 (0.067)		
<i>Advisor is top five in the bidder country</i>						0.024 (0.018)	
<i>Advisor is top five in the bidder country × International diversification</i>						−0.028** (0.013)	
<i>Advisor is top five in the target country</i>							−0.015 (0.021)
<i>Advisor is top five in the target country × International diversification</i>							0.009 (0.014)
Top 10 target and top 10 bidder country, year, and industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	415	244	99	415	415	415	415
Adjusted R-squared	0.035	0.006	0.097	0.015	0.013	0.028	0.007

Notes. This table presents the results for the sample of listed targets from ordinary least squares regressions of the three-day (−1, +1) bidder cumulative abnormal returns on the full set of explanatory variables included in model (2) of Table 5. To save space, only the coefficients on the main explanatory variables are presented in the table. The estimated coefficients are in the first row, and the Huber–White standard errors clustered by target country are in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

advisor is also the underwriter, the acquirer's value decreases by approximately 500 bps.

One concern with the above finding is that of reverse causality: advisors may step in to support their clients upon observing declining stock prices following the announcement of a deal. However, we note that this kind of ex post reaction from advisors is more likely to happen in deals financed with stock than in cash deals where the advisor participates in financing either through lending money to the bidder or by helping it raise equity to finance the cash payment. In models (2) and (3) of Table 9, we reestimate the effects of deal financing for subsamples of deals that are financed fully with cash and those that are financed mostly with stock. We see that the coefficient on the interaction term *d(Pre- and postannouncement financing) × International diversification* is positive and significant (0.0504**) for the subsample of cash-financed deals, suggesting that reverse causality is not a huge concern. The coefficient

on the interaction term is positive but insignificant for the subsample of deals financed mostly with stock, potentially because of the small sample size (99).

Next, we examine the extent to which the local market position of the advisor in the bidder/target country mediates the effect of their international diversification. In models (4) and (5) of Table 9, we interact the market share of the advisor in the bidder/target country with their international diversification. The findings (in a directional sense) conform with our expectation. We see that the coefficient on the interaction term *Bidder country market share × International diversification* of the advisor (model (4)) is negative (−0.0959) but insignificant (*p*-value = 0.125), suggesting that greater local market share in the bidder country might exacerbate the effects of international diversification since the bidder advisor has little to gain by way of market share. These findings are further reinforced by model (6), in which we find that if the advisor

Table 10. The Effect of International Diversification on Synergy Returns and Bidder Relative Gains

Sample	Listed targets			
	Synergy CAR		Bidder relative gain	
Dependent variable				
Model	(1)	(2)	(3)	(4)
<i>International diversification</i>	−0.012 (0.010)	−0.019* (0.010)	−0.218 (0.271)	−0.177 (0.317)
<i>d(Pre- and postannouncement financing)</i>		−0.071 (0.042)		0.590 (0.843)
<i>d(Pre- and postannouncement financing) × International diversification</i>		0.051** (0.022)		−0.330 (0.408)
Top 10 target and top 10 bidder country, year, and industry dummies	Yes	Yes	Yes	Yes
Observations	287	287	287	287
Adjusted R-squared	−0.002	0.027	−0.039	−0.046

Notes. This table presents the results a sample of listed targets from ordinary least squares regressions of the synergy returns and bidder relative gains on the full set of explanatory variables included in model (2) of Table 5. To save space, only the coefficients on the main explanatory variables are presented in the table. The estimated coefficients are in the first row, and the Huber–White standard errors clustered by target country are in parentheses.

** and * indicate statistical significance at the 5% and 10% levels, respectively.

already belongs to the top five in the bidder country then it exacerbates the effects of international diversification: the coefficient on the interaction term *Advisor is Top 5 in the bidder country × International diversification* is negative and significant (−0.0277**). In models (5) and (7), we also examine the interaction of the international diversification measure with the advisor's market share in the target country/ranking in the target country, but we do not find any significant results.

Overall, our findings shown in Table 9 suggest that advisors have a higher incentive to offer better advice when financial incentives (through participation in deal financing) or market incentives (through the potential to capture greater market share/climb up the league table in the local market) incentivize them to do so. Such incentives are thus able to mitigate some of the negative effects brought on by the advisor's international diversification.

