Information Transmission between Banks and the Market for Corporate Control*

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Abstract

This paper provides evidence of deliberate private-information disclosure within banks' international business networks. Using supervisory trade-level data, we show that banks with closer ties to a target advisor in a takeover buy more stocks of the target firm prior to the deal announcement, enabling them to benefit from the positive announcement return. We do not find such effects for bank connections to acquirer advisors or for trades in acquirer stocks. Target advisors benefit from leaking information about takeover bids to connected banks, as it drives up the final offer price without compromising the probability of bid success.

JEL Codes: G11, G15, G21, G24

Keywords: bank networks, trading, information spillovers, mergers and acquisitions, syndicated lending

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1 Introduction

How do economic incentives govern the diffusion of private information and resource allocation in financial markets? Attempts to microfound this relationship are centered on the incentives to *produce* and *share* information in social networks (Herskovic and Ramos, 2020; Leister, Zenou, and Zhou, 2021; Kranton and McAdams, 2022), such as those of interconnected banks. However, empirical evidence is limited to the economic consequences of social connections and the extent to which they facilitate social learning and the transmission of private information (Bailey, Cao, Kuchler, Stroebel, and Wong, 2018; Bailey, Gupta, Hillenbrand, Kuchler, Richmond, and Stroebel, 2021). While banks' key economic role is typically seen in collecting, processing, and producing private information relevant for financial decisions (Boot, 2000; Morrison and Wilhelm, 2007), little is known about banks' incentives to disseminate private information within their relationship networks and how this affects market outcomes.

This paper studies under what circumstances and how incentives matter for the transmission of private information between banks. In particular, we use syndicated-loan networks of banks in conjunction with administrative security-transaction data to infer information flows around the announcement of corporate takeovers (M&A). Information regarding imminent takeovers may spill over from banks that serve as advisors in the market for corporate control to other banks when both groups are also active in the syndicated-loan market. We show that such information spillovers exist and benefit members of syndication networks: banks that are connected to advisors of takeover targets purchase the latter's shares at lower prices prior to takeover announcements and subsequently reap trading gains.

Our empirical strategy is based on the idea that banks exchange information when engaging with one another in the process of syndication, and that some of these banks simultaneously act as advisors to target and acquirer firms in M&A transactions. The M&A context helps to identify the source of private information. In particular, we can keep constant private information while exploiting the fact that incentives for leaking information about imminent transactions vary across traded stocks and advisors. This is because announcement returns are positive pri-

marily for target, rather than acquirer, stocks. As such, target advisors have the incentive to leak related private information. If traders—e.g., other banks—act on this information and buy target stocks prior to takeover announcements, the takeover price increases, which implies that the target shareholders receive a larger share of the surplus. This would, however, not be in the interest of the acquirer advisor. In contrast, the incentives of privately informed traders and target shareholders, which are represented by the target advisor, are aligned.

To measure the strength of banks' ties to target and acquirer advisors, we use the fraction of jointly issued syndicated loans. In doing so, we can contrast the relative importance of trading banks for advisors and vice versa. Consistent with the idea that advisors leak information to connected banks as part of an exchange of favors, we find that banks that are more important for the target advisor's syndicated-loan business are more likely to trade on private information about imminent takeovers.

Using administrative data at the bank-security-date level from Germany, we can estimate the effect of banks' connectedness to target and acquirer advisors on their trades around international takeover announcements. The granularity of our data, and the fact that we exploit takeover-specific variation across banks, allows us to control for time-varying unobserved heterogeneity at the security and the (trading) bank level. Doing so, we find that banks closely connected to the target advisor purchase more shares of the target, but not of the acquirer, in the 30 days prior to the takeover announcement and, thus, at a lower price. In contrast, we find no such effects when considering the trading bank's degree of connectedness to the acquirer advisor. These effects are stronger when the potential trading gains are larger, i.e., for higher announcement returns, deals that are completed in a shorter amount of time, and for cash, as opposed to stock, transactions.

When banks that are more connected to target advisors purchase target shares ahead of takeover announcements, they do not merely emulate advisors' trading behavior, as we do not find advisors to act on their private information and purchase target shares themselves. This suggests that target advisors leak private information about imminent takeovers. At the deal level, we then show that they benefit from leaking such information to connected traders as it helps

to drive up the pre-announcement stock price of the target and, as such, the final offer price. This does not come at the cost of lowered deal success probabilities, which would diminish the expected revenues accruing to the target advisor.

Our evidence therefore suggests that target advisors have an incentive to leak this private information, and they share it effectively with connected banks that actively trade shares of non-financial corporations. By affecting the offer premium, this has real implications for the division of surplus in M&A transactions, without any repercussions for the reputation of the target advisor. On the contrary, our findings are consistent with a positive feedback effect for target advisors that successfully represent target shareholders' interests. In addition, connected banks' subsequent trading profits contribute to the stability of reciprocal exchange in loan-syndicate networks, which we use to capture private-information flows.

Our empirical laboratory resembles the theoretical setup in Antić and Persico (2017, 2020) and Voß and Kulms (forthcoming), built around an endogenous conflict of interest between shareholders and management that governs the extent of information transmission. Our setting is closer to that in Voß and Kulms (forthcoming), in that the conflict of interest is determined by the price offer of an external bidder, i.e., the acquirer, or by the target's stock price, which is affected by trades in the target stock. In our setting, we vary the degree of the conflict of interest between the advisors and trading banks by exploiting the fact that connected banks' trading motives are aligned only with the incentives of the target, but not of the acquirer, advisor. Our empirical evidence is consistent with the idea that strategic communication can foster efficient trade in the market for corporate control.

To capture information flows, we make use of syndicated-loan networks among banks, some of which also serve as M&A advisors. Syndicate members receive borrower-related private information from the lead arranger that can—and appears to be—exploited in the trading of borrower stocks (Bushman, Smith, and Wittenberg-Moerman, 2010; Ivashina and Sun, 2011; Addoum and Murfin, 2020). Consistent with the idea that there is information leakage within banks, Acharya and Johnson (2007) and Haselmann, Leuz, and Schreiber (2021) show that banks use their pri-

vate information on borrower firms, respectively, in the credit-derivatives market and in their securities trading around major corporate events, including mergers and acquisitions. In terms of the latter, there is evidence that traders that are affiliated with the target's (Mooney, forthcoming) or the acquirer's (Bodnaruk, Massa, and Simonov, 2009) investment-bank advisor belonging to the same financial conglomerate try to benefit from holding the target's stock prior to M&A announcements. Rather than studying the information transmission within banks, our paper identifies information transmission *between* banks and highlights a potentially important side effect of the ever-increasing interconnectedness of the financial sector.

We use the syndication process for loans to uncover information networks on an international scale. This novel channel complements previously discussed information networks in the literature. As Kuchler and Stroebel (2021) highlight, at various levels social connections serve as a means of sharing private information and facilitating social learning in financial decision-making. For instance, Rehbein and Rother (2020) find that stronger social connections boost cross-regional bank lending, especially for information-sensitive loans. Using common ownership as a channel of information transmission, Colombo, Grigolon, and Tarantino (2021) show that within loan syndicates lead banks and (commonly owned) participants share information regarding the borrower's credit quality.

With respect to the role of information networks and insider trading, Jagolinzer, Larcker, Ormazabal, and Taylor (2020) show that politically connected traders benefited from insider information on TARP. Cohen, Frazzini, and Malloy (2008) present evidence that fund managers hold larger positions, and realize excess returns, on stocks of firms with CEOs that share a common educational background with them. More generally, Ahern (2017) documents how information flows through strong social ties based on family, friends, and geographic proximity enable insider trading. Finally, Bradley, Jame, and Williams (2022) argues that non-deal roadshows constitute a channel for the transmission of private information between firms' management and institutional investors, enabling the latter to trade profitably.

While all of these studies treat established networks as a sufficient condition for information

sharing, we show that pre-existing relationships are only a necessary condition. Whether private information is actually disseminated across network members is ultimately determined by economic incentives.

As such, our paper is related to the literature on the use and transmission of insider information (see Economist, 2018, for a general overview and the practical relevance of this subject matter). For instance, Meulbroek (1992) shows that markets take the possibility of informed trading into account and incorporate it in stock prices. Ali and Hirshleifer (2017) identify and quantify profits from insider trading, while Jenter (2005) analyzes market timing by managers and shows that insiders are contrarian investors.

Various other papers document such patterns in different financial markets and for different sources of private information. Barbon, Di Maggio, Franzoni, and Landier (2019) present evidence that brokers leak information on order flow of block trades, enabling connected traders to engage in predatory trading. In the context of mergers and acquisitions, Augustin, Brenner, and Subrahmanyam (2019) report abnormally high trading volumes in out-of-the-money equity call options on targets prior to takeover announcements. Jegadeesh and Tang (2010) find that funds whose main broker is a target advisor are net buyers of target shares before announcement, while Lowry, Rossi, and Zhu (2019) present evidence suggesting informed trading by M&A advisors in options. Dai, Massoud, Nandy, and Saunders (2017) and Fich, Lantushenko, and Sialm (2020) report increases in holdings of future takeover targets by hedge funds.

Trading on or disseminating insider information would contradict banks' fiduciary duties as this typically hurts bank customers and would, thus, be a cause of regulatory concern, as has been argued by Puri (1996) with regard to universal-banking deregulation. In contrast, we show that information leakage emanating from the target advisor in our M&A setting does benefit the target shareholders. Thus, our paper points not only to the primary beneficiaries of insider trading but also to potentially limited downsides for the firms whose shares are traded (akin to Suk and Wang, 2021).

2 Data Description

Our main data source covers all securities trading by German financial institutions. In accordance with the Markets in Financial Instruments Directive (MiFID),[1] German financial institutions are required to report each security transaction to the German Federal Financial Supervisory Authority (BaFin). One of the main purposes of the reporting requirement is to detect market manipulation and insider trading. The dataset contains information on the date, quantity, and price of a security traded by a given bank. In addition, we use bank-level balance-sheet data (covering, for instance, banks' total assets, capitalization, and asset composition) from BISTA[2] (Gomolka, Schäfer, and Stahl, 2020).

We merge these data with information on international M&A deals from Securities Data Company (SDC) Platinum. The latter dataset includes information on takeovers, such as the announcement and effective date, the percentage of the target acquired and owned after the transaction, the offer price, the medium of exchange (in particular cash vs. stock), and the advisors on the target and the acquirer side. We complement the merged dataset with security-specific daily return data from Thomson Reuters Eikon. As a final ingredient, we use syndicated-loan data from DealScan to empirically capture the possibility for information spillovers. In particular, we construct an exposure variable based on joint lending activity of trading banks and deal-specific advisors based on the year prior to the announcement of a given takeover.

We restrict our sample to proprietary trading of stocks by banks with a trading book and that are active in the international syndicated-loan market. This leaves us with 37 German banks. The average bank has assets amounting to € 81 billion, of which 5% are held in stocks, and an equity ratio of 10% (see Panel A of Table 1). More than half of these banks function at least once themselves as an advisor in an M&A transaction during our sample period between 2010 to 2016. For the main analysis, we exclude trading banks that are directly involved in takeovers as advisors, but analyze the trading behavior of target and acquirer advisors separately.

