

# The Effects of Investment Bank Rankings: Evidence from M&A League Tables\*

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## Abstract

This paper explores how league tables, which are rankings based on market shares, influence the mergers and acquisitions market. A bank's league table rank predicts its future deal flow, above and beyond other determinants. This creates incentives for banks to manage their league table ranks. League table management tools include selling fairness opinions (FOs) and reducing fees. Banks use such tools mostly when their incentives to do so are high: when a transaction affects their league table position or when they lost ranks in recent league tables. League table management seems to affect the quality of FOs.

**JEL classification:** G24, G34

**Keywords:** League tables, Investment banking, Mergers and acquisitions

Received September 29, 2015; accepted January 1, 2017 by Editor Throsten Beck.

## 1. Introduction

League tables are rankings based on banks' market shares. They cover most investment banking activities. They are widely reported and commented on in the financial press and easily available to firms looking for an investment bank. Focusing on the mergers and acquisitions (M&A) industry, in which league tables have been used since at least the 70s,

\* F.D. acknowledges financial support from the Investissements d'Avenir Labex (ANR-11-IDEX-0003/Labex Ecodec/ANR-11-LABX-0047). We greatly appreciate the comments of Pat Akey, Ted Azarmi, Eric De Bodt, Olivier De Jonghe, François Degeorge, Alex Edmans, Nuno Fernandes, Laurent Frésard, Philipp Geiler, Edith Ginglinger, David Goldreich, Denis Gromb, Ulrich Hege, Johan Hombert, Stacey Jacobsen, Ambrus Kecskés, Thierry Marie, Adrien Matray, Sébastien Michenaud, Stefan Rostek, David Schumacher, David Thesmar, Fangming Xu and seminar participants at the Cass Business School, HEC Lausanne, Universita Cattolica in Milan, the University of Mannheim, WHU Otto Beisheim School of Management, York University, Melbourne University, Monash University, Latrobe University, the University of Edinburgh, the Frankfurt School of Finance and Management, and the 2nd ECCCS workshop on governance and control in Nice.

this paper studies how league tables affect the demand of M&A clients and how they influence the behavior of banks.

Figure 1 is consistent with the anecdotal evidence, which suggests that bankers take league table rankings very seriously.<sup>1</sup> Using all the M&A transactions done in the USA between January 1999 and December 2010, it shows the weekly frequency of M&A advisory roles reported by banks to Thomson Financial, the main league table provider in the USA. The evidence in Figure 1 is visually striking: The number of advisory roles reported by banks almost doubles in the last weeks of each quarter, and decreases sharply in the following weeks. This suggests that banks monitor carefully the reporting of their transactions to Thomson Financial right before the publication of league tables at the end of each quarter. Figure 2, which reports the weekly frequency of deal announcements, shows no such clustering of announcement dates. This suggests that the pattern in Figure 1 does not merely reflect seasonality in M&A activity or in M&A announcements, but is driven by league table concerns.

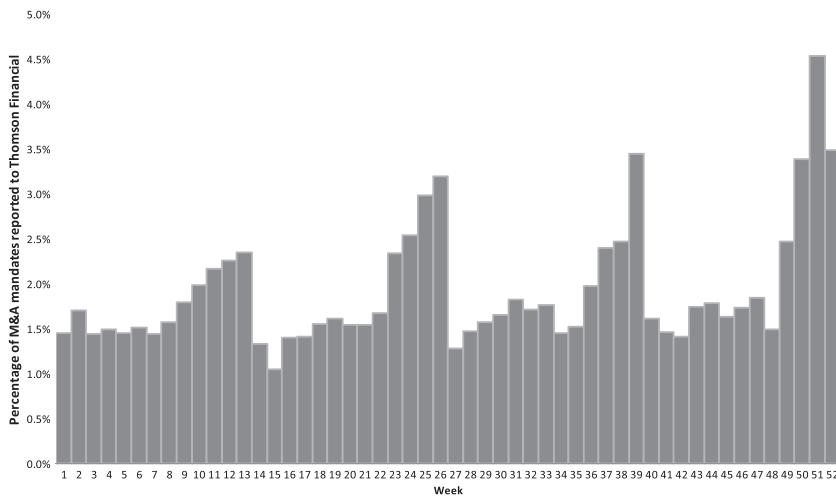
To understand why league tables matter for investment banks, we first ask whether current league table ranks affect future M&A activity. Our null hypothesis is that league tables, which contain public information on bank activity that is simply repackaged into a ranking, are just a sideshow. In this case, they may matter because they affect the self-image of bankers (Benabou and Tirole, 2003), their status (Besley and Ghatak, 2008), or their compensation. Alternatively, inexperienced managers, who are more likely to hire investment banks to assist them with their M&A transactions (Servaes and Zenner, 1996), may also rely more on league tables to choose these advisors because they believe that the rank of a bank in the league table, which reflects past demand from other clients, is a good measure of its expertise (e.g., Golubov, Petmezas, and Travlos, 2012). League table rankings could also affect clients' demand if hiring high-ranked banks signals the quality of the transaction to other stakeholders of the company (e.g., board members, shareholders, employees, customers, suppliers).