5. Synergy Returns and Bidder Relative Gains

Bidders' change in wealth depends on the synergies that an acquisition generates and the proportion of the synergies that accrue to these bidders (e.g., Kale et al. 2003). Advisors might structure better deals by, for instance, identifying targets whose businesses better match that of the bidders, resulting in greater synergy gains. Advisors might also play a more strategic role for bidders by negotiating better deal terms at the cost of the targets' shareholders, thereby increasing the bidders' share of the total synergy gains.

In Table 10 we replace bidder returns as the dependent variable with the three-day synergy CARs and

the bidder relative gains. We note that all deals should involve listed targets with available price information for the calculation of these dependent variables.

From model (2) in Table 10 we see that the international diversification of advisors that are not involved in financing negatively affects synergy gains (−0.019*). International diversification does not seem to impact the bidder relative gains (in models (3) and (4) of Table 10) since its coefficient in the models that explain bidder relative gains is never significant, including situations in which the bidder advisor is involved in financing.

In sum, bidder losses from engaging internationally diversified advisors can be attributed to inferior advice in the form of identifying acquisition targets with smaller synergies. Engaging internationally diversified advisors with commitment to financing mitigates this negative synergy effect and helps bidders through identifying high-synergy deals or advising against low-synergy deals.

6. Conclusion

To get a better understanding of how the international orientation of banks influences the value of their merger advice, we examine 1,705 cross-border acquisitions that took place during a 16-year period before the financial crisis in which listed nonfinancial bidders chose an advising bank. In particular, we examine the impact of advisors' international diversification in their M&A advice on bidders' announcement returns, deal synergies, and bidders' relative gains.

Although bidding firms have the potential to benefit from the superior target-country-specific knowledge/

experience of internationally diversified advisors, bidders can also be shortchanged by such advisors because of their weakened reputational concerns. We find that the net effect of greater international diversification of an advisor on bidder returns is negative. The bidders' wealth losses can be attributed to lower synergies, suggesting that a more internationally diversified advising bank may struggle to overcome greater conflicts of interest between itself and its client due to its diminished reputational concerns. However, bidders can somewhat mitigate the negative effect stemming from the international diversification of advisors by requiring them to have skin in the game through a financial commitment, which gives them incentives to advise deals with greater synergies and advising against low-synergy or value-destroying deals.

Although our findings are consistent with the existence of conflicts of interest induced by the international diversification of advisor(s), the rather complicated landscape of bidder–advisor pairings could present alternative channels that may result in similar findings. A reasonable alternative explanation for our findings is the endogenous selection of advisors tied to unobservable bidder-, target-, and deal-related factors. We have tried to address this problem by including an explicit selection model and instrumenting for the advisors' level of international diversification. Although it is not possible to eliminate the endogeneity concern completely, the fact that

our findings are robust to these alternative tests mitigates it.

Our findings suggest that advisors' business models and their effects on their reputational concerns should be an important consideration that goes into the selection of merger advisors by bidding firms. By being cognizant of potential conflicts of interest on the part of advisors, bidders can create incentive mechanisms, such as demanding financing commitments from advisors to increase the alignment of the advisors' objectives with their own.