[1] https://www.bundesbank.de/en/bundesbank/research/rdsc/research-data/mifid-617976
[2] Data ID: 10.12757/BBk.BISTA.99Q1-19Q4.01.01

After restricting our sample to effective majority deals, leading to $> 50\%$ of the target shares being acquired and $> 50\%$ of the target being owned after the transaction, and excluding deals in the financial sector, we are left with 3,052 M&A deals from 2010 to 2016 (Panel B of Table 1). Each deal can be viewed from the target or the acquirer side, data on which may not always be available. Target stocks have, on average, an announcement return (announcement date -1 day, +1 day) of 20%, the length between effective and announcement dates is 112 days, and about two-thirds are cash deals (Panel B1). Acquirer stocks yield, on average, only a very small announcement return of 1% (Panel B2). In addition, the distribution of M&A transactions over time and across countries is indicated in Figures A1 and A2, respectively.

3 Hypothesis Development and Empirical Strategy

We start out by showing that it is profitable to buy target, rather than acquirer, stocks ahead of takeover announcements. As can be seen in Figure 1, target stocks have highly economically and statistically significant announcement returns, controlling for security and date fixed effects, whereas this is not the case to the same extent for acquirer stocks (Figure 2). This suggests that trading on private information about imminent takeovers is profitable primarily in target stocks, i.e., by purchasing target stocks ahead of announcements. The latter is, in turn, reflected in a more emphasized run-up in targets' stock prices ahead of takeover announcements.

While fiduciary duties should, in principle, keep both acquirer and target advisors from trading themselves on private information, target advisors can benefit from elevated demand for target stocks and a subsequent increase in the target's stock price prior to takeover announcements, as this might lead to a higher offer price. As such, target advisors have an economic incentive to allow connected banks to reap trading profits from purchasing target stocks ahead of takeovers. In contrast, acquirer advisors do not have strong incentives to leak information on imminent takeovers, as the induced trading behavior of informed traders would increase the costs of the merger for the acquirer and potentially render the takeover bid less likely to be successful. We

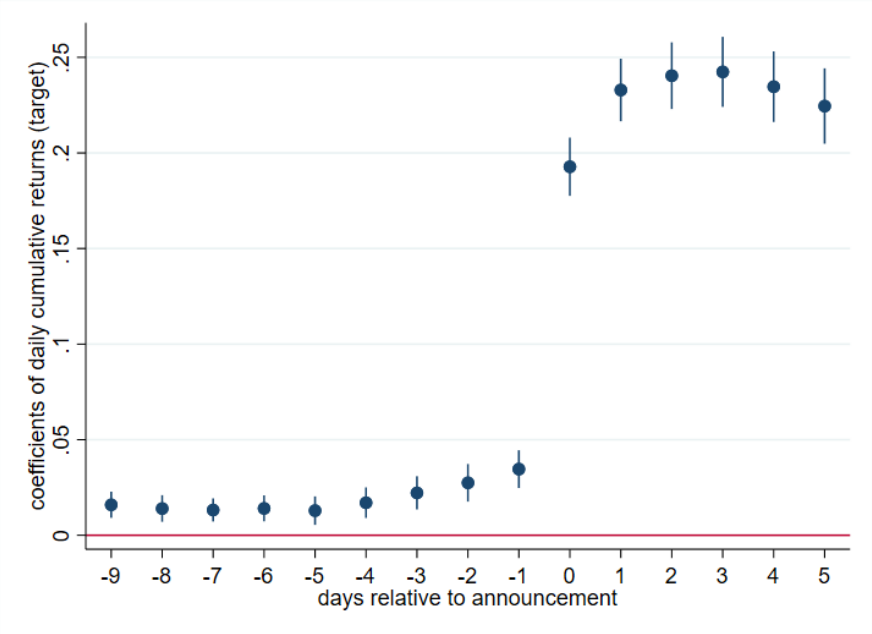

Figure 1: **Cumulative Returns of Target Stocks around Takeovers.** The figure shows the point estimates and 95% confidence intervals for 9 days prior to the announcement and 5 days afterwards, based on the following regression specification: $Return\ (cumulative)_{st} = \beta_t \sum_{t=-9}^{5} Takeover_{st} + \delta_t + \gamma_s + \varepsilon_{st}$, on a sample at the security-date level from 30 days prior to 5 days after the announcement. Standard errors are double-clustered at the security and date level.

therefore hypothesize that traders connected to the target advisor are more likely to be informed and trade profitably prior to takeover announcements.

To test this conjecture, we use data at the bank-security-date level and a symmetric time window of 30 days before and after a deal is announced. Descriptive statistics of the main dependent and explanatory variables are shown in Panel C of Table 1, separately for trading in target (Panel C1) and acquirer stocks (Panel C2).

Our most important explanatory variable of interest measures the intensity of a connection between a trading bank and a given deal's M&A advisor, namely by the number of joint syndicated loans scaled by the total number of syndicated loans granted by the advisor or the trading bank. As such, our measure captures the relative importance of the trading bank for the advisor's syndicated-loan business, or the other way around: $Intensity_{abt-1y}$ in the sense of advisor $a \rightarrow$ bank (trader) b is calculated as the number of joint syndicated loans by a and b relative to the

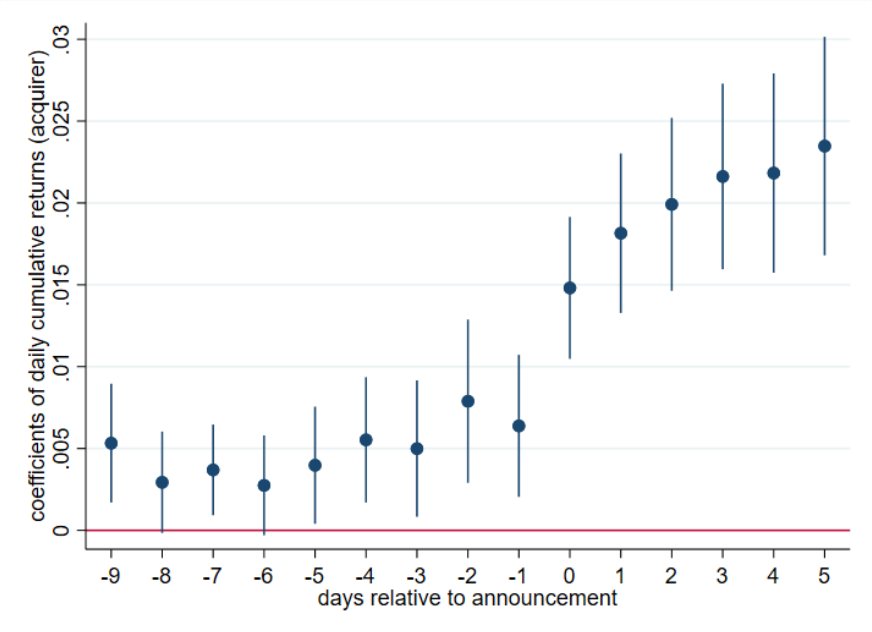

Figure 2: **Cumulative Returns of Acquirer Stocks around Takeovers.** The figure shows the point estimates and 95% confidence intervals for 9 days prior to the announcement and 5 days afterwards, based on the following regression specification: $Return\ (cumulative)_{st} = \beta_t \sum_{t=-9}^{5} Takeover_{st} + \delta_t + \gamma_s + \varepsilon_{st}$, on a sample at the security-date level from 30 days prior to 5 days after the announcement. Standard errors are double-clustered at the security and date level.

number of syndicated loans by advisor *a* in the year prior to the deal announcement associated with security *s*.[3] Importantly, although we analyze the trading behavior of German banks, we do capture their relationships to international advisors (396 in total), which are also active in the syndicated-loan market.

To assess whether a trading bank b that is more important for the syndicated-loan business of target advisor a acquires more stocks of the target s prior to the M&A announcement, we estimate the following specification:

$$\begin{aligned} \text{sgn}(\ln(|Net\,nominal_{bst}|) = \beta_1 Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y} \\ + \beta_2 Intensity_{abt-1y} + \theta_{st} + \mu_{bt} + \varepsilon_{bst}, \end{aligned} \tag{1}$$

[3] In case of multiple advisor relationships maintained by a trading bank, we use the maximum for the same direction.

where sgn(ln($|Net\,nominal_{bst}|$) is the signed natural logarithm of the net nominal amount of stock s traded by bank b on date t, $Intensity_{abt-1y}$ is the fraction of syndicated loans jointly issued by the target advisor a and bank b out of all syndicated loans of the target advisor a in the year prior to that associated with date t, $Pre\text{-}Announcement30_{st}$ is a dummy variable that is equal to 1 for the 30 days prior to the announcement of the takeover bid for the firm associated with stock s, and θ_{st} and μ_{bt} denote, respectively, security by date and bank by date fixed effects.

As a placebo test, we estimate the same specification for acquirer stocks. In addition, we can vary the direction of $Intensity_{abt-1y}$ by scaling the number of syndicated loans jointly issued by the target advisor a and bank b by the total number of syndicated loans of bank b. Finally, we can construct the same variable for acquirer advisors.

4 Main Results

We first present graphical evidence of the trading behavior of banks that vary in the degree to which they are connected to the advisor of the target firm in a given takeover. Figure 3 shows that connected traders purchase target stocks ahead of takeover announcements, potentially reflecting that they take advantage of private information they have accrued through the target advisor.

To substantiate this finding, Table 2 shows our results from estimating (1). Columns 1 and 2 report the results for regressions with less restrictive sets of fixed effects, while column 3 presents the results of our preferred baseline specification. The coefficient β_1 on our variable of interest is statistically highly significant irrespective of the set of fixed effects, and varies only slightly in size across specifications. A trading bank that is more connected to the target advisor by one standard deviation purchases, on average, (0.1 $\times$ 5.4 =) 54% more of the target stocks in the 30 days prior to the announcement. This finding lends support to the view that banks that are more important for the target advisor's syndicated-loan business are more likely to obtain private information about the imminent announcement of the takeover bid. This permits the connected bank to buy target stocks and benefit from the substantive announcement effects.

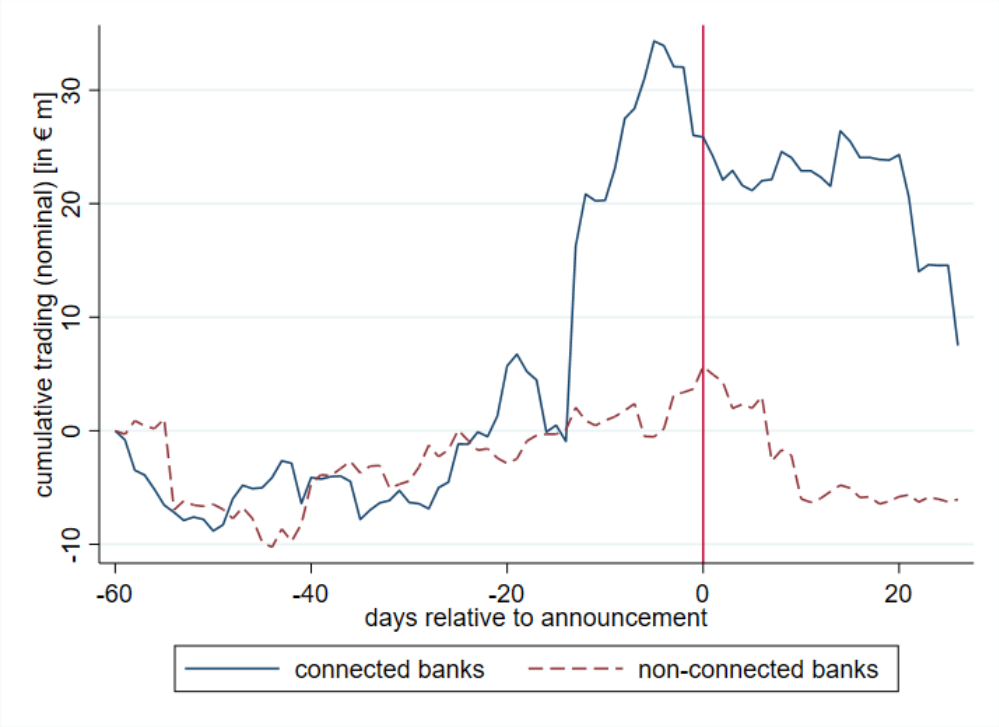

Figure 3: **Cumulative Nominal Trading (in € m) in Target Stocks 60 days before and 30 days after the M&A Announcement.** Trading by connected banks refers to traders having joint syndicated-lending activity with at least one of the target advisors one year prior to the M&A announcement (solid blue line). Trading by non-connected banks is shown by the dashed red line.