To explore the relation between league table ranks and future M&A activity, we use a series of empirical strategies. All the results suggest that a bank's rank in the league table affects its future M&A activity. In OLS regressions controlling for known determinants of market shares, recent changes in the league table rank of a bank predict future changes in its number of M&A mandates. League table rankings affect predominantly the demand of inexperienced M&A clients, consistent with the view that league tables are a useful source of information mostly for managers who are not familiar with the M&A market.

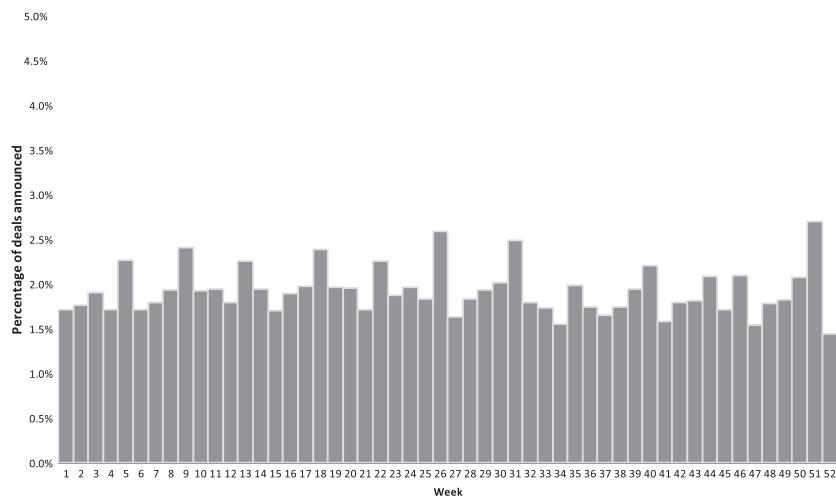
To establish causality between rankings and future deal flow unambiguously and ensure that this relationship is not driven by unobserved variables that affect both the rank of banks and their future M&A activity, we employ two additional specifications. First, we use the fact that league tables report only the top twenty-five banks in the ranking, even though banks right below rank 25 are very similar to banks right above that rank in terms of M&A market share. Consistent with the view that the visibility offered by the league table affects the future deal flow of a bank, we find that for banks that are close to rank 25, entering (exiting) the league table increases (decreases) the number of M&A transactions by about 20%.

Second, we try to identify exogenous changes to league table ranks, that is, rank changes that are not linked to changes in bank characteristics. To do so, we exploit the fact that

1 See for instance "It's time to stop league table obsessions," *Financial Times*, April 23, 2007.



**Figure 1.** Percentage of M&A advisory mandates reported to Thomson Financial per week. This figure presents the number of M&A mandates reported by banks to Thomson Financial each week as a percentage of the total number of mandates. The sample includes 55,760 deal–bank observations (mandates), corresponding to any M&A financial advisor involvement in the USA in Thomson SDC over the 1999–2010 period.



**Figure 2.** Percentage of M&A transactions announced per week. This figure presents the number of M&A transactions announced each week as a percentage of the total number of transactions. The sample includes 55,760 deal–bank observations (mandates), corresponding to any M&A financial advisor involvement in the USA in Thomson SDC over the 1999–2010 period.

when a bank is acquired, it disappears from the league table. Thus, banks ranked below the acquired bank in the league table mechanically gain ranks, while banks ranked above it are unaffected. Consistent with our previous results, we find that banks that benefit from such an exogenous gain of ranks increase their deal flow more than unaffected banks.

The impact of league tables in terms of future M&A activity creates incentives for banks to manage their positions in these rankings. We hypothesize that banks engage in such “league table management” if its costs in terms of current earnings, execution efforts, and reputation risk do not exceed its expected benefits. In testing this hypothesis, we face two empirical challenges. First, we need to identify ways for banks to manage their league table ranks. Second, if all banks constantly manage their rankings with the same intensity, then league table management should not affect rankings, and it might not even be observable to researchers, as the tournament literature shows (Lazear and Rosen, 1981; Green and Stokey, 1983; Nalebuff and Stiglitz, 1983). Thus, we also need to identify variations in the incentives of banks to manage their league table rankings.

We argue that banks can use at least two league table management tools. First, they can exploit the construction rules of league tables. These rules are such that, in most cases, all the banks that participate in a transaction obtain the same league table credit regardless of their role in the transaction. Thus, mandates associated with low effort (and low fees) but with full league table credit, like fairness opinions (FOs), are natural league table management tools. A FO is a third-party assessment of the fairness of the pricing of a proposed transaction.<sup>2</sup> FOs are financially unattractive because their fees are usually very low—in our sample, the median fee is 14 bp (about 500,000 dollars) for FOs versus 66 bp (about 2.75 million dollars) for regular advisory mandates. However, FOs are beneficial in terms of league table credit because FO providers obtain the same league table credit as regular advisors. Second, banks willing to improve their position in the league table can cut their fees. By doing so, they reduce their current earnings but they increase their chances of obtaining mandates, thereby increasing their expected league table rank and their future deal flow.<sup>3</sup>

We identify variations in the incentives to manage league table rankings as follows. First, the impact of a given transaction on a bank’s position in the ranking depends on the difference between the league table credits<sup>4</sup> accumulated by the bank and its competitors since the start of the period. If this difference is large, participating in the next transaction is unlikely to help the bank preserve or improve its rank in the league table. By contrast, if the bank is close to its competitors in terms of league table credits, it can gain ranks by increasing its activity marginally but it can also lose ranks if its competitors do the same. In this case, the bank has a lot to gain from participating in the next transaction. This variation in the relative league table impact of M&A transactions is our primary measure of a bank’s incentives to engage in league table management. Our second measure is recent performance in the league table, which may affect the costs and benefits of league table management. In particular, league table management is potentially less costly (in terms of foregone M&A fees and reputation cost) for banks that have lost ranks in recent league tables.