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Appendix

Table A.1. Variable Name, Definition, Unit, and Source

Variable name	Definition	Unit	Source
Advisor geographical presence			
<i>International diversification</i>	The entropy measure of diversification defined in Jacquemin and Berry (1979) and Palepu (1985) that equals the sum of advisor country shares across all countries where the advisor operates times the natural logarithm of 1 over advisor country shares (based on the value of deals during the last year).	—	SDC
<i>Industry diversification</i>	Same as above except that the entropy measure is calculated based on all two-digit SIC codes in which the advisor operates.	—	SDC
<i>d(Global top 5)</i>	Equals 1 if the advisor belongs to the global top five in terms of market share during the year prior to the cross-border M&A announcement and 0 otherwise.	0/1	SDC
<i>Scope</i>	Intensity of the prior relation between the bidder and current advisor. Scope takes the value of 1 if, in the five years prior to the deal, the current bidder advisor was employed at least once for an equity issue, a bond issue, or an acquisition; it takes the value of 2 if the advisor was employed for two of the three types of transactions; it takes the value of 3 if the advisor was employed for all three types of transactions. Scope takes the value of 0 if the advisor was not previously engaged by the bidder for any of its capital market transactions.		DS
<i>Bidder (Target)-country focus</i>	The ratio of the value of advised deals that take place in the bidder (target) country and the total value of advised deals during two years prior to the year of the cross-border M&A announcement.	—	SDC
Deal returns			
<i>Bidder CAR (1, +1)</i>	The percentage three-day cumulative abnormal returns (CARs) of cross-border deal announcements winsorized at the 1- and 99-percentiles. The estimation window of the market model runs from 110 days until 10 days prior to the deal announcement.	%	DS

Table A.1. (Continued)

Variable name	Definition	Unit	Source
Deal returns (continued)			
<i>Standardized CAR (−1, +1)</i>	Following Boehmer et al. (1991), the standardized bidder CAR is the bidder CAR (−1, +1) scaled by the standard deviation of the bidder abnormal return in the estimation period times the square root of the length of the event window (three days). The standard deviation is estimated over the estimation period window (−110, −10).	%	DS
<i>Synergy CAR (−1, +1)</i>	The market value of equity-weighted bidder's and target's percentage three-day cumulative abnormal returns of cross-border deal announcements winsorized at the 1- and 99-percentiles. The estimation window of the market model runs from 110 days until 10 days prior to the deal announcement.	%	DS
<i>Bidder relative gain (−1, +1)</i>	The bidder's share of the three-day synergy gains of cross-border deal announcements winsorized at the 1st and 99th percentiles. Following Golubov et al. (2012), we estimate the synergy gains as the sum of the bidder and target dollar-denominated gains, which equal the product of the respective firm's market value of equity with its respective CAR. If the synergy gains are positive, the bidder relative gain equals the bidder dollar-denominated gains divided by the synergy gains. If the synergy gains are negative, the bidder relative gain equals 1 minus the bidder dollar-denominated gains divided by the synergy gains.	%	DS
Deal characteristics			
<i>ln(Value transaction)</i>	Natural logarithm of the value of the transaction.	\$-mln	SDC
<i>Relative transaction size</i>	Ratio of the transaction value to the market value of the bidder. We measure the market value of the bidder at the beginning of the year of the acquisition announcement and equals the book value of the bidder's assets minus its book value of equity plus its market value of equity.	—	SDC
<i>d(Stock payment)</i>	Equals 1 if at least a proportion of the payment consists of stock and 0 otherwise.	0/1	SDC
<i>d(Tender offer)</i>	Equals 1 if SDC classifies the deal as a tender offer and 0 otherwise.	0/1	SDC
<i>d(Complex deal)</i>	Equals 1 if the reaction of the target to the bidder's bid upon the initial disclosure of the offer price is hostile or unsolicited, or if there are more than one bidder and 0 otherwise.	0/1	SDC
Target characteristics			
<i>d(Target is listed)</i>	Equals 1 if target is listed and 0 otherwise.	0/1	SDC
<i>d(Related acquisition)</i>	Equals 1 if the target and bidder have at least one equal three-digit SIC code and 0 otherwise.	0/1	SDC
<i>ln(1+ No. of SIC codes of target)</i>	Natural logarithm of 1 plus the number of SIC codes of the target.	—	SDC
<i>d(Target hires advisor)</i>	Equals 1 if target hires an advisor and 0 otherwise.	0/1	SDC
Bidder characteristics			
<i>Market value of total assets</i>	The market value of total assets equals book value of total assets plus market value of equity minus book value of equity in (\$ trillion).	—	WS
<i>d(Large bidder)</i>	Equals 1 if the bidder's market value of total assets appears in the highest quartile of our full sample in the year of the deal and 0 otherwise.	0/1	WS
<i>Bidder Tobin's q</i>	Ratio of the market value of total assets to the book value of total assets. The market value of total assets equals book value of total assets plus market value of equity minus book value of equity.	—	WS
<i>Bidder free cash flow to assets</i>	EBITDA scaled by the market value of total assets. The market value of total assets equals book value of total assets plus market value of equity minus book value of equity.	—	WS
<i>d(Acquisition experience in target country)</i>	Equals 1 if the bidder and/or bidder parent has acquisition experience in target country in the five years period prior to the cross-border acquisition and 0 otherwise.	0/1	SDC
Advisor characteristics			
<i>d(Investment bank)</i>	Equals 1 if the advisor is an investment bank and 0 otherwise. In case of missing information in BankScope, a web search was used to find a description of the bank's activities.		
<i>d(Noninvestment bank)</i>	Equals 1 if the advisor is not an investment bank and 0 otherwise. In case of missing information in BankScope, a web search was used to find a description of the bank's activities.	0/1	BS
<i>d(Pre- and postannouncement financing)</i>	Equals 1 if the advisor assisted the bidder in issuing a syndicated loan, bond and/or equity shares between half a year before the deal announcement and half a year after the effective date, and 0 otherwise.	0/1	SDC