In order to test whether this effect is specific to a trader's connection with the target advisor, in column 4 we estimate whether the importance of a trader for the acquirer advisor's syndicated-loan business can also explain the pre-announcement acquisition of target stocks by the trader. When using the fraction of syndicated loans jointly issued by the acquirer advisor and the trading bank out of all syndicated loans of the acquirer advisor, we do not find a significant effect on pre-announcement stock purchases of traders more connected to the acquirer advisor. This suggests that only traders connected to the target advisor obtain private information.

Using the reverse importance of the target advisor for the trader's syndicated-loan business in column 5 yields similar results as before. In contrast, column 6 shows that traders that issued more syndicated loans with the acquirer advisor relative to the trader's total syndicated lending do not buy more stocks of the target prior to the announcement of the takeover bid.[4] This confirms

[4]This also suggests that central acquirer advisors' information advantage (Yawson and Zhang, 2021) is not driving

that it is the connection to the target advisor that seems to matter for the diffusion of the insider information.

Since the announcement effect is much more emphasized for target stocks, traders would not benefit as much from any private information on an imminent takeover bid by purchasing stocks of the acquirer. In columns 7 and 8, we test whether connected traders purchase any acquirer stocks ahead of takeover announcements. We do not find any evidence of pre-announcement purchases of acquirer stocks by traders more connected to the target advisor (column 7) or by traders more important for the acquirer advisor's syndicated-loan business (column 8).

As a first main robustness check, we estimate, instead of the net amount purchased by a specific trader, its propensity to buy the target or acquirer stock, i.e., the extensive margin. For this purpose, we replace the dependent variable in our regressions with a dummy variable, Buy_{bst}, indicating whether trading bank b net-purchased stock s on date t. The results in Table 3 are qualitatively similar to our baseline estimates: the propensity to purchase the target stock prior to the takeover bid significantly increases the more the target advisor depends on the respective trading bank for its syndicated-loan business.

This is again robust to the inclusion of various sets of fixed effects (columns 1 to 3), going so far as to control for time-varying unobserved heterogeneity at both the trader and the security level. In terms of economic magnitude, a trader with a one standard deviation more intense connection with the target advisor has, on average, a 2.6% higher propensity to purchase the target stock during the 30 days prior to the takeover announcement. As before, the pre-announcement propensity to purchase target stocks is only correlated with the connection to the target advisor (columns 1, 2, 3, and 5), but not the acquirer advisor (columns 4 and 6). In addition, we also do not find evidence that connected traders are any more likely to buy acquirer stocks prior to the announcement. This holds for connections to the target as well as the acquirer advisor (columns 7 and 8).

Our identification strategy hinges on the fact that we distinguish bank connections to target

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our results.

advisors vs. acquirer advisors associated with the same takeover events. As the connected banks' trading motives are aligned only with the incentives of the target, but not of the acquirer, advisor, only the target advisor should have incentives to disseminate any private information about imminent takeover announcements. To test this more directly, we estimate a horse race between trading banks' connections to the target vs. acquirer advisor. This also sheds light on whether the estimates in Tables 2 and 3 with respect to traders' connections to target advisors and acquirer advisors are only a mere result of the two being highly correlated, while connections to acquirer advisors are only more volatile.

In Table 4, we include the intensity of a trader's connection to the target advisor and to the acquirer advisor simultaneously, alongside the most restrictive set of fixed effects (as in columns 3/4 and 7/8 in Tables 2 and 3). The amount and propensity of a trader to buy target stocks before takeover announcements is only correlated with the intensity of its connection to the target advisor. The coefficient is still highly significant and even slightly larger in magnitude than before (columns 1 and 3). Conversely, there is no significant relationship between a bank's pre-announcement trading activity in a target stock and its connection to the acquirer advisor. Interestingly, when included in the joint estimation, the intensity of the trader's connection with the acquirer advisor now has a negative, albeit statistically insignificant, coefficient. This suggests that when a trading bank is connected to both the target and the acquirer advisor, it is less likely to obtain private information, or is less inclined to trade upon it. Columns 2 and 4 report the respective results for the placebo tests on the amount and the propensity to purchase stocks of the acquirer firm. Again, the intensity of a given bank's connection to both the target and the acquirer advisor do not carry any significant effect on its trading in acquirer stocks.

In sum, these results support the view that target advisors are more likely to disseminate information about an imminent takeover particularly to other banks with which they are closely connected in the syndicated-loan market. Banks that are more connected to the target advisor only buy target stocks, as acquirer stocks do not benefit on average from a positive announcement effect. This indicates that traders acquire positions prior to takeover announcements in an

attempt to exploit their private information and to reap trading profits from positive announcement effects.

5 Robustness Checks

To further assess the robustness and validity of our results for connected banks' trades in target stocks, we perform a battery of robustness checks, which are summarized in Table 5. A main concern with respect to our key finding is that the intensity of the trading bank's connection to the target advisor may be, instead of a valid measure of private-information exchange, only a proxy for closer relationships that might involve institutional ties, such as the trader being the custodian bank or market maker for the advisor, that could in turn explain our results. In order to address this concern, we add to our baseline regression specification trader-advisor pair fixed effects. In this manner, we exploit only variation in the intensity of the trader's connection with the same target advisor over time. Interestingly, after including trader-advisor fixed effects, our key results do not only prevail, but the main effect is economically even more pronounced. Thus, our syndicated-loan based measure for banks' connectedness to target advisors is unlikely to explain their pre-announcement trading behavior through time-invariant aspects of their relationship. This renders it more likely that we, instead, capture (time-varying) information diffusion from the target advisor to connected banks.

A further concern relates to the fact that our trading data are confined to transactions of German banks only. German (universal) banks, however, maintain close ties to firms, i.e., they are represented on corporate boards and serve as relationship lenders. This might, in turn, imply that these banks may have at their disposal alternative sources of private information regarding takeovers of German firms. However, after dropping German deals from the sample in column 2, our results remain remarkably similar to our baseline estimates (see column 3 in Table 2). This also suggests that cultural similarity or other aspects of familiarity (Guiso, Sapienza, and Zingales, 2009; Bereskin, Byun, Officer, and Oh, 2018), which are typically viewed as facilitating

information transmission in social networks, are unlikely to drive our results.

In order to improve upon the external validity of our trader-time and security-time fixed effects—which are in our setup naturally estimated using only observed, and not, for instance, intended, transactions—we next re-run our regression specification also on an unrestricted sample that comprises all trades in every stock by each reporting bank (column 3). On this extended sample, we can also include trader-security fixed effects in our regressions (column 4). This allows us to control for instances in which banks serve as a market maker for the target stock and, as a consequence, hold inventory in this stock prior to the takeover announcement. Again, our key result remains unaffected: even with this much larger sample and additional fixed effects, traders more closely connected to the target advisor through their syndicated-loan business purchase more target stocks prior to the takeover announcement. The economic magnitude is roughly similar to that of our baseline estimates.

Mergers and acquisitions often affect certain industries and occur in waves. Banks may specialize in a certain industry and, as such, be in a better position to learn in advance about takeovers in this industry. At the same time, specialized banks might also be better connected to M&A advisors of deals in the same industry. In order to rule out that our results are confounded by trading banks' industry knowledge, we add interactions of trader by industry fixed effects with a dummy variable for a given merger's pre-announcement period (column 5), which control, among others, for a given trader's purchases of target stocks in a given industry prior to each takeover announcement. In column 6, we include even more granular trader by industry by date fixed effects to ensure that our findings are not driven by developments in a bank's trading strategy across stocks within a given industry. Interestingly, while the effects of our main variable of interest remain highly significant in both cases, their economic magnitude increases with this even more restrictive set of fixed effects.

Finally, we further probe whether it is indeed the connection of a trading bank to the target advisor that matters for the trader's pre-announcement target-stock acquisitions, and whose relative importance matters more. For this purpose, we compute different measures for the in-

tensity of the connection, varying the direction and type of advisor. First, we hold constant the (target or acquirer) advisor. For each type of advisor, we then re-define our intensity measure as the maximum of the fraction of syndicated loans jointly issued by the respective advisor and the trading bank out of all syndicated loans (i) of the advisor and (ii) of the trader. Second, we hold constant the direction of the intensity measure, and re-define the latter as the maximum of the syndicated-loan portfolio overlap between the trader and (i) the target advisor and (ii) the acquirer advisor, relative to the respective advisor's or the trader's total syndicated lending.

The results using these alternative measures for the connection intensity between traders and M&A advisors are remarkably similar to those of our baseline regressions. First of all, we use the maximum of all four before-mentioned intensity measures. Doing so, we find in column 7 of Table 5 that the intensity in the syndicated-loan connection between a given trading bank and *any* advisor, irrespective of direction and type of advisor, matters for whether the trader purchases target stocks prior to the announcement. In the remaining columns, we use, in turn, the four concrete intensity measures. Columns 8 and 9 reveal that the trader's purchasing behavior is driven entirely by its connection to the target, rather than the acquirer, advisor. In addition, columns 10 and 11 suggest that the relative importance of the trader for the advisor's syndicated-loan business, rather than the other way around, is the more significant determinant for whether the connected bank trades on obtained private information. Therefore, the advisor's information transmission is—at least partly—incentivized by the trading bank's relative importance for the advisor's syndicated-loan business.

6 Variation in the Strength of Economic Incentives

If traders closely connected to a target advisor indeed buy target stocks pre announcement because they trade on private information obtained from the advisor, they should be more inclined to purchase target stocks when expected profits from trading on private information are largest. To test this idea, we use as a first order of approximation the actual announcement return for

target stocks. Columns 1 and 2 in Table 6 present the results when we run our key regression specification for banks' trading in target stocks on a split sample for takeover announcements with an above-median and below-median return, respectively. More connected traders purchase significantly more stocks pre announcement only of those targets that experience a relatively large announcement return (column 1).

It is not clear, however, that informed traders can perfectly anticipate which takeover announcements will have a particularly high announcement return, or whether the target advisor's transmitted information also involves information suggestive of the size of the deal premium. Against this background, we use alternative parameters of takeovers that are more likely to be known by the trading bank and that are also correlated with announcement returns. For instance, deals that are unlikely to go through—e.g., difficult or more complicated transactions—tend to generate lower announcement returns, in part because the latter incorporate the reduced likelihood of deal success (Malmendier, Opp, and Saidi, 2016). Thus, we split our sample into M&A transactions that are effective within 120 days after announcement (column 3) and "difficult" transactions that take longer to come into effect (column 4). In line with their profit motive, traders more closely connected to the target advisor purchase stocks of targets solely ahead of takeovers that are executed within 120 days (column 3).