We find that banks are more likely to do FOs and to reduce their fees when their incentives to do so are greater. We control for clients’ demand by using deal-client-fixed effects.

2 For a complete description of M&A fairness opinions, see Davidoff (2006).

3 See “Morgan Stanley, Goldman said to swap fees for deal credit,” *Bloomberg News*, October 3, 2014.

4 The terms “league table credits” and “rank value” refer to the score credited to banks that participate in an M&A transaction. This score, which is closely related to the size of the transaction, is cumulated to rank banks in the league table, as we explain in Section 2.

Specifically, we show that when there are multiple advisors for the same deal and the same client (i.e., multiple banks facing the same demand), the bank that benefits the most from the deal in terms of ranking (because the deal leads to a larger reduction in the gap with its competitors in the league table) is more likely to do a FO and to charge lower fees, as is the bank with the poorer relative performance in recent league table rankings.

Next, we investigate the implications of this strategic response to league table rankings. We find that league table management affects the quality of services delivered by banks. In particular, FOs likely to be motivated by league table concerns are associated with lower valuation accuracy and higher uncertainty about the “fair” price of the transaction. Overall, the results suggest that league tables, because they affect banks’ future activity, also affect their behavior, with at least two effects for their clients: On the one hand, league tables exacerbate competition for mandates and can induce banks to cut fees, a positive outcome for M&A clients. On the other hand, league table management seems to have a negative impact on the quality of some services provided by banks.

To our knowledge, no existing paper studies league table rankings specifically. However, several studies analyze the performance of banks in M&As and how it explains future clients’ demand. Because league tables are designed to measure bank performance, our study is related to this literature, which reaches mixed conclusions. [Bowers and Miller \(1990\)](#) and [Allen, Shaked, and Lee \(1991\)](#) do not find any relation between the reputation of advisors and acquirers’ returns in M&A transactions. [Servaes and Zenner \(1996\)](#) find higher acquirers’ returns for “in-house” transactions than when the acquirer uses an external advisor. [Rau \(2000\)](#) finds a negative relation between the advisor’s market share and the acquirer’s wealth gain. [Bao and Edmans \(2011\)](#) identify a significant bank-fixed effect in acquirers’ returns. However, they find no relation between a bank’s quality, measured by its acquirers’ returns, and its future market share. In fact, the only variable that explains a bank’s future market share is its current market share. Other studies that use different quality measures or different M&A samples reach different conclusions. [Kale, Kini, and Ryan \(2003\)](#) find that the most reputable advisors are associated with larger wealth gains for their clients. [Golubov, Petmezas, and Travlos \(2012\)](#) find that, in public transactions, acquirers’ returns are higher when the reputation of the bank measured by its market share is better. Focusing on the bank–client relationship, [McConnell and Sibilkov \(2014\)](#) show that acquirers are more likely to retain their M&A advisors following higher wealth gains in their previous deals with these advisors. Our paper contributes to this literature by showing that league table rankings do affect clients’ demand, which in turn affects the behavior of banks.

This paper is also related to the literature on conflicts of interest in the investment banking industry. For example, [McLaughlin \(1992\)](#) reports that the compensation of M&A advisors depends mostly on deal completion rather than the quality of the transaction, and argues that this can create conflicts of interest for advisors. League tables also create a conflict of interest for banks: In order to maximize future income, banks have an incentive to manage their current league table ranking. This has two effects for their clients. One, the reduction in fees, is positive. The other one, the lower quality of some services provided by the bank, is negative.

The paper proceeds as follows. Section 2 describes the construction of league tables and presents the data. Section 3 explores the link between league table ranks and future deal flow. In Section 4, we ask whether banks manage their league table ranks. Section 5 concludes.

## 2. League Table Construction and Data

### 2.1 Construction of the League Table

The publication of M&A league tables started in the USA in the early 1970s and is now a standard practice using fixed and well-documented criteria. M&A league table providers include Thomson Financial, Bloomberg, Dealogic, and Mergermarket. We focus on M&A league tables provided by Thomson Financial because our data source for M&A transactions is Securities Data Company (SDC), also provided by Thomson Financial. M&A league tables by Thomson Financial are also more widely followed in the press than the rankings of other league table providers. In Factiva, over our sample period, about 3000 press articles include the terms “league table”, “M&A,” and the name of one of the four league table providers. Sixty-two percent of these press articles refer to Thomson Financial, 28% to Dealogic, 7% to Mergermarket, and 3% to Bloomberg.