Table A.1. (Continued)

Variable name	Definition	Unit	Source
Advisor characteristics (continued)			
<i>d(Retain previous advisor)</i>	Equals 1 if the advisor was previously hired by the bidder for merger advice in the past five years and 0 otherwise.	0/1	SDC
<i>d(Switch to new advisor)</i>	Equals 1 if the advisor is different from those previously hired by the bidder for merger advice in the past 5 years, and 0 otherwise.	0/1	SDC
<i>Bidder (target) country market share</i>	Total value of deals advised by an advisor in the bidder (target) country divided by the total value of deals advised by all advisors in the bidder (target) country.		
<i>Advisor is top 5 in the bidder (target) country</i>	Equals 1 if the advisor belongs to ranked among the top five based on its market share in the bidder (target) country		

Notes. Units include the following: 0/1, dummy variable that equals 1 or 0; \$-mln, millions of U.S. dollars; \$-PPP, purchase power adjusted U.S. dollars; %, %age; km, kilometers; x – y , range going from x to y . In addition to own calculations, the employed data sources include the following: BS, BankScope; D, Doingbusiness.com; DLLS, Djankov et al. (2003); F, Factbooks; GCR, Global Competitiveness Report 2005–2006; K/H, Kogut and Singh (1988) and Hofstede (1991); LLSV, La Porta et al. (1997); M, mapcrow.info; DS, Datastream; SDC, Securities Data Corporation database; WDI, World Development Indicators; WS, Worldscope.

Endnotes

¹ See, for example, Weidner (2009) and the *Baker v. Goldman Sachs & Co.* case (09-CV-10053, U.S. District Court, District of Massachusetts, 1st Cir. 2010) about the advice on the acquisition of Lernout and Hauspie by Dragon Inc. in 2000.

² Banks include investment banks as well as noninvestment banks (commercial banks) with merger advisory activities.

³ Information asymmetry between banks and their clients can aggravate these conflicts of interest (see, e.g., Bolton et al. 2007). Mehran and Stulz (2007) review the possible conflicts of interest existing in financial institutions. Banks are better informed than their clients about the suitability of cross-border M&A deals, whereas this information is difficult for the client to verify. Especially with cross-border M&A advice, the asymmetric information problem is likely to be greater for geographically diversified banks than for focused banks. This situation could create incentives for banks to pursue short-term strategies as described above. See also Humphery-Jenner et al. (2014) on the role of private equity firms in facilitating cross-border M&A.

⁴ Under certain conditions (e.g., when repeatedly dealing with very large clients that require minimum standards everywhere), international diversification may also increase reputational concerns. In the end it is an empirical issue whether international diversification has a negative or positive impact on bidder gains.

⁵ When advisors are not involved in deal financing, an increase of one standard deviation in their international diversification measure lowers the synergy CAR by 121 basis points (bps), which is large, given that the average synergy CAR is 1.08%.