Similarly, the positive announcement return of target stocks is concentrated among takeover bids made as cash offers, in line with the model of Shleifer and Vishny (2003) and empirical evidence (Huang and Walkling, 1987; Yook, 2003; Malmendier, Opp, and Saidi, 2016). To examine whether trading banks exploit pre-announcement information primarily for cash takeovers with higher announcement returns, we split the sample into takeover bids with a cash component (column 5) vs. pure stock bids (column 6).[5] Indeed, the effect on connected banks' trading behavior is confined to takeover bids with a cash component. This is plausible because if the target advisor leaks information on the imminent takeover bid, it will also know about the medium of exchange and share this information with connected banks. Our evidence suggests that connected traders

[5] As most deals have a cash structure, and for the sake of comparability across columns, we use a less restrictive fixed-effects structure so as to avoid having too few observations in column 6.

also seem to obtain this private information, and subsequently use it in their trading decisions.

To provide further evidence that these trades are indeed induced by private information pertaining to imminent takeovers, and not any other events, we dissect the pre-announcement period and study whether the stock purchases of connected traders are particularly pronounced closer to the announcement date. Table 7 reports our regression results for banks' trading target stocks, and considers only a 15-day (columns 1), 30-day (column 2), 60-day (column 3), or 100-day (column 4) pre-announcement period. The comparison of the regression coefficients shows that the effect is economically substantially larger the shorter the definition of the pre-announcement period. This implies that closer to the announcement date connected traders' purchases of target stocks become increasingly prominent. In column 5, we use in the same regression dummy variables defining disjoint time windows prior to the announcement, i.e., 100-61 days, 60-31 days, 30-16 days and 15-0 days before announcement, and interact those with the importance of the trader for the target advisors' syndicated-loan business. In line with our prior interpretation and conclusions drawn from Figure 3, we find that only in the 30 days prior to the announcement do connected traders purchase significantly more target stocks.

In columns 6 to 10, we re-estimate the same regression specifications for the extensive margin, i.e., the trader's propensity to buy the target stock, and obtain very similar results. The propensity to buy target stocks is elevated closer to the announcement date. Long before the announcement (100-31 days before) there is no evidence that traders that are more connected to the target advisor have a stronger tendency to purchase target stocks. These results also hold up to replacing the continuous variable $Intensity_{abt-1y}$ with a dummy variable that equals 1 for any non-zero value thereof (Table 8). The effect—in terms of both statistical and economic significance—is concentrated in the 15 days prior to the announcement (see columns 5 and 10 of Table 8).

There exists empirical evidence that although it would imply that they violate their fiduciary duties, banks might exploit in their proprietary trading private information obtained from close relationships with their non-financial customers (as shown most recently by Haselmann, Leuz,

and Schreiber, 2021). In our setting, this would correspond to advisors trading themselves on their private information about an imminent takeover. If this was the case, our results could simply reflect that connected traders only imitate advisors' trading behavior. In order to evaluate this possibility, in Table 9 we re-run regression specification (1) using, instead of the $Intensity_{abt-1y}$ measure, a dummy variable identifying whether a trader b is at the same time also either a target advisor (columns 1 and 3) or acquirer advisor (columns 2 and 4) in the deal involving stock s as target (columns 1 and 2) or acquirer (columns 3 and 4). As the results show, neither acquirer nor target advisors boost their stock positions prior to takeover announcements, irrespective of whether we consider target or acquirer stocks.

In columns 1-4, we effectively compare the trading behavior of advisors with that of non-advisors with different degrees of connectedness to the respective advisors. If connected traders only mimic the trading behavior of advisors, then we are less likely to detect differential trading behavior by advisors in the pre-announcement period. However, even after restricting the sample to include only non-advisors that are not connected to either one of the advisors (columns 5-8), our results for the pre-announcement period remain robust. After takeover announcements, however, both target and acquirer advisors purchase more target shares, and acquirer advisors are less likely to buy acquirer shares than unconnected non-advisor banks. This suggests that especially target advisors disseminate the information about an imminent takeover announcement to their peers without exploiting the private information themselves. In Section 8, we further investigate why particularly the target advisors may have an incentive to leak this private information.

Finally, we consider the possibility that in addition to trading in target stocks, connected banks may alter their trading in stocks of firms that are not directly involved in a takeover but may be affected by it, e.g., through competition effects or because of the resulting cross-holdings (Harford, Jenter, and Li, 2011). In doing so, one faces the challenge of identifying peer firms of the respective firm involved in a takeover bid. For this purpose, we consider for each M&A transaction the five competitors with the highest stock-return correlation with the target stock

three years prior to deal announcement ($Corr_{st}$). That is, instead of considering trades in the target stock, we analyze a given bank's trading in these five competitor stocks.

In column 1 of Table 10, we re-run our baseline specification for these stocks, and find that connected banks reduce their exposure prior to takeover announcements. In column 2, we find—as before—no effect for banks connected to the acquirer advisor. Connected banks rebalance their loan portfolios within a given industry in favor of the target firm, which they deem to benefit the most from the imminent takeover.

At first glance, our evidence seems at odds with the hypothesis in Song and Walkling (2000) that rivals of targets may benefit from takeover announcements due to an increased probability of becoming targets of takeovers themselves. To investigate potential heterogeneity among industry peers, we differentiate them by their correlation in comparison to the median across all takeovers in our sample. The underlying rationale is to identify the target's competitors whose stock prices should appreciate most likely in accordance with the target's stock price, potentially reflecting revaluation effects of industry peers due to reasons including, but not limited to, higher future acquisition probabilities. Indeed, irrespective of whether we use a dummy variable, $High\text{-}Corr_{st}$, for highly correlated stocks (above the median correlation) or the underlying continuous variable, our results in columns 3 and 4 indicate that connected banks are less likely to reduce their exposure to such stocks. All of these insights hold qualitatively when replacing the dependent variable by the indicator variable Buy_{bst}, capturing the extensive margin (as in Table 3).

7 Prices and Trading Gains

Figure 3, in conjunction with our baseline results, already suggests that traders closely connected to the target advisor buy more shares prior to the announcement and, thus, at a lower price. In order to more explicitly assess whether connected traders do pay less for target stocks than other traders, because they use the private information to time their purchases, we first calculate the

volume-weighted average price a trader b pays for its purchases of stock s on date t. We then estimate a trader's daily purchase price of a target stock 30 days before and after the announcement as a function of its importance for the target advisor's syndicated-loan business, while using different sets of fixed effects and daily transaction controls at the stock by trader level sb (daily transaction volume and number of daily trades).

As our results in Table 11 show within the 60-day window around announcements, banks that are more connected to the target advisor pay significantly less when purchasing the target stock than do other traders. This finding not only holds when including security fixed effects (column 1), but also after adding trader fixed effects (column 2). The latter suggests that the trading gains reaped by connected traders cannot be simply attributed to their time-invariant characteristics, e.g., their size, general degree of connectedness, or any particular trading style. Our results are also robust to the inclusion of year fixed effects (column 3), taking care of variations in annual market returns, and to using trader by year fixed effects (column 4), accounting for changes in a bank's general trading strategy (e.g., deleveraging) and access to information. This also precludes that our results are driven by time-varying characteristics of trading banks that may be correlated with their connections in the syndicated-loan market. Overall, a trader more connected by one standard deviation to the target advisor earns a trading gain of € 0.67 on its average daily trades of the target stock (based on column 2).

In the last column, we compare trades by banks in the same security and on the same day by adding security by date fixed effects. After doing so, our key variable of interest, the connection between the trader and the target advisor, is no longer a significant determinant of the price at which the trader purchases target stocks around the announcement date. This lends further support to our interpretation: connected traders only make a trading profit because their private information permits them to buy stocks before the announcement. When trading on the same day as other traders, connected traders do not manage to purchase target stocks at a lower price. This also highlights that connected traders are not generally (through their connection to the target advisor) in a position to reap trading gains in target stocks, e.g., by front-running elevated

order flow around the announcement.

8 Advisors' Incentives

Reciprocal favors—e.g., in their syndicated-loan business—might be a motive for banks to disclose confidential M&A-related information to their business partners. This reasoning would hold for both acquirer as well as target advisors. Our previous findings suggest, however, that primarily target advisors reveal such private information to connected banks, and somewhat more so if the connected banks are relatively more important for their syndicated-loan business (cf. column 10 vs. column 11 in Table 5).

This raises the question as to whether target advisors are particularly incentivized to leak private information of an imminent takeover. One reason might be that leaking such private information to connected traders helps drive up the pre-announcement stock price of the target and, thereby, also the final offer price. Given that target advisors' fee income is typically linked to the transaction value (see, among others, McLaughlin, 1990), this will boost the target advisors' revenues.

As offer premia are deal-level outcomes, we move our analysis to the cross-section of M&A deals (indexed by d) with information on the target side. In particular, we differentiate target stocks by the trading activity therein of banks closely connected to the target advisor of the respective deal. To capture this empirically, we compute $Informed\ Trading\ Exposure_d$, which is the weighted sum of all of trading bank b's net purchases of target stock s within the 30-day window prior to the announcement of deal d ($Trading_{bst}$) relative to the total net purchases by any bank of target stock s in this period ($Trading_{st}$), all scaled by 1,000 over the market capitalization of stock s. For the weights we use the $Intensity_{aby-1}$ of the connection between the trading bank b and the target advisor a, which is defined as the respective bank b's number of joint syndicated loans with the target advisor in the year prior to the announcement (year $y-1$) relative to the

total number of syndicated loans granted by the target advisor in the same period:

$$Informed\ Trading\ Exposure_d = \frac{\sum_b \sum_{t \in T(30)} Intensity_{aby-1} \times Trading_{bst}}{\sum_{t \in T(30)} Trading_{st}} \Big/ \frac{1,000}{MarketCap_s}.$$

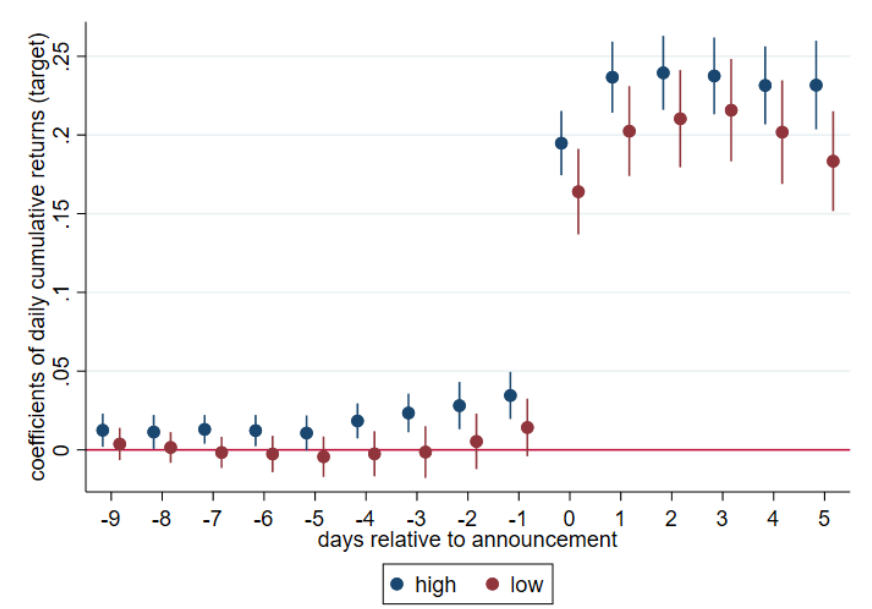

Figure 4: **Cumulative Returns of Target Stocks around Takeovers—High vs. Low Informed Trading Exposure.** The figure shows the point estimates and 95% confidence intervals for 9 days prior to the announcement and 5 days afterwards, based on the following regression specification: $Return\ (cumulative)_{st} = \beta_t \sum_{t=-9}^{5} Takeover_{st} + \delta_t + \gamma_s + \varepsilon_{st}$, on a sample at the security-date level from 30 days prior to 5 days after the announcement, separately for targets with above-median vs. below-median values of $Informed\ Trading\ Exposure_d$. Standard errors are double-clustered at the security and date level.