Thomson Financial publishes M&A league tables, which report the top 25 banks in terms of M&A activity, at the end of each quarter. Appendix Figure AI presents one such league table (for the fourth quarter of 2006). The rules used to construct league tables are detailed in the official League Table Criteria document issued by Thomson. They can be summarized as follows:

- The ranking in a given quarter is based on the sum of “Rank Values” of transactions announced since the beginning of the calendar year. “Rank Value” is the value of the transaction (“Deal Value” item in SDC), plus the net debt of the target company if 100% of the economic interest of the target is acquired from an initial holding of less than 50%. “Rank Value” is set equal to zero whenever the value of the transaction is not disclosed.
- Eligible deals include all deals resulting in a change of economic ownership. Rumored and withdrawn deals at the time of the league table construction are not eligible.
- Eligible mandates include all mandates with any involvement in the deal, either as the advisor of the target company (sell-side mandate), as the advisor of the acquiring company (buy-side mandate), or as the advisor of the ultimate parent company on either side of the transaction.
- The definition of eligible advisory roles is relatively large and includes in particular the case in which the financial advisor only provides a FO.<sup>5</sup>
- Each financial advisor eligible for league table purposes receives almost systematically the full rank value of the deal.<sup>6</sup>

Participation in the league table is free. Thomson Financial automatically ranks any advisory role it is aware of provided that it obtains confirmation from an external source such as a press release announcing the transaction or an extract of the engagement letter. Since 2005, banks can challenge anonymously any role of any competing bank in any deal. The challenged bank has to provide documentation proving its involvement in the deal.

<sup>5</sup> “5.13: The following financial advisory roles are eligible for league table credit: initiation of the transaction, negotiations of terms and conditions, formal advice to board on fairness, public position on fairness, management of other advisors/process, coordination/review of due diligence, formal advice on the commercial merit of the transaction and valuation analysis”. (Source: M&A League Table Criteria Q3 2010, Thomson Reuters.)

<sup>6</sup> Exceptions to this rule include the case in which the financial advisor advises a minority shareholder of either the acquirer or the target.

The challenge process is possible because each bank can follow its position in the ranking (as well as that of other banks) in real time through league tables that are available on Thomson One Banker's website.

## 2.2 Data

We use Thomson Financial's SDC data for M&A announced between January 1999 and December 2010. Thomson provided league table rankings before 1999 but some important items, like the date at which the advisor obtains credit for a deal (Date Advisor Added) are often missing before 1999. We retain "any US involvement" deals eligible for league table purposes with at least one financial advisor reported by Thomson SDC. This yields an initial sample of 37,349 deals corresponding to 55,760 deal-bank observations or mandates. We follow [Bao and Edmans \(2011\)](#) and exclude banks with an average number of mandates per year smaller than two over our sample period. We also exclude banks that never appear in the league table in our sample period, that is, banks that are never in the top twenty-five banks using Thomson's criteria. This leads to a final sample of 26,466 deals, 39,690 deal-bank observations, and 80 unique banks. For each transaction, Thomson provides information on the number of financial advisors of the target and the acquiring firm, as well as their names, assignments, and fees.<sup>7</sup> In particular, Thomson reports whether the financial advisor provides advisory services, a FO, or both. To calculate cumulative abnormal returns around announcement dates, we use stock price data from Datastream because our sample includes cross-border transactions involving non-US targets or acquirers.

An important variable for our study is the rank of each bank in the league table. League table ranks are publicly available through two sources: Thomson's website and historical press releases issued by Thomson Financial. In our tests, we instead use league table ranks that we compute using the same criteria as Thomson Financial. A description of the procedure we use to estimate league table ranks appears in Appendix Table A1. We use these estimated ranks rather than those provided on Thomson Financial's website because Thomson Financial's ranks are based on the information currently available and not on the information available at the time of the publication of the league table.<sup>8</sup> We also use our estimated ranks rather than those that appear in Thomson's historical press releases because some of our tests require the use of weekly ranks, while historical league tables are published quarterly. Moreover, some tests require information on the ranks of banks outside the league table, that is, banks with ranks 26 and higher. These are not available in either past league tables currently available from Thomson's website or in historical press releases.

<sup>7</sup> This information is available for most transactions except for fees, which are observable for only 3,052 observations out of 39,690.

<sup>8</sup> Thomson Financial's website rewrites history using the most recent information available. This leads to substantial discrepancies compared with the historical league tables published in the press. For instance, some transactions that are now reported as withdrawn by Thomson SDC were pending at the time of the league table publication. Based on past information, these pending transactions were eligible for league table credit, but based on present information they are not. Moreover, several bank mergers occurred during our sample period. Based on past information, league table credits are attributed to each bank separately, but based on present information, all the league table credit is given to the surviving entity. For example, Lehman Brothers does not appear in the pre-2008 league tables produced today by Thomson's web interface. All the league table credits it obtained prior to 2008 are attributed to Nomura and Barclays.

To check the accuracy of our procedure, we compare our estimated rankings with those in Thomson's historical press releases published between December 2000 and December 2010. Appendix Table AII shows the level of matching between our estimated league tables and the published ones. On average, 76% of the ranks in our estimated rankings match exactly those in the published rankings. In the remaining 24% of cases, the difference between the estimated and the published rank is 1.32 on average. Overall, the average difference between estimated ranks and published ranks is  $-0.02$  ( $0.35$  when the difference is calculated in absolute value). It is not statistically different from zero, and it is not larger for banks at the bottom of the table.

Appendix Table AIII presents the variables used in the tests and Table I presents summary statistics of these variables. All the rank variables are multiplied by  $-1$ , so that a higher rank always indicates a better ranking, and continuous variables are winsorized at 1% in each tail.

