

# Information Transmission between Banks and the Market for Corporate Control\*









By Christian Bittner (Deutsche Bundesbank and Goethe University Frankfurt), Falko Fecht (Frankfurt School of Finance and Management), Melissa Pala (Deutsche Bundesbank and Goethe University Frankfurt) and Farzad Saidi (University of Bonn and CEPR)

Keywords: bank networks, trading, information spillover, mergers and acquisitions, syndicated lending. *JEL codes: G11, G15, G21, G24.* 

We provide 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 purchase 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.

<sup>\*</sup>The views expressed are those of the authors and do not necessarily reflect the official views of Deutsche Bundesbank or the Eurosystem. Corresponding author: saidi@uni-bonn.de.

## Transmission of private information

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, 2020, and Leister, 2021), 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 (Kuchler, 2018). While banks' key economic role is typically seen in collecting, processing, and producing private information relevant for financial decisions (Morrison, 2007), little is known about banks' incentives to disseminate private information within their relationship networks and how this affects market outcomes.

In Bittner et al. (2022), we study under what circumstances and how incentives matter for the transmission of private information between banks. We use syndicated-loan networks of banks in conjunction with administrative security-transaction data to infer information flows around the announcement of corporate takeovers. 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. This context helps to identify the source of private information. We make use of the fact that the incentives in passing on information about upcoming transactions vary across target and acquirer stocks as well as advisors.

## Incentives for information spillovers among banks

Our empirical strategy is based on the idea that banks establish (social) ties when engaging jointly in the syndication of loans, and that some of these banks simultaneously act as advisors to target and acquirer firms in M&A transactions. Stronger ties facilitate the exchange of M&A related information between bank pairs. 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 the advisor to the bank, whose proprietary trading we observe, and vice versa.

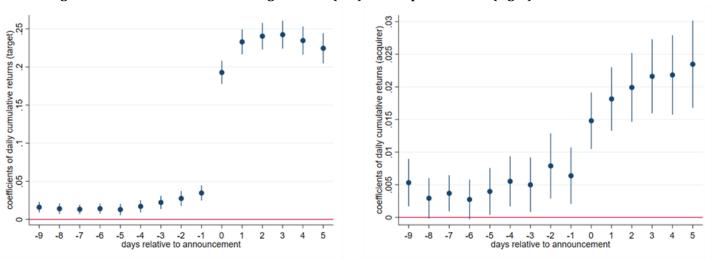


Figure 1: Cumulative Returns of Target Stocks (left) and Acquirer Stocks (right) around Takeovers.

Note: 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:  $Return\ (cumulative)_{st} = \beta_t\ \Sigma^5_{t=9}\ Takeover_{st} + \delta_t + \gamma_s + \varepsilon_{st}$ , 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.

In particular, we can keep constant private information about the imminent merger while exploiting the fact that incentives for leaking this information vary across traded stocks and advisors. This is because announcement returns are positive primarily for target, rather than acquirer, stocks. As can be seen in Figure 1 (left), 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 1, right). 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.

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.

# Connected traders buy target stocks ahead of takeover announcements

We present 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 2 shows that connected traders buy target stocks ahead of takeover announcements, potentially reflecting that they take advantage of private information they have accrued through the target advisor.

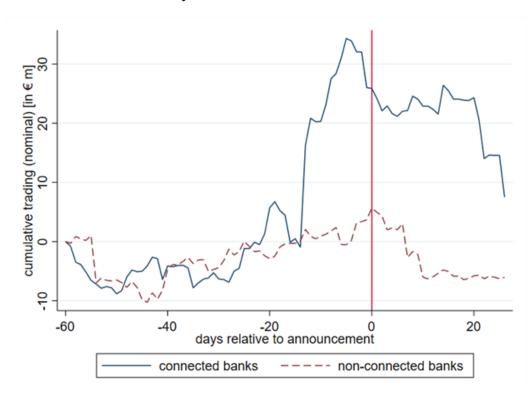


Figure 2: Cumulative Nominal Trading (in € m) in Target Stocks 60 days before and 30 days after the M&A Announcement.

Note: 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.

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. 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. The granularity of our data 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.

A trading bank that is more connected to the target advisor by one standard deviation purchases, on average, 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 permitting the connected bank to buy target stocks ahead of the announcement at relatively low prices and realize trading profits due to the positive announcement return. 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.

## Leakage drives up the offer price without lowering deal success probability

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.

### **Conclusion**

In Bittner et al. (2022), 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.

### References

Bailey, M., Cao R., Kuchler T., Stroebel J. and Wong A. (2018), 'Social Connectedness: Measurement, Determinants and Effects', Journal of Economic Perspectives, 32(3), 259-280.

Bittner, C., Fecht F., Pala M. and Saidi F. (2022), '<u>Information Transmission between Banks and the Market for Corporate Control</u>', Deutsche Bundesbank Discussion Paper 29.

Herskovic, B. and Ramos J. (2020), 'Acquiring Information through Peers', American Economic Review, 110(7), 2128-2152.

Leister, C. M., Zenou Y. and Zhou J. (2021), 'Social Connectedness and Local Contagion', Review of Economic Studies, 89(1), 2128-2152.

Morrison, A. D. and Wilhelm W. J. (2007), 'Investment Banking: Institutions, Politics, and Law', Oxford University Press.

### About the authors

**Christian Bittner** is Economist at Deutsche Bundesbank and a doctoral candidate at Goethe University Frankfurt. He holds an M.Sc. in Economics from University of Glasgow, United Kingdom. His research interests are related to monetary policy, banking and financial intermediation.

**Falko Fecht** is Professor for Financial Economics at the Frankfurt School of Finance & Management and Research Professor for Deutsche Bundesbank. He holds a doctoral degree in Economics from Goethe University Frankfurt, Germany. His research focuses on the theory of financial intermediation and the analysis of financial systems and crises.

**Melissa Pala** is Economist at Deutsche Bundesbank and a doctoral candidate at Goethe University Frankfurt. She holds an M.Sc. in Economics from University of Mainz, Germany. Her research interests are related to banking, financial networks, interbank markets and monetary policy.

**Farzad Saidi** is Professor for Financial Economics at the University of Bonn, Germany. He holds a Ph.D. in Economics from New York University. His research focuses on banking and financial intermediation, monetary policy and corporate finance.

# **SUERF Publications**

Find more **SUERF Policy Briefs** and **Policy Notes** at <u>www.suerf.org/policynotes</u>



SUERF is a network association of central bankers and regulators, academics, and practitioners in the financial sector. The focus of the association is on the analysis, discussion and understanding of financial markets and institutions, the monetary economy, the conduct of regulation, supervision and monetary policy.

SUERF's events and publications provide a unique European network for the analysis and discussion of these and related issues.

SUERF Policy Briefs (SPBs) serve to promote SUERF Members' economic views and research findings as well as economic policy-oriented analyses. They address topical issues and propose solutions to current economic and financial challenges. SPBs serve to increase the international visibility of SUERF Members' analyses and research.

The views expressed are those of the author(s) and not necessarily those of the institution(s) the author(s) is/are affiliated with.

All rights reserved.

Editorial Board
Ernest Gnan
Frank Lierman
David T. Llewellyn
Donato Masciandaro
Natacha Valla

SUERF Secretariat c/o OeNB Otto-Wagner-Platz 3 A-1090 Vienna, Austria Phone: +43-1-40420-7206 www.suerf.org • suerf@oenb.at