In Figure 4, we decompose the observed run-up in targets' stock prices ahead of takeover announcements (see Figure 1) for targets with above-median vs. below-median values of *Informed Trading Exposure*$_d$. Doing so, we find that not only is the run-up more pronounced for targets whose stocks are traded more actively by banks closely connected to the target advisor, but also the level of post-announcement returns.

In order to test whether this also translates into higher deal premia, we estimate the relationship between the 30-day offer premium and the relative trading volume in the target stocks by banks connected to the target advisor. More precisely, we use the offer premium of deal d,

$Premium_d$, defined as

$$Premium_d = \frac{Offer\,Price_{st} - Price_{st-30}}{Price_{st-30}},$$

and regress it on $Informed\,Trading\,Exposure_d$.

Since our previous analysis has shown that most of the transactions of informed traders occur 15 days before the announcement (Table 8), we hypothesize that the price 30 days before the announcement is not significantly affected by information leakage. Hence, if the dissemination of private information about an imminent merger indeed drives up the offer price, this should be captured by a higher 30-day offer premium.

The final sample consists of M&A deals between 2010 and 2016. Descriptive statistics of the main dependent and explanatory variables are shown in Panel D of Table 1. Our sample contains 1,079 takeovers (for which we have information on the target side), of which 90% are effective and 7% are labeled as competing offers. Note that our sample is smaller when using the offer premium as dependent variable, as we truncate deal premia below zero and above 200% (Officer, 2003).

Table 12 summarizes our regression results. Column 1 reveals that without any additional controls, there is a positive correlation between the offer premium and the transaction volume of traders closely connected to the target advisor. This suggests that, indeed, by disseminating information about an imminent merger to connected traders, the target advisor can help achieve a higher offer premium.

The trading volume of connected traders could also be elevated simply because there are (already) announced competing offers for the target, inducing banks to buy the stocks of the target without having private information. To account for this, we control for an indicator variable, $Competing\,Offer_d$, which equals 1 in case we record more than one bid per target security within one year. As can be seen in column 2, our estimate is robust to including this control variable.

Our results are also robust to including year fixed effects in column 3, which control for aggregate trends in offer premia over time. In columns 4-6, we include more granular fixed effects. While our coefficient of interest becomes insignificant and smaller in size when controlling for time-varying unobserved heterogeneity at the country level (column 4), it increases somewhat when incorporating target-industry by year fixed effects (column 5). This precludes that our results simply reflect merger waves in certain industries. What is more, in column 6, the economic significance of our estimate increases further, while it falls just short of being statistically significant at the 10% level, after including target advisor by year fixed effects. This attests to the idea that our results are not a mere artefact of certain advisors gaining market share or other particular expertise at driving up offer premia.

While leaking information about an imminent merger to connected traders might help drive up the offer premium for target shareholders, a higher price prior to the announcement also increases the acquisition costs and, as such, might compromise the chances that a takeover is actually completed. This would, in turn, also diminish expected revenues accruing to the target advisor as advisory fees are tend to be conditional on a takeover being successful (McLaughlin, 1990).

To test whether elevated trading activity of traders that are connected to the target advisor reduces the probability that a takeover is successful, we estimate a linear probability model on the sample of all successful *and* failed bids. For this purpose, we use the same regression specification as before, but replace the dependent variable with an indicator variable for a successful bid. As the results in Table 13 highlight,[6] greater trading activity by connected and, thus, presumably better informed traders does not lower the probability that a takeover is actually completed. We even find a statistically, but far from economically, significant positive effect of a larger transaction volume of connected traders on deal success.

In sum, the evidence is in line with the idea that especially target advisors benefit from leaking information about the imminent takeover by driving up the transaction value which is closely

[6]We yield similar estimates when using the same sample as in Table 12, conditional on offer premia between 0 and 200%.

linked to the target advisors' fee income. Interestingly, while more trading activities of informed traders increase the target stock price prior to the announcement, this does not diminish the chances that the takeover is successful, which would also have a negative bearing on the expected revenues of the target advisor. Thus, our findings support the view that the target advisor has an economic incentive to leak information about imminent M&A announcements to connected banks.

9 Conclusion

In this paper, we provide evidence that M&A advisors share private information about imminent takeovers to closely connected banks, and that they do so in an incentive-compatible fashion. We uncover these connections using the network of banks in the international syndicated-loan market. Only target, rather than acquirer, advisors share the information with connected banks that purchase additional target stocks before the announcement and, as such, at lower prices. These effects are more emphasized when takeover announcements are associated with higher announcement returns, which is the case when deals are completed faster or are in cash. The additional pre-announcement demand drives up the pre-announcement price and thereby contributes to a higher offer premium without diminishing the probability of a successful takeover bid. Information leakage thus benefits target shareholders and ultimately the target advisor, reflecting the idea that bank networks aid the establishment of mutually beneficial relations.

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Tables

Table 1: **Summary Statistics:** Panel A presents summary statistics at the bank level, for all German banks with a trading book that are also active in syndicated lending. Panel B presents summary statistics at the M&A deal level, separately for the target (Panel B1) and the acquirer side (Panel B2). Panel C presents summary statistics at the bank-security-date level based on the main regression sample covering 30 days before and after the announcement of a takeover. Panel C1 refers to trading in target securities, and Panel C2 refers to trading in acquirer securities. Panel D presents summary statistics for variables used in our cross-sectional analysis at the deal level.

Panel A: Bank level	Mean	SD	p25	p75	*N*
Total assets (in € bn)	81.37	122.10	3.36	115.74	37
Equity/Assets	.10	.16	.04	.06	37
Stocks/Assets	.05	.07	.01	.06	37
Advisor activity (in SDC)	.59	.50	0	1	37
Panel B1: Deal level (Target)	Mean	SD	p10	p90	*N*
Announcement return [-1,+1]	.20	.24	-.02	.52	963
Length (effective - announcement)	111.81	90.72	30	224	995
Cash structure (any)	.68	.47	0	1	995
Stock bid (pure)	.12	.33	0	1	995
German deal	.04	.18	0	0	995
U.S. deal	.44	.50	0	1	995
Panel B2: Deal level (Acquirer)	Mean	SD	p10	p90	*N*
Announcement return [-1,+1]	.01	.07	-.04	.07	1,956
Length (effective - announcement)	74.29	98.51	0	176	2,057
Cash structure (any)	.54	.50	0	1	2,057
Stock bid (pure)	.06	.25	0	0	2,057
German deal	.03	.18	0	0	2,057
U.S. deal	.45	.50	0	1	2,057
Panel C1: Trading level (Target)	Mean	SD	p10	p90	*N*
sgn(ln(|Net nominal|)	.29	7.44	-9.13	9.21	21,065
Buy (1 if net nominal > 0, else 0)	.49	.50	0	1	21,781
Intensity (Target Adv $\rightarrow$ Trader)	.05	.10	0	.15	21,781
Intensity (Acquirer Adv $\rightarrow$ Trader)	.04	.10	0	.15	21,781
Intensity (Trader $\rightarrow$ Target Adv)	.07	.13	0	.29	21,781
Intensity (Trader $\rightarrow$ Acquirer Adv)	.08	.14	0	.32	21,781
Panel C2: Trading level (Acquirer)	Mean	SD	p10	p90	*N*
sgn(ln(|Net nominal|)	.16	7.19	-8.84	8.93	79,278
Buy (1 if net nominal > 0, else 0)	.48	.50	0	1	81,583
Intensity (Target Adv $\rightarrow$ Trader)	.04	.10	0	.14	81,583
Intensity (Acquirer Adv $\rightarrow$ Trader)	.03	.09	0	.13	81,583
Intensity (Trader $\rightarrow$ Target Adv)	.05	.11	0	.25	81,583
Intensity (Trader $\rightarrow$ Acquirer Adv)	.05	.12	0	.27	81,583
Panel D: Cross-section (Target)	Mean	SD	p10	p90	*N*
Effective	.90	.29	1	1	1,079
Informed trading exposure	2.68	20.56	0	3.98	1,079
Competing offer	.07	.26	0	0	1,079
Premium (truncated, in %)	28.17	29.93	2.9	65.3	365

Table 2: **Effect of Bank Connectedness to Advisor on Stock Trading:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., security *s* traded by bank *b* at date *t* with daily frequency. It contains trading in securities 30 days before and after an M&A announcement of the given security. $Pre\text{-}Announcement30_{st}$ equals 1 for days within 30 days prior to an M&A announcement of security *s*, and 0 otherwise. $Intensity_{abt-1y}$ in the sense of advisor $a \rightarrow$ bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by advisor *a* in the year prior to the deal announcement of security *s*. The dependent variable is $\text{sgn}(\ln(|Net\,nominal_{bst}|))$. For positive net nominal amounts, it is calculated as the natural logarithm of the net nominal traded by bank *b* in security *s* at date *t*. For negative net nominal amounts, the natural logarithm is calculated for the absolute value and then multiplied by -1. Specifications vary by their focus on target stocks (T) [columns 1-6]/acquirer stocks (A) [columns 7-8], $Intensity_{abt-1y}$ (type of advisor and direction), and fixed effects. Standard errors are double-clustered at the bank (trader) and security level.

$\text{sgn}(\ln(\lvert Net\,nominal_{bst}\rvert))$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y}$	5.536***	4.972***	5.386***	3.061	5.363**	2.303	0.359	-0.808
	(4.50)	(3.62)	(3.27)	(1.32)	(2.54)	(1.30)	(0.43)	(-0.78)
$Intensity_{abt-1y}$	-1.187	-1.198	1.785	-1.201	0.065	-0.378	0.004	0.503
	(-1.10)	(-1.02)	(1.04)	(-0.56)	(0.04)	(-0.30)	(0.01)	(0.49)
$Pre\text{-}Announcement30_{st}$	0.042							
	(0.25)							
N	20,937	13,205	6,141	6,141	6,141	6,141	48,882	48,882
R^2	0.135	0.262	0.633	0.631	0.632	0.631	0.531	0.531
Trader FE	✓	✓	-	-	-	-	-	-
Security FE	✓	-	-	-	-	-	-	-
Date FE	✓	-	-	-	-	-	-	-
Security-Date FE	-	✓	✓	✓	✓	✓	✓	✓
Trader-Date FE	-	-	✓	✓	✓	✓	✓	✓
SE Cluster	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security
Target (T)/Acquirer (A) stock	T	T	T	T	T	T	A	A
$Intensity_{abt-1y}$	Target Adv → Trader	Target Adv → Trader	Target Adv → Trader	Acquirer Adv → Trader	Trader → Target Adv	Trader → Acquirer Adv	Target Adv → Trader	Acquirer Adv → Trader

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 3: **Effect of Bank Connectedness to Advisor on Stock Purchases:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., security *s* traded by bank *b* at date *t* with daily frequency. It contains trading in securities 30 days before and after an M&A announcement of the given security. $Pre\text{-}Announcement30_{st}$ equals 1 for days within 30 days prior to an M&A announcement of security *s*, and 0 otherwise. $Intensity_{abt-1y}$ in the sense of advisor $a \rightarrow$ bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by advisor *a* in the year prior to the deal announcement of security *s*. The dependent variable is Buy_{bst}, which equals 1 for a positive net nominal amount traded by bank *b* in security *s* at date *t*, and 0 otherwise. Specifications vary by their focus on target stocks (T) [columns 1-6]/acquirer stocks (A) [columns 7-8], $Intensity_{abt-1y}$ (type of advisor and direction), and fixed effects. Standard errors are double-clustered at the bank (trader) and security level.