### 3. League Table Ranking and Future Deal Flow

#### 3.1 OLS Regressions

First, we explore the relation between league table rankings and future deal flow. Our null hypothesis is that league tables do not affect future M&A activity. The alternative hypothesis is that they do because the ranking they provide affects clients' demand. To test this, we explore the link between current league table ranks and future M&A activity using panel regressions at the quarter-bank level. Because both the rank of the bank and its quarterly volume of mandates have a strong stationary component, we do not examine the effect of the bank's rank on its M&A activity in levels. Rather, we explore the effect of a change in the bank's rank on the change in its M&A activity in the following quarter. We use two measures of M&A activity. The first one is based on the number of mandates of the bank. The second uses the total value of these mandates. The second measure, which takes into account both the number of mandates and their size, may be a better measure of fee income from the bank's M&A activity. However, deal value is missing in about 30% of deals, which makes this variable very noisy. We eliminate FOs and consider only pure advisory mandates when we calculate a bank's activity because FOs typically generate limited fees. We take a long difference approach and focus on year-on-year rather than quarter-on-quarter variations in the number of mandates. The advantage of this long-difference approach is that it fits well the design of league tables, which are yearly cumulative rankings. This approach also neutralizes any within-year seasonality in M&A activity. We thus regress the growth in the number of mandates in a given quarter relative to the same quarter of the previous year on the change in ranks of the bank at the end of the previous quarter relative to the same quarter of the previous year. In this test, we focus on "published rankings," that is, ranks between 1 and 25, and we assign rank 26 to any bank that does not appear in the league table, but we obtain the same results when we ignore banks outside the league table instead.

Columns 1 and 4 of Table II present the first specification with year-quarter-fixed effects that capture changes in M&A activity over time. Controls include  $LT\_rank_{q-1}$ , the rank of the bank at the end of the previous quarter. We multiply this variable by  $-1$ , so that it is larger for better-ranked banks.  $LT\_rank_{q-1}$  is negatively related to growth in the bank's activity. This variable controls for the effect of size and its negative coefficient indicates decreasing return to scale: when a bank becomes larger, its number of deals grows less on

**Table I.** Summary statistics

This table presents summary statistics of our sample. The sample includes 39,690 deal–bank observations (mandates), corresponding to any M&A financial advisor involvement in the USA in Thomson SDC over the 1999–2010 period, for 80 banks that announce at least two deals per year on average and are ranked in the league table at least one time in the sample period. Panel A includes observations at the deal–bank level. Panel B includes quarterly observations at the bank level. All continuous variables are winsorized at the 1% level in each tail. All variables are defined in Appendix Table AIII.

Main employed variables	N	Mean	p25	Median	p75	Standard deviation		
						Overall	Between	Within
<b>Panel A. Mandate level observations</b>								
Client_buy_performance	39,690	0.64%	−0.24%	0.58%	1.38%	1.89%		
Client_sell_performance	39,690	17.34%	14.19%	16.69%	20.98%	7.18%		
Cross_border	39,690	30.57%	0	0	1	46.07%		
Deal_size	30,316	1,338	85	282	937	3,435		
Deal_value (Log)	30,316	5.65	4.44	5.64	6.84	1.81		
Deviation	35,469	−0.07	−2.00	0.00	1.00	5.07		
Fee	3,052	87.29	27.06	63.93	108.86	98.49		
Fo	39,690	12.38%	0	0	0	32.93%		
Fo_co	39,690	4.17%	0	0	0	19.99%		
Friendly	39,690	97.49%	1	1	1	15.64%		
LT_contribution	22,907	−4.46	−5.90	−4.62	−3.17	2.10		
LT_rank	39,690	−13.19	−26.00	−11.00	−4.00	9.56		
LY_mkt_share	35,469	14.14%	1.36%	10.98%	23.77%	13.92%		
Payment_mix_cash	39,690	38.80%	0	0	1	48.73%		
Payment_mix_other	39,690	4.48%	0	0	0	20.69%		
Payment_mix_stock	39,690	11.91%	0	0	0	32.39%		
Payment_mix_unknown	39,690	20.59%	0.00%	0.00%	0.00%	40.44%		
Prev_deals_acquiror	39,412	5.55	0.00	0.00	2.00	16.58		
Prev_deals_target	39,412	1.07	0.00	0.00	1.00	3.13		
Prev_M&A	39,690	33.02	0.00	2.00	9.00	146.71		
Same_industry	39,690	47.44%	0	0	1	49.94%		
Sell_side	39,690	60.50%	0	1	1	48.89%		
Tender	39,690	6.81%	0	0	0	25.18%		
Toehold	39,690	2.64%	0.00%	0.00%	0.00%	12.10%		
Valuation_accuracy	703	−0.28%	−0.38%	−0.20%	−0.08%	0.26%		
Valuation_range	1,248	40.41%	22.17%	32.66%	48.27%	29.09%		
<b>Panel B. Bank level quarterly observations</b>								
ΔClient_buy_performance <sub>q−1</sub>	2,702	−0.04%	−0.93%	0.00%	0.90%	3.23%	0.45%	3.20%
ΔClient_sell_performance <sub>q−1</sub>	2,702	0.68%	−3.07%	0.00%	4.18%	10.41%	3.06%	10.18%
ΔFull_rank <sub>q−1</sub>	2,702	3.93	−11.00	1.00	15.00	52.61	23.87	51.00
ΔLT_rank <sub>q−1</sub>	2,702	0.21	0.00	0.00	0.00	4.31	0.88	4.30
ΔMandates_number <sub>q</sub>	2,418	24.2%	−40.0%	0.0%	50.0%	117.3%	42.6%	113.4%
ΔMandates_value <sub>q</sub>	2,343	329%	−76%	−13%	170%	1,195%	306%	1,161%
ΔMkt share <sub>q</sub>	2,641	0.0%	−0.2%	0.0%	0.2%	1.7%	0.4%	1.7%
Client_buy_performance <sub>q</sub>	2,969	0.80%	−0.72%	0.33%	1.78%	4.11%	2.13%	3.51%
Client_sell_performance <sub>q</sub>	2,969	17.81%	11.38%	17.60%	23.61%	13.07%	7.12%	11.12%
Deviation <sub>q−1</sub>	2,060	0.12	0.00	0.00	0.00	4.00	1.33	3.90
Full_rank <sub>q</sub>	2,969	−56.66	−75.00	−36.00	−17.00	58.44	37.76	44.70
LT_rank <sub>q</sub>	2,969	−21.04	−26.00	−26.00	−17.00	7.78	6.91	3.40
Mandates_value <sub>q</sub>	2,969	14,796	160	1,230	9,575	33,372	25,095	21,169
Mandates_number <sub>q</sub>	2,969	12.83	2.00	6.00	16.00	16.45	15.29	6.70
Nb_fo_co <sub>q</sub>	2,969	0.53	0.00	0.00	1.00	1.14	0.73	0.80
Pct_fo_co <sub>q</sub>	2,969	3.94%	0.00%	0.00%	2.44%	11.47%	3.75%	10.90%