⁶ Ideally, we would like to observe how an exogenous change in the bidder advisor's international diversification impacts the bidder's outcome from the deal. A potential setting where one might observe such an exogenous change would be through mergers of advisory firms (similar to Hong and Kacperczyk 2010). However, in our setting we would require that a bidder advisor acquire another advisory firm (and thereby has a shock to its level of international diversification) while it is already engaged in advising the current bidder on a deal. Since we do not have data on when a bidder engaged its advisor and given that the typical engagement period for a merger tends to be approximately one year, such instances are likely to be rare (and hence not likely to be empirically exploitable).

⁷ In this literature some studies show a positive relation between geographic diversification and bank value (e.g., Eisenbeis et al. 1984, Deng and Elyasiani 2008), whereas other studies show a negative relation (e.g., DeLong 2001, Amihud et al. 2002).

⁸ Advisors reduce transaction costs, informational asymmetries between bidders and targets, and contracting cost (Servaes and Zenner 1996; see also Rosenbaum and Pearl 2009). In addition, Allen et al. (2004) highlight the certification role of advisors. According to McLaughlin (1990), a conflict of interest between advisors and clients could arise from the fee structure in their contracts. However, the advisors' concerns about their reputations could partially mitigate this conflict. Empirical research indicates that advisors' characteristics in general, and reputations in particular, influence bidder returns (e.g., Bowers and Miller 1990, Servaes and Zenner 1996, Rau 2000, Kale et al. 2003, Kisgen et al. 2009, Bao and Edmans 2011, Francis et al. 2012, Golubov et al. 2012).

⁹ For example, according to Cimilluca and Demos (2014), the market share of smaller investment banks has more than doubled, from approximately 8% in 2008 to approximately 18% in 2013. In 2014, 6 of the top 20 U.S. M&A advisors ranked by value of deals to their credit were boutiques. "With scrutiny of deals increasing from shareholders and their lawyers, boards are often eager to hire an adviser that's seen as conflict-free, even if it's to work alongside a full-service firm" (see also Farrell 2015; Turner 2015a, b).

¹⁰ The exclusion of financial firms is common when investigating the role of advisors in M&As (e.g., Allen et al. 2004). In many countries mergers between financial firms are subject to a different competition policy regime (Carletti and Vives 2009) and/or are often actively sought or discouraged by various policymakers.

¹¹ In unreported robustness tests we add 370 deals for which all data are available and in which firms engage multiple advisors to the sample of deals in which firms engage only one advisor. Estimated valuation effects are mostly unaffected.

¹² As in traditional top-tier rankings, we use one year of deals.

¹³ As is common in the economic and strategic management literature, we use a logarithmic function, entropy, as our measure of concentration and diversification. The entropy is decomposable so that it gives a natural way to measure concentration. The Herfindahl index, which is popular in measuring market concentration, is actually an approximation to the entropy (Booth and Booth 2009). The measure was extended to include international market diversification by Kim (1989).

¹⁴ The bidder may not be able to observe or may have less information about deals that were not completed by an advisor. In addition, bidders may be wary of the advisors' motives to report and boast about incomplete deals.

¹⁵ For example, Citicorp and Travelers Group merged into Citigroup in 1998. If a cross-border acquisition announcement takes place in

1997 with Citicorp as a bidder advisor, the SDC classifies Citigroup as parent advisor. We adjust for this misclassification by considering the deals of Citicorp in 1996, but not the deals of Travelers Group. However, if a cross-border announcement takes place in 1998 with Citigroup as bidder advisor, we consider all deals advised by Citicorp and Travelers Group in 1997, although these financial institutions were not yet merged then. The reason for including the deals of both is that we cannot know if the bidder that reports Citigroup as advisor hired either Citicorp or Travelers Group. A more practical reason for our focus on the parent advisor is the occasional use by the SDC of somewhat different names for the same subsidiary.

¹⁶Our results are unaffected if we replace the *Global top 5* dummy with a *Global top 10* or *Global top 20* dummy.

¹⁷This measure, which is the country focus from the advisor's perspective, does not account for the total value of deals done by all advisors in a country. Our measures of international diversification and country focus combined span intermediate measures of intra-continental diversification.