Buy_{bst} (1 if net nominal >0, else 0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y}$	0.369***	0.312***	0.258**	0.172	0.289**	0.066	0.014	-0.021
	(4.86)	(3.70)	(2.63)	(1.09)	(2.64)	(0.64)	(0.28)	(-0.29)
$Intensity_{abt-1y}$	-0.094	-0.078	0.148	-0.001	0.016	0.045	-0.023	0.028
	(-1.31)	(-1.02)	(1.30)	(-0.01)	(0.17)	(0.59)	(-0.59)	(0.54)
$Pre\text{-}Announcement30_{st}$	-0.011							
	(-0.99)							
N	21,658	13,737	6,615	6,615	6,615	6,615	50,994	50,994
R^2	0.143	0.284	0.646	0.645	0.646	0.645	0.538	0.538
Trader FE	✓	✓	-	-	-	-	-	-
Security FE	✓	-	-	-	-	-	-	-
Date FE	✓	-	-	-	-	-	-	-
Security-Date FE	-	✓	✓	✓	✓	✓	✓	✓
Trader-Date FE	-	-	✓	✓	✓	✓	✓	✓
SE Cluster	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security
Target (T)/Acquirer (A) stock	T	T	T	T	T	T	A	A
$Intensity_{abt-1y}$	Target Adv → Trader	Target Adv → Trader	Target Adv → Trader	Acquirer Adv → Trader	Trader → Target Adv	Trader → Acquirer Adv	Target Adv → Trader	Acquirer Adv → Trader

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 4: **Effect of Bank Connectedness to Target vs. Acquirer Advisor on Stock Trading:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., security *s* traded by bank *b* at date *t* with daily frequency. It contains trading in securities 30 days before and after an M&A announcement of the given security. $Pre\text{-}Announcement30_{st}$ equals 1 for days within 30 days prior to an M&A announcement of security *s*, and 0 otherwise. $Intensity_{abt-1y}$ in the sense of (target/acquirer) advisor $a \rightarrow$ bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by (target/acquirer) advisor *a* in the year prior to the deal announcement of security *s*. The dependent variable in columns 1-2 is $\text{sgn}(\ln(|Net\ nominal_{bst}|))$. For positive net nominal amounts, it is calculated as the natural logarithm of the net nominal traded by bank *b* in security *s* at date *t*. For negative net nominal amounts, the natural logarithm is calculated for the absolute value and then multiplied by -1. In columns 3-4, the dependent variable is Buy_{bst}, which equals 1 for a positive net nominal amount traded by bank *b* in security *s* at date *t*, and 0 otherwise. Specifications vary by their focus on target stocks (T) [columns 1 and 3]/acquirer stocks (A) [columns 2 and 4] and fixed effects. Standard errors are double-clustered at the bank (trader) and security level.

	$\text{sgn}(\ln(\lvert Net\ nominal_{bst}\rvert))$		Buy_{bst} (1 if net nominal > 0, else 0)	
	(1)	(2)	(3)	(4)
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y}$ (Target Adv $\rightarrow$ Trader)	6.204***	0.768	0.317**	0.045
	(3.08)	(0.83)	(2.69)	(0.87)
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y}$ (Acquirer Adv $\rightarrow$ Trader)	-1.658	-1.170	-0.065	-0.043
	(-0.68)	(-1.01)	(-0.34)	(-0.63)
$Intensity_{abt-1y}$ (Target Adv $\rightarrow$ Trader)	1.405	-0.202	0.200	-0.027
	(0.80)	(-0.26)	(1.69)	(-0.63)
$Intensity_{abt-1y}$ (Acquirer Adv $\rightarrow$ Trader)	1.066	0.668	0.140	0.038
	(0.54)	(0.63)	(1.16)	(0.60)
N	6,141	48,882	6,367	49,587
R^2	0.633	0.531	0.649	0.535
Security-Date FE	✓	✓	✓	✓
Trader-Date FE	✓	✓	✓	✓
SE Cluster	Trader, Security	Trader, Security	Trader, Security	Trader, Security
Target (T)/Acquirer (A) stock	T	A	T	A

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 5: **Effect of Bank Connectedness to Target Advisor on Target Stock Trading—Robustness:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., target security *s* traded by bank *b* at date *t* with daily frequency. The sample in columns 1-2 and 5-11 contains trading in securities 30 days before and after an M&A announcement of the given target security. In column 2, German takeovers are excluded. In columns 3-4, the sample takes trading in all securities into account by replacing missing intensities with 0 (balanced sample). $Pre\text{-}Announcement30_{st}$ equals 1 for days within 30 days prior to an M&A announcement of security *s*, and 0 otherwise. $Intensity_{abt-1y}$ in the sense of advisor *a* $\rightarrow$ bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by advisor *a* in the year prior to the deal announcement of security *s*. Across columns 7-11, the definition of $Intensity_{abt-1y}$ varies as follows. Intensity *overall* is the maximum intensity between trader and advisor, irrespective of direction and type of advisor. Intensity *target (acquirer)* is the maximum of target (acquirer) advisor $\rightarrow$ trader and trader $\rightarrow$ target (acquirer) advisor. Intensity *advisor* is the maximum of target advisor $\rightarrow$ trader and acquirer advisor $\rightarrow$ trader. Intensity *trader* is the maximum of trader $\rightarrow$ target advisor and trader $\rightarrow$ acquirer advisor. The relevant period for the calculation always refers to the year prior to the deal announcement. The dependent variable is $\text{sgn}(\ln(|Net\,nominal_{bst}|))$. For positive net nominal amounts, it is calculated as the natural logarithm of the net nominal traded by bank *b* in security *s* at date *t*. For negative net nominal amounts, the natural logarithm is calculated for the absolute value and then multiplied by -1. Specifications vary by $Intensity_{abt-1y}$ and fixed effects. Industry-level fixed effects in columns 5 and 6 are based on security *s*'s two-digit industry code. Standard errors are double-clustered at the bank (trader) and security level.

$\text{sgn}(\ln(\lvert Net\,nominal_{bst}\rvert))$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y}$	10.454***	6.589*	4.770***	4.050***	14.829***	31.175**	3.111**	4.645***	1.190	4.521**	3.759**
	(3.22)	(1.97)	(3.21)	(2.88)	(2.85)	(3.04)	(2.21)	(3.17)	(0.85)	(2.42)	(2.20)
$Intensity_{abt-1y}$	3.572	1.699	-2.780**	-1.610	-5.990*	-25.947**	0.895	1.688	0.236	1.547	-0.758
	(0.16)	(0.53)	(-2.33)	(-1.34)	(-2.02)	(-2.67)	(0.61)	(1.09)	(0.19)	(0.89)	(-0.60)
N	6,141	2,840	7,064,681	7,035,796	5,749	432	6,141	6,141	6,141	6,141	6,141
R^2	0.698	0.696	0.293	0.310	0.696	0.679	0.632	0.633	0.631	0.632	0.632
Trader-Date FE	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓
Trader-Industry-Pre-Announcement FE	-	-	-	-	✓	-	-	-	-	-	-
Trader-Industry-Date FE	-	-	-	-	-	✓	-	-	-	-	-
Security-Date FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Trader-Advisor FE	✓	-	-	-	-	-	-	-	-	-	-
Trader-Security FE	-	-	-	✓	-	-	-	-	-	-	-
SE Cluster	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security
Sample adjustment	-	DE deals excluded	Filled	Filled	-	-	-	-	-	-	-
$Intensity_{abt-1y}$	Target Adv $\rightarrow$ Trader	Target Adv $\rightarrow$ Trader	Target Adv $\rightarrow$ Trader	Target Adv $\rightarrow$ Trader	Target Adv $\rightarrow$ Trader	Target Adv $\rightarrow$ Trader	Overall	Target	Acquirer	Advisor	Trader

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 6: **Effect of Bank Connectedness to Target Advisor on Target Stock Trading—Deal Heterogeneity:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., target security *s* traded by bank *b* at date *t* with daily frequency. It contains trading in securities 30 days before and after an M&A announcement of the given target security. $Pre\text{-}Announcement30_{st}$ equals 1 for days within 30 days prior to an M&A announcement of security *s*, and 0 otherwise. $Intensity_{abt-1y}$ in the sense of target advisor $a \rightarrow$ bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by target advisor *a* in the year prior to the deal announcement of security *s* (Target Adv $\rightarrow$ Trader). The dependent variable is $\text{sgn}(\ln(|Net\ nominal_{bst}|)$. For positive net nominal amounts, it is calculated as the natural logarithm of the net nominal traded by bank *b* in security *s* at date *t*. For negative net nominal amounts, the natural logarithm is calculated for the absolute value and then multiplied by -1. Deal heterogeneity is characterized by announcement returns (columns 1-2), length (columns 3-4), and the medium of exchange (columns 5-6). Return refers to the target's announcement return (announcement date -1 day, +1 day), and is split by the median into high (column 1) and low returns (column 2). Length refers to the period between effective and announcement date, and is split into $\leq$120 (column 3) and >120 days (column 4). In column 5, only deals with non-zero cash components are taken into account, whereas column 6 considers only pure stock bids. Standard errors are double-clustered at the bank (trader) and security level.

	High return	Low return	Length ≤ 120	Length > 120	Cash structure	Stock bid
$\text{sgn}(\ln(\lvert Net\ nominal_{bst}\rvert)$	(1)	(2)	(3)	(4)	(5)	(6)
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y}$	5.918***	3.743	7.725**	-0.837	7.162***	-2.569
	(3.11)	(0.71)	(2.48)	(-0.16)	(4.38)	(-0.65)
$Intensity_{abt-1y}$	2.775	4.454	2.849	-4.741	-0.983	6.867
	(0.55)	(0.92)	(0.68)	(-0.81)	(-0.53)	(1.37)
N	1,775	2,070	2,266	857	8,310	1,151
R^2	0.691	0.659	0.631	0.721	0.269	0.379
Security-Date FE	✓	✓	✓	✓	✓	✓
Trader-Date FE	✓	✓	✓	✓	-	-
Trader FE	-	-	-	-	✓	✓
SE Cluster	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 7: **Effect of Bank Connectedness to Advisor on Target Stock Trading—Timing:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., target security *s* traded by bank *b* at date *t* with daily frequency. It contains trading in securities *X* days before and after an M&A announcement of the given target security. $Pre\text{-}AnnouncementX_{st}$ equals 1 for days within *X* days prior to an M&A announcement of security *s*, and 0 otherwise, where *X* equals 15 days in columns 1 and 6, 30 days in columns 2 and 7, 60 days in columns 3 and 8, and 100 days in columns 4 and 9. Time-period definitions used in columns 5 and 10 are disjoint. $Intensity_{abt-1y}$ in the sense of target advisor $a \rightarrow$ bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by target advisor *a* in the year prior to the deal announcement of security *s* (Target Adv $\rightarrow$ Trader). The dependent variable in columns 1-5 is $\text{sgn}(\ln(|Net\,nominal_{bst}|))$. For positive net nominal amounts, it is calculated as the natural logarithm of the net nominal traded by bank *b* in security *s* at date *t*. For negative net nominal amounts, the natural logarithm is calculated for the absolute value and then multiplied by -1. The dependent variable in columns 6-10 is Buy_{bst}, which equals 1 for a positive net nominal amount traded by bank *b* in security *s* at date *t*, and 0 otherwise. Standard errors are double-clustered at the bank (trader) and security level.