**Table II.** The effect of the league table rank on M&A mandates

This table presents panel regressions examining the effect of a change in rank in the league table on the growth of the number of mandates obtained by a bank (in Columns 1–3) and the total value of these mandates (in Columns 4–6). The analysis is at the quarter-bank level. In Columns 1–3, the dependent variable is  $\Delta\text{Mandates\_number}_q$ , the year-on-year growth of the number of M&A mandates observed for bank  $i$  at quarter  $q$  of year  $y$  ( $\text{Mandates\_number}_{i,q}/\text{Mandates\_number}_{i,q,y-1}$ ). In Columns 4–6, the dependent variable is  $\Delta\text{Mandates\_value}_q$ , the year-on-year growth of the total deal value observed for bank  $i$  at quarter  $q$  of year  $y$  ( $\text{Mandates\_value}_{i,q}/\text{Mandates\_value}_{i,q,y-1}$ ).  $\Delta\text{LT\_rank}_{q-1}$  is the number of ranks gained/lost inside the league table by bank  $i$  at the end of quarter  $q-1$  of year  $y$  on a year-on-year basis ( $\text{LT\_rank}_{i,q-1,y} - \text{LT\_rank}_{i,q-1,y-1}$ ).  $\text{LT\_Rank}_{q-1}$  is the rank of the bank in the league table at the end of quarter  $q-1$ , multiplied by  $-1$ .  $\Delta\text{Mkt share}_{q-1}$  is the year-on-year change in deal value market share for bank  $i$  at quarter  $q-1$  of year  $y$  [ $(\text{Mandates\_value}_{i,q-1}/\text{Total\_mandates\_value}_{q-1,y}) - (\text{Mandates\_value}_{i,q-1,y-1}/\text{Total\_mandate\_value}_{q-1,y-1})$ ].  $\Delta\text{Client\_buy\_performance}$  (respectively,  $\Delta\text{Client\_sell\_performance}$ ) is the change in 3-year average client CAR ( $-1, +1$ ) in buy-side mandates (respectively, in sell-side mandates) done by the bank relative to the same quarter of the previous year. Standard errors are clustered at the bank level.  $t$ -Statistics are in parentheses.

Dependent variable	$\Delta\text{Mandates\_number}_q$			$\Delta\text{Mandates\_value}_q$		
	(1)	(2)	(3)	(4)	(5)	(6)
$\Delta\text{LT\_rank}_{q-1}$	2.202*** (2.97)	1.761*** (2.65)	1.597* (1.83)	17.628*** (2.99)	17.672*** (2.84)	18.298** (2.37)
$\text{LT\_rank}_{q-1}$	-0.843*** (-3.63)	-0.744*** (-3.39)	-1.05 (-1.02)	-20.170*** (-6.29)	-20.186*** (-5.96)	-18.928* (-1.83)
$\Delta\text{Mkt share}_{q-1}$	0.096 (0.08)	-0.988 (-0.81)	-0.803 (-0.66)	-6.799 (-0.46)	-6.637 (-0.47)	2.286 (0.16)
$\Delta\text{Client\_buy\_performance}_{q-1}$	-0.921 (-0.70)	-0.838 (-0.72)	-0.102 (-0.09)	6.066 (0.47)	6.061 (0.47)	3.576 (0.28)
$\Delta\text{Client\_sell\_performance}_{q-1}$	0.335 (1.01)	0.297 (0.97)	0.32 (1.05)	2.493 (0.64)	2.495 (0.65)	1.61 (0.35)
$\Delta\text{Mandates\_number}_{q-1}$		0.107*** (2.94)	0.049 (1.55)			
$\Delta\text{Mandates\_value}_{q-1}$				-0.001 (-0.04)	-0.057** (-2.20)	
Year-quarter-fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Bank-fixed effects	No	No	Yes	No	No	Yes
Adjusted $R^2$	5.8%	6.8%	8.8%	3.5%	3.4%	5.4%
$N$	2,166	2,166	2,166	2,043	2,043	2,043