¹⁸Complex deals are identified using an indicator variable that is set equal to 1 if the target's reaction to the bid upon the initial disclosure of the offer price is hostile or unsolicited, or if there is more than one bidder, and is set equal to 0 otherwise.

¹⁹The base category consists of bidders that were not involved in a merger in the past five years and those that did not hire an advisor for their deals in the past five years.

²⁰*Scope* takes the value of 1 if, in the five years before the deal, the current bidder advisor was employed at least once for an equity issue, a bond issue, or an acquisition; it takes the value of 2 if the advisor was employed for two of the three types of transactions; it takes the value of 3 if the advisor was employed in all three types of transactions. *Scope* takes the value of 0 if the advisor was not previously engaged by the bidder for any of its capital market transactions.

²¹If the bidder was not involved in a deal in the past two years or if the bidder did not hire an advisor in the past two years, then the average international diversification of its past advisors is set to 0.

²²We sort our sample into deals made by small and large bidders. Large bidders are those whose market value of assets was above the median market value of assets of all the bidders that announced deals in a given year. In unreported results, we reestimate model (2) of Table 5 for the subsample of small and large bidders and find that our results are driven by the subsample of small bidders rather than of large bidders.

²³As in the tables, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

²⁴Adding an interaction term between international diversification and an indicator variable for listed targets to model (8) provides an interaction coefficient equal to -0.009 with a p -value of 0.169. Thus, the difference in impact of international diversification on bidder CAR between deals with listed targets and deals with private targets is not statistically significant.

²⁵One potential reason for this nonlinearity is that advisors with low levels of international diversification may have less ability and/or capacity to advise cross-border deals. For advisors with intermediate values of international diversification, these concerns may be somewhat mitigated (hence the positive coefficient on the second power of international diversification). In the extreme, however, highly diversified advisors, although able and having enough capacity, may be the ones facing diminished reputational concerns (hence the negative coefficient on the third power of international diversification).

²⁶Since international diversification is negatively correlated with target-country and bidder-country focus, the negative coefficient on our international diversification measure in the earlier models might be an artifact of target-country and bidder-country focus. To separate those two effects, we orthogonalize international diversification on

target-country and bidder-country focus and examine the coefficient on the orthogonalized measure. In unreported results, international diversification retains its negative impact on deal value after excluding the effects of target- and bidder-country focus. We also verify (not reported) that our finding are robust to the use of alternative proxies for advisor experience in the bidder/target country including (1) (log of) total deal value (all deals or cross-border deals) advised by the advisor in the bidder/target country in the past one or two years, and (2) fraction of all deals or cross-border deals (by total deal value) in the bidder/target country advised by the advisor in the past one or two years.

²⁷The industry diversification measure is calculated similarly to the international diversification measure described in Equation (1). Industries are identified using the two-digit SIC of the targets in deals advised by the advisor.

²⁸We require at least five deals per advisor to be included in the estimation with advisor fixed effects. Imposing this requirement restricts our full sample to 1,641 and our listed target subsample to 391.

²⁹Our results remain qualitatively the same when running the two-stage least squares regressions with the subsample of deals for which we have the average international diversification of past advisors available.

³⁰There are 764 deals (192 deals in the listed target subsample) for which we have the average international diversification of the previous advisor(s) hired in the past two years. For the remaining 942 deals (223 deals in the listed target subsample), the measure is an imputed value based on average international diversification of advisors hired by bidders in the same industry.

³¹The lowest value of the F -statistic against the null hypothesis that the excluded instruments are irrelevant in the first-stage regressions when using international diversification of previous advisors equals 9.88, which is larger than the 1% critical value of 5.4. This value is 6.2 when separating past advisors' international diversification for investment banks and noninvestment banks. With p -values equal to 0.33 for model (2) and 0.59 for model (4), the Sargan test of overidentifying restrictions also indicates that the instruments are exogenous (i.e., the error term is uncorrelated with the instruments). In sum, our instrumentation strategy is reasonable.

³²The base category consists of firms that did not do a deal in the past five years or did not hire an advisor even if they did a deal.

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