	$\text{sgn}(\ln(\lvert Net\,nominal_{bst}\rvert))$					Buy_{bst} (1 if net nominal > 0, else 0)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$Pre\text{-}Announcement15_{st} \times Intensity_{abt-1y}$	11.891***					0.572**				
	(2.95)					(2.37)				
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y}$		5.386***					0.252***			
		(3.26)					(3.01)			
$Pre\text{-}Announcement60_{st} \times Intensity_{abt-1y}$			3.420***					0.239***		
			(2.94)					(3.37)		
$Pre\text{-}Announcement100_{st} \times Intensity_{abt-1y}$				2.587**					0.146**	
				(2.41)					(2.19)	
$Pre\text{-}Announcement15_{st} \times Intensity_{abt-1y}$					5.643***					0.281**
					(3.14)					(2.43)
$Pre\text{-}Announcement30_{st}(disjoint) \times Intensity_{abt-1y}$					4.363*					0.355**
					(1.75)					(2.44)
$Pre\text{-}Announcement60_{st}(disjoint) \times Intensity_{abt-1y}$					1.766					0.100
					(1.04)					(1.09)
$Pre\text{-}Announcement100_{st}(disjoint) \times Intensity_{abt-1y}$					1.060					0.032
					(0.62)					(0.34)
$Intensity_{abt-1y}$	-3.545	1.785	1.067	-1.131	-1.159	-0.246	0.239**	0.063	-0.054	-0.057
	(-1.03)	(1.03)	(0.82)	(-0.93)	(-0.95)	(-0.94)	(2.35)	(0.78)	(-0.78)	(-0.83)
N	2,300	6,141	13,784	22,018	22,018	2,380	6,367	14,178	22,535	22,535
R^2	0.699	0.633	0.597	0.575	0.575	0.700	0.648	0.604	0.581	0.581
Trader-Date FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Security-Date FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SE Cluster	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 8: **Effect of Bank Connectedness to Target Advisor on Target Stock Trading—Timing and Discrete Intensity:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., target security *s* traded by bank *b* at date *t* with daily frequency. It contains trading in securities X days before and after an M&A announcement of the given target security. $Pre\text{-}AnnouncementX_{st}$ equals 1 for days within X days prior to an M&A announcement of security *s*, and 0 otherwise, where X equals 15 days in columns 1 and 6, 30 days in columns 2 and 7, 60 days in columns 3 and 8, and 100 days in columns 4 and 9. Time-period definitions used in columns 5 and 10 are disjoint. $Relationship_{abt-1y}$ equals 1 if $Intensity_{abt-1y} > 0$, where $Intensity_{abt-1y}$ in the sense of target advisor $a \rightarrow$ bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by target advisor *a* in the year prior to the deal announcement of security *s* (Target Adv $\rightarrow$ Trader), and 0 otherwise. The dependent variable in columns 1-5 is $\text{sgn}(\ln(|Net\ nominal_{bst}|))$. For positive net nominal amounts, it is calculated as the natural logarithm of the net nominal traded by bank *b* in security *s* at date *t*. For negative net nominal amounts, the natural logarithm is calculated for the absolute value and then multiplied by -1. The dependent variable in columns 6-10 is Buy_{bst}, which equals 1 for a positive net nominal amount traded by bank *b* in security *s* at date *t*, and 0 otherwise. Standard errors are double-clustered at the bank (trader) and security level.

	$\text{sgn}(\ln(\lvert Net\ nominal_{bst}\rvert))$					Buy_{bst} (1 if net nominal > 0, else 0)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$Pre\text{-}Announcement15_{st} \times Relationship_{abt-1y}$	2.433**					0.150**				
	(2.36)					(2.59)				
$Pre\text{-}Announcement30_{st} \times Relationship_{abt-1y}$		0.799					0.040			
		(1.53)					(1.26)			
$Pre\text{-}Announcement60_{st} \times Relationship_{abt-1y}$			0.335					0.041**		
			(1.09)					(2.16)		
$Pre\text{-}Announcement100_{st} \times Relationship_{abt-1y}$				0.160					0.014	
				(0.49)					(0.74)	
$Pre\text{-}Announcement15_{st} \times Relationship_{abt-1y}$					0.757*					0.041
					(1.86)					(1.42)
$Pre\text{-}Announcement30_{st}(disjoint) \times Relationship_{abt-1y}$					0.145					0.013
					(0.35)					(0.41)
$Pre\text{-}Announcement60_{st}(disjoint) \times Relationship_{abt-1y}$					0.080					0.026
					(0.14)					(0.87)
$Pre\text{-}Announcement100_{st}(disjoint) \times Relationship_{abt-1y}$					0.006					-0.005
					(0.01)					(-0.18)
$Relationship_{abt-1y}$	-0.265	0.827*	0.621**	0.430	0.426	-0.035	0.052*	0.027	0.018	0.018
	(-0.31)	(1.73)	(2.28)	(1.45)	(1.44)	(-0.77)	(1.91)	(1.68)	(1.09)	(1.07)
N	2,300	6,141	15,161	28,289	28,289	2,380	6,367	15,571	28,943	28,943
R^2	0.699	0.632	0.590	0.553	0.553	0.700	0.648	0.596	0.562	0.562
Trader-Date FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Security-Date FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SE Cluster	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 9: **Trading by Advisors:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., security *s* traded by bank *b* at date *t* with daily frequency. It contains trading in securities 30 days before and after an M&A announcement of the given security (columns 1-4). In addition, the sample in columns 5-8 excludes trades by non-advisors that are connected to any non-zero extent to either one of the advisors (i.e., any $Intensity_{abt-1y} > 0$). $Pre\text{-}Announcement30_{st}$ equals 1 for days within 30 days prior to an M&A announcement of security *s*, and 0 otherwise. $Advisor_{bst}$ equals 1 if trader *b* is the target (acquirer) advisor of a deal involving security *s* in columns 1, 3, 5, and 7 (2, 4, 6, and 8), and 0 otherwise. The dependent variable is $\text{sgn}(\ln(|Net\ nominal_{bst}|))$. For positive net nominal amounts, it is calculated as the natural logarithm of the net nominal traded by bank *b* in security *s* at date *t*. For negative net nominal amounts, the natural logarithm is calculated for the absolute value and then multiplied by -1. Specifications vary by their focus on target stocks (T) [columns 1-2 and 5-6]/acquirer stocks (A) [columns 3-4 and 7-8], and the underlying sample restriction. Standard errors are double-clustered at the bank (trader) and security level.

$\text{sgn}(\ln(\lvert Net\ nominal_{bst}\rvert))$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$Pre\text{-}Announcement30_{st} \times Advisor_{bst}$	-3.344***	2.387	-1.598	-1.297	-3.492	-5.854	-1.704	-1.338
	(-4.51)	(1.23)	(-0.47)	(-0.85)	(-1.21)	(-0.82)	(-0.44)	(-0.85)
$Advisor_{bst}$	0.936*	-0.793	1.658	-1.150	4.072***	9.227***	0.906	-1.617*
	(1.81)	(-1.15)	(1.37)	(-1.30)	(3.08)	(2.87)	(0.61)	(-1.83)
N	6,496	6,496	49,675	49,675	3,479	3,479	39,553	39,553
R^2	0.625	0.625	0.527	0.527	0.633	0.633	0.549	0.550
Trader-Date FE	✓	✓	✓	✓	✓	✓	✓	✓
Security-Date FE	✓	✓	✓	✓	✓	✓	✓	✓
SE Cluster	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security
Excl. non-advisors with $Intensity_{abt-1y} > 0$	-	-	-	-	✓	✓	✓	✓
Target (T)/Acquirer (A) stock	T	T	A	A	T	T	A	A
$Advisor_{bst}$	Target Adv.	Acquirer Adv.	Target Adv.	Acquirer Adv.	Target Adv.	Acquirer Adv.	Target Adv.	Acquirer Adv.

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 10: **Effect of Bank Connectedness to Advisor on Stock Trading—Target Competitors:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., security *s* traded by bank *b* at date *t* with daily frequency. It contains trading in securities 30 days before and after an M&A announcement. The sample focuses on trading in the stocks of competitors of the target involved in the respective takeover. Five competitors with the highest stock-return correlations with the target security three years prior to deal announcement ($Corr_{st}$) are considered. Competitors directly involved in the M&A transaction as the acquirer are excluded. $HighCorr_{st}$ equals 1 for competitors of the target security if $Corr_{st}$ is above the median, and 0 otherwise. $Pre\text{-}Announcement30_{st}$ equals 1 for competitor securities *s* for days within 30 days prior to an M&A announcement of the target security, and 0 otherwise. $Intensity_{abt-1y}$ in the sense of advisor $a \rightarrow$ bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by advisor *a* in the year prior to the deal announcement of the target security. The dependent variable in columns 1-4 is $\text{sgn}(\ln(|Net\,nominal_{bst}|))$. For positive net nominal amounts, it is calculated as the natural logarithm of the net nominal traded by bank *b* in security *s* at date *t*. For negative net nominal amounts, the natural logarithm is calculated for the absolute value and then multiplied by -1. The dependent variable in columns 5-8 is Buy_{bst}, which equals 1 for a positive net nominal amount traded by bank *b* in security *s* at date *t*, and 0 otherwise. Specifications vary by $Intensity_{abt-1y}$ (type of advisor). Standard errors are double-clustered at the bank (trader) and security level.

	$\text{sgn}(\ln(\lvert Net\,nominal_{bst}\rvert))$				Buy_{bst} (1 if net nominal > 0, else 0)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y}$	-3.357**	0.335	-6.202***	-16.610***	-0.225**	-0.042	-0.430***	-1.096***
	(-2.66)	(0.17)	(-3.36)	(-3.21)	(-2.50)	(-0.36)	(-3.37)	(-2.97)
$Intensity_{abt-1y}$	1.985	0.521	3.934*	14.469***	0.086	0.068	0.235	0.947***
	(1.18)	(0.23)	(1.72)	(3.28)	(0.75)	(0.50)	(1.41)	(3.22)
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y} \times HighCorr_{st}$			6.455***				0.463***	
			(2.66)				(2.74)	
$Intensity_{abt-1y} \times HighCorr_{st}$			-3.668				-0.281*	
			(-1.65)				(-1.76)	
$Pre\text{-}Announcement30_{st} \times Intensity_{abt-1y} \times Corr_{st}$				26.813***				1.758**
				(2.85)				(2.54)
$Intensity_{abt-1y} \times Corr_{st}$				-24.549***				-1.696***
				(-3.39)				(-3.68)
N	18,116	18,116	18,116	18,116	18,730	18,730	18,730	18,730
R^2	0.574	0.574	0.574	0.574	0.577	0.577	0.577	0.577
Security-Date FE	✓	✓	✓	✓	✓	✓	✓	✓
Trader-Date FE	✓	✓	✓	✓	✓	✓	✓	✓
SE Cluster	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security	Trader, Security
$Intensity_{abt-1y}$	Target Adv → Trader	Acquirer Adv → Trader	Target Adv → Trader	Target Adv → Trader	Target Adv → Trader	Acquirer Adv → Trader	Target Adv → Trader	Target Adv → Trader

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 11: **Effect of Bank Connectedness to Target Advisor on Target Stock Prices Paid:** The sample is a panel at the bank (trader) - security - date level *bst* from 2010 to 2016, i.e., target security *s* traded by bank *b* at date *t* with daily frequency. It contains purchases of securities 30 days before and after an M&A announcement of the given target security. $Intensity_{abt-1y}$ in the sense of advisor *a* $\rightarrow$ bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by advisor *a* in the year prior to the deal announcement of security *s* (Target Adv $\rightarrow$ Trader). The dependent variable, $Price\ (vol.wgt.)_{bst}$, is the volume-weighted price paid by trader *b* for a given security *s* at date *t*. All regressions control for the natural logarithm of the nominal amount purchased and the number of trades. Standard errors are double-clustered at the bank (trader) and security level.