Note: \*Significant at 10%; \*\*Significant at 5%; \*\*\*Significant at 1%.

average. We also control for changes in the bank's market share in the last year because the literature (Rau, 2000; Bao and Edmans, 2011) finds that the main determinant of a bank's current market share is its past market share. Like Bao and Edmans (2011), we define deal value market share as the total value of the deals advised by the bank during a given period divided by the total value of M&A transactions during the same period. The coefficient on the change of market share is not statistically significant, which suggests that a recent increase in a bank's market share does not affect its future deal flow, unless it is associated

with an increase in the bank's league table rank. Finally, we control for possible changes in the quality of the bank, measured by the average performance of clients of the bank when their M&A transactions were announced, like in [McConnell and Sibilkov \(2014\)](#). Client performance is calculated separately for buy- and sell-side transactions of the bank. It is the average Cumulative Abnormal Return of clients in the three-day window around the announcement for all transactions done in the past 3 years. We do not add bank-fixed effects in this specification because our dependent variable is calculated as a difference, so any fixed effect related to the level of business volume is already differenced out.

In this specification, the main variable of interest,  $\Delta LT\_rank$ , is positively and significantly related to changes in deal flow. The coefficient of 2.2 in Column 1 means that a gain of one rank in the league table corresponds to a growth in the number of mandates of 2.2%, or that a one standard deviation increase of  $\Delta LT\_rank$  leads to an increase in  $\Delta Mandates\_number$  of about 9% on average, which represents about 8% of the standard deviation of this variable. In Column 4, in which M&A activity is calculated in total deal value, a change in rank in the league table leads to an average increase in M&A activity of 18%, a much larger effect than in Column 1. However, a one-standard deviation increase in  $\Delta LT\_rank$  leads to an increase in  $\Delta Mandates\_value$  of about 6% of the standard deviation of this variable ( $4.3 \times 17.628/1,195\%$ ). Thus, the effect is of comparable economic magnitude in the two columns. It only looks much larger in Column 4 because the change in M&A activity is much noisier when measured in total deal value. For this reason we prefer to measure M&A activity in number of deals, and we use this measure only in the next tables to save space, although the results are similar when M&A activity is measured in total deal value.<sup>9</sup>

One concern is the possibility that the dependent variable is serially correlated. A bank experiencing a significant increase in business volume in a given quarter could also have been experiencing a similar increase in the previous quarter. In this case, the growth in the volume of mandates would not come from a change in ranks, but from the fact that the business volume of the bank was already growing in the previous period. We try to alleviate this concern in Columns 2, 3, 5, and 6. In Columns 2 and 5, we add a lagged transformation of the left-hand side variable and estimate a dynamic panel regression to isolate the effect of past changes in the bank's deal flow on future changes of this variable. As in the previous columns, the coefficient on  $\Delta LT\_rank$  is positive and statistically significant. A possible concern with this specification is that the OLS estimation is biased if there is any time invariant component in the error term of the regression. If we suspect the presence of any bank-fixed effects in the change in (and not the level of) the M&A activity of the bank, then the explanatory variable  $\Delta Mandates_{q-1}$  is indeed positively correlated with the error term in period  $q$ . In this case, the coefficient on the lagged variable is biased upward (see [Bond, 2002](#)). We address this issue in Columns 3 and 6 of [Table II](#) by adding bank-fixed effects to remove any time invariant component related to the change in business volume. This within-transformation helps mitigate the OLS estimation problem if the time dimension of the panel is sufficiently large.<sup>10</sup> In this last specification, the coefficient on

9 Sample size is also reduced slightly with the measure in deal value because for banks that have done only deals with no reported value in a given quarter, we cannot measure growth in activity the following year.

10 Dynamic panel estimations using individual-fixed effects also create a bias, but its magnitude is inversely related to the panel length ( $T$ ) (See [Nickell, 1981](#)). Since we are using quarterly data, our

ALT\_rank is still positive and significant (at the 10% level in Column 3, at the 5% level in Column 6), and its magnitude is little affected by the inclusion of bank-fixed effects.

### 3.2 Ranking and Future Deal Flow around the Rank-25 Threshold

These results suggest that current league table rankings affect future M&A activity. However, changes in league table rankings could be correlated with omitted variables (e.g., changes in the M&A expertise of the bank) that affect future deal flow. To rule out this alternative explanation of our previous results and show unambiguously a causal league table effect, we use two alternative specifications.