$Price\ (vol.wgt.)_{bst}$	(1)	(2)	(3)	(4)	(5)
$Intensity_{abt-1y}$	-4.001**	-6.718**	-1.290*	-1.400*	0.545
	(-2.17)	(-2.06)	(-1.78)	(-1.85)	(0.90)
N	15,865	15,865	15,865	15,853	9,322
R^2	0.914	0.917	0.918	0.942	0.938
Security FE	✓	✓	✓	✓	-
Trader FE	-	✓	✓	-	-
Year FE	-	-	✓	-	-
Trader-Year FE	-	-	-	✓	✓
Security-Date FE	-	-	-	-	✓
Controls	ln(nominal) and number of trades				
SE Cluster	Trader, Security				

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 12: **Effect of Informed Trading on Offer Premia:** The level of observation is the deal level d. The sample contains effective M&A deals between 2010 and 2016. The dependent variable, $Premium_d$, is the premium offered for the acquisition of target *s* at date *t* and defined as $(Offer\ Price_{st} - Price_{st-30})/Price_{st-30}$, where $Price_{st-30}$ denotes the stock price of target *s* 30 days prior to the M&A announcement. We use connected trading 30 days before the deal is announced to construct the explanatory variable, $Informed\ Trading\ Exposure_d$, which is an intensity-weighted exposure measure to informed trading (winsorized at the 1st and 99th percentile, and scaled by 1,000 over the market capitalization of stock s): $\sum_s \sum_{t\in T(30)} (Intensity_{abt-1y} \times Trading_{bst}) / \left(\sum_{t\in T(30)} Trading_{st}\right)$, where $Intensity_{abt-1y}$ in the sense of target advisor *a* → bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by target advisor *a* in the year prior to the deal announcement of security *s* (Target Adv → Trader), $Trading_{bst}$ captures all of trading bank b's net purchases of target stock s at date t, and $Trading_{st}$ denotes total net purchases by any bank of target stock s at date t. $Competing\ Offer_d$ is a dummy variable that equals 1 if there exist multiple bids for the respective target of deal d within one year, and 0 otherwise. Fixed effects are based on the interaction between the year of deal d and the target's country of incorporation, two-digit industry, or advisor. Standard errors are clustered at the security level.

$Premium_d$	(1)	(2)	(3)	(4)	(5)	(6)
$Informed\ Trading\ Exposure_d$	0.060**	0.059**	0.059**	0.044	0.094***	0.098
	(2.34)	(2.35)	(2.05)	(0.94)	(2.64)	(1.64)
$Competing\ Offer_d$		-4.425	-1.256	-10.087	-1.012	-16.666***
		(-0.41)	(-0.11)	(-1.24)	(-0.09)	(-2.92)
N	365	365	365	326	289	224
R^2	0.002	0.003	0.053	0.146	0.297	0.230
Year FE	-	-	✓	-	-	-
Country(T)-Year FE	-	-	-	✓	-	-
Industry(T)-Year FE	-	-	-	-	✓	-
Advisor(T)-Year FE	-	-	-	-	-	✓
Deals				Effective		
SE Cluster				Security		

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

Table 13: **Effect of Informed Trading on Deal Success:** The level of observation is the deal level d. The sample contains effective and withdrawn M&A deals between 2010 and 2016. The dependent variable, $Effective_d$, is a dummy variable that equals 1 in case of a successful takeover, and 0 otherwise. We use connected trading 30 days before the deal is announced to construct the explanatory variable, $Informed\,Trading\,Exposure_d$, which is an intensity-weighted exposure measure to informed trading (winsorized at the 1st and 99th percentile, and scaled by 1,000 over the market capitalization of stock s): $\sum_s \sum_{t\in T(30)} (Intensity_{abt-1y} \times Trading_{bst}) / \left(\sum_{t\in T(30)} Trading_{st}\right)$, where $Intensity_{abt-1y}$ in the sense of target advisor *a* → bank (trader) *b* is calculated as the number of joint syndicated loans by *a* and *b* relative to the number of syndicated loans by target advisor *a* in the year prior to the deal announcement of security *s* (Target Adv → Trader), $Trading_{bst}$ captures all of trading bank b's purchases of target stock s at date t, and $Trading_{st}$ denotes total purchases by any bank of target stock s at date t. $Competing\,Offer_d$ is a dummy variable that equals 1 if there exist multiple bids for the respective target of deal d within one year, and 0 otherwise. Fixed effects are based on the interaction between the year of deal d and the target's country of incorporation, two-digit industry, or advisor. Standard errors are clustered at the security level.

$Effective_d$	(1)	(2)	(3)	(4)	(5)	(6)
$Informed\,Trading\,Exposure_d$	0.001***	0.000***	0.000***	0.001**	0.000*	0.001**
	(3.83)	(3.06)	(2.84)	(2.56)	(1.85)	(1.99)
$Competing\,Offer_d$		-0.523***	-0.524***	-0.535***	-0.485***	-0.462***
		(-17.37)	(-17.53)	(-15.94)	(-14.28)	(-9.49)
N	1,079	1,079	1,079	1,004	981	782
R^2	0.002	0.222	0.225	0.308	0.366	0.495
Year FE	-	-	✓	-	-	-
Country(T)-Year FE	-	-	-	✓	-	-
Industry(T)-Year FE	-	-	-	-	✓	-
Advisor(T)-Year FE	-	-	-	-	-	✓
Deals	Effective and Withdrawn					
SE Cluster	Security					

*** p<0.01, ** p<0.05, * p<0.1
(t-statistics in parentheses)

ONLINE APPENDIX—NOT FOR PUBLICATION

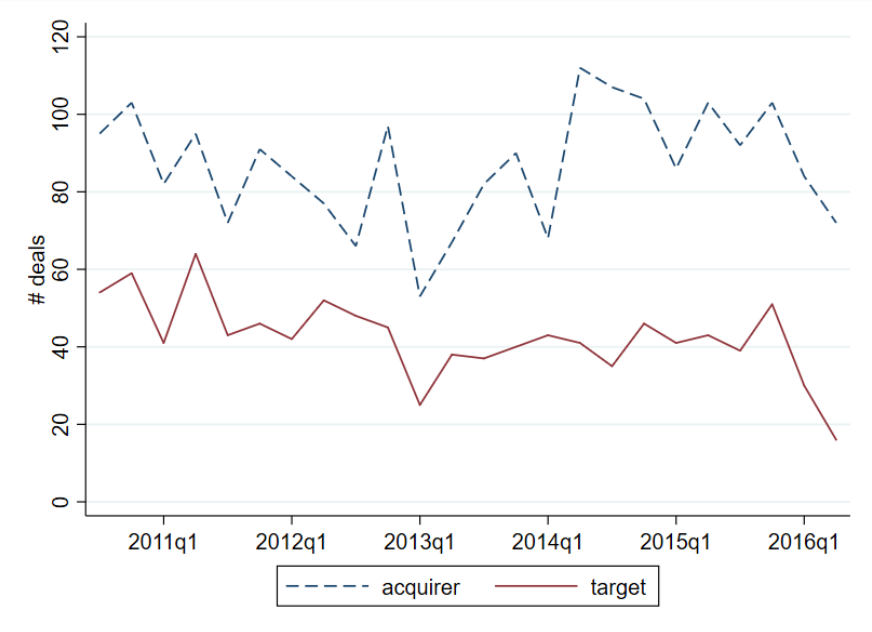

Figure A1: **Evolution of the Number of M&A Deals.** The figure shows the number of M&A deals in our sample between 2010 and 2016 with quarterly frequency. Deals are considered in the quarter of the announcement date. The red solid line represents the number of deals with information available on the target side, whereas the blue dashed line shows the number of deals with information available on the acquirer side.

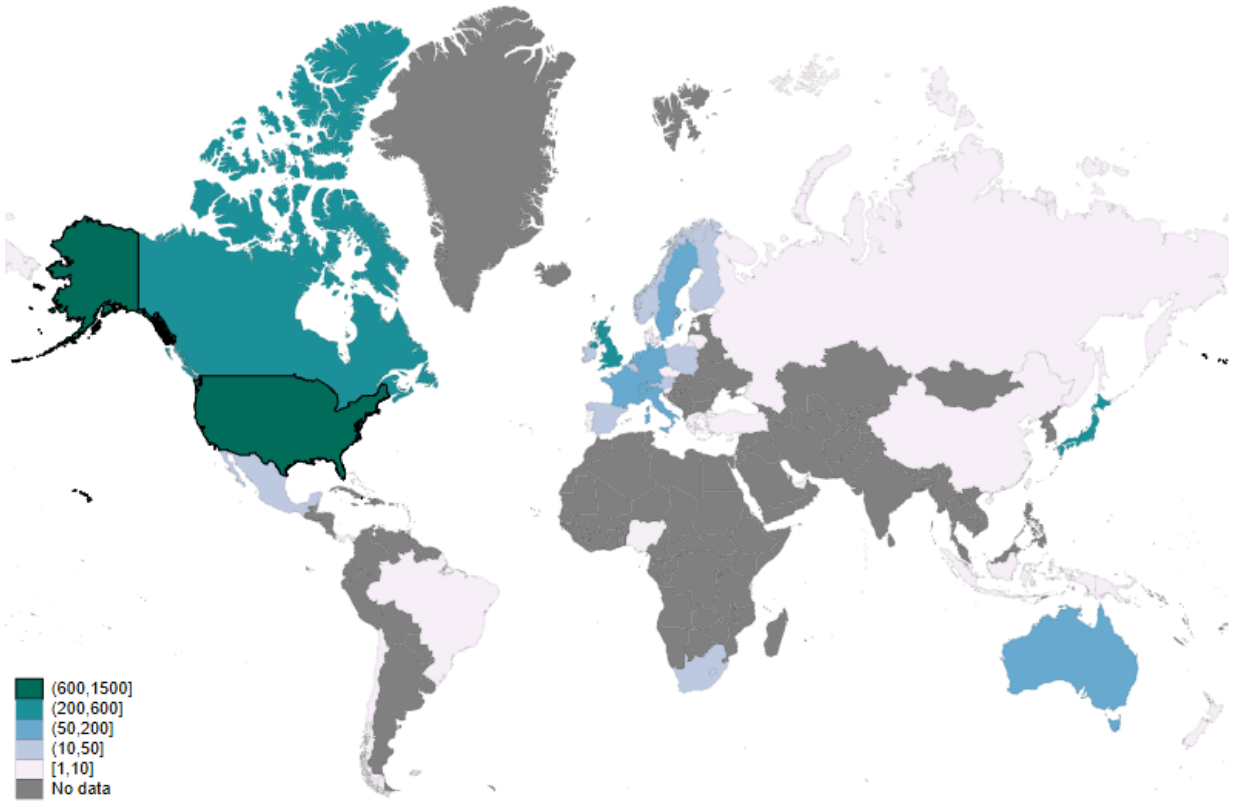

Figure A2: **Geographical Distribution of M&A Deals.** The figure visualizes M&A activity by country. The total number of deals in each country between 2010 and 2016 maps to the color indicated in the legend labels.