First, we use the fact that only the top twenty-five banks appear in published league tables. If the effect we document in [Table II](#) above is linked to the visibility offered by the league table, entering or leaving the ranking should have a significant impact on a bank's future M&A activity. In [Table III](#), we test this in a Regression Discontinuity Design (RDD) setting. We consider the full ranking of banks and not only the top twenty-five banks that appear in the published league table. We divide banks into two groups according to the variable  $\text{Full\_rank}_{i,q-1}$ , equal to the rank of the bank in the full ranking at the end of the previous quarter. Banks are assigned to the treatment group when they are ranked between ranks 1 and 25, and therefore appear in the published league table. Banks below the rank-25 threshold are assigned to the control group. The dummy variable  $\text{Above25}_{i,q-1}$  is equal to one if the bank is in the treatment group at the end of the previous quarter, and 0 otherwise. Our goal is to estimate the effect of this variable on the future deal flow of the bank. Our methodology derives from [Roberts and Whited \(2012\)](#) who propose to estimate the following equation in the vicinity of rank 25:

$$\text{Mandates}_{i,q} = \alpha + \beta \text{Above25}_{i,q-1} + \gamma (\text{Full\_rank}_{i,q-1} + 25) + \delta \text{Above25}_{i,q-1} \times (\text{Full\_rank}_{i,q-1} + 25) + \epsilon_{i,q}. \quad (1)$$

To be consistent with the specification of [Table II](#), we use a differentiated version of this equation, which allows us to explore how moving in or out of the published league table in a given quarter affects the subsequent M&A deal flow of a bank:<sup>11</sup>

$$\Delta \text{Mandates}_{i,q} = \beta \Delta \text{Above25}_{i,q-1} + \gamma \Delta \text{Full\_rank}_{i,q-1} + \delta (\Delta \text{Above25} \times \text{Full\_rank})_{i,q-1} + \mu_{i,q}. \quad (2)$$

The left-hand side variable is  $\Delta \text{Mandates}_{i,q}$ , the growth in the quarterly number of mandates observed at the bank level, but our results are unchanged if we use the absolute change in the number of mandates instead. The main variable of interest is  $\Delta \text{Above25}_{i,q-1}$ .

panel spans forty-eight time periods, which should significantly reduce the bias. [Judson and Owen \(1999\)](#) find that the fixed effects model performs as well or better than any other dynamic panel estimation techniques starting from  $T = 30$ . [Flannery and Hankins \(2013\)](#) also find that the fixed effect estimator may perform as well and even better than alternative techniques in the presence of endogenous variables using a length of panel  $T = 12$ .

11 Differentiating  $\text{Above25}_{i,q-1}$  yields  $\Delta \text{Above25}_{i,q-1} = \text{Above25}_{i,q-1,y} - \text{Above25}_{i,q-1,y-1}$ , a variable equal to 1 if the rank of the bank increased above the threshold, -1 if it decreased below the threshold, and 0 otherwise. Similarly, differentiating the other two variables yields  $\Delta \text{Full\_rank}_{i,q-1} = (\text{Full\_rank}_{i,q-1,y} + 25) - (\text{Full\_rank}_{i,q-1,y-1} + 25)$ , a variable equal to the overall variation of the rank, and  $\Delta (\text{Full\_rank} \times \text{Above25})_{i,q-1} = ((\text{Full\_rank}_{i,q-1,y} + 25) \times \text{Above25}_{i,q-1,y}) - ((\text{Full\_rank}_{i,q-1,y-1} + 25) \times \text{Above25}_{i,q-1,y-1})$ , a variable equal to the number of ranks gained/lost inside the published league table.

**Table III.** The effect of rank 25 on the number of M&A mandates

This table presents local linear regressions examining the effects of rank variations around rank 25 on the number of mandates. The analysis is at the quarter-bank level. The sample is restricted to banks with a rank between 21 and 30 at the end of the previous quarter in the full ranking of M&A advisors (Full\_rank<sub>q-1</sub> variable). The dependent variable is  $\Delta\text{Mandates\_number}_q$ , the year-on-year growth of the number of M&A mandates observed for bank  $i$  at quarter  $q$  of year  $y$  ( $\text{Mandates\_number}_{i,q,y}/\text{Mandates\_number}_{i,q,y-1}-1$ ).  $\Delta\text{Above25}_{q-1}$  is a variable equal to 1 if the bank entered the league table, -1 if it exited the league table, and 0 if it remained either inside or outside the league table in the year ending at the end of the previous quarter.  $\Delta\text{Full\_rank}_{q-1}$  is the annual number of ranks gained/lost in the full ranking of M&A advisors at the end of the previous quarter (Full\_Rank<sub>q-1,y</sub> Full\_Rank<sub>q-1,y-1</sub>).  $\Delta(\text{Full\_rank} \times \text{Above25})_{q-1}$  is the number of ranks gained/lost by the bank *inside* the league table at the end of the previous quarter on a year-on-year basis. In panel A, we present the results of our baseline estimation. In panel B, we present the results of falsification tests that replicate the baseline analysis using different ranking thresholds  $d$  (from 21 to 29) and different restrictions (from 3 to 6 ranks) around the threshold  $d$ . We report the regression coefficient estimated on the main variable of interest  $\Delta\text{Above25}_{q-1}$  only.  $t$ -statistics are in parentheses. Standard errors are clustered at the bank level.

Panel A: Baseline estimation

Dependent variable	$\Delta\text{Mandates\_number}_q$	$\Delta\text{Mandates\_number}_{q-2}$
$\Delta\text{Above25}_{q-1}$	18.336** (2.07)	4.13 (0.28)
$\Delta\text{Full\_rank}_{q-1}$	0.153 (1.25)	0.579* (1.84)
$\Delta(\text{Full\_rank} \times \text{Above25})_{q-1}$	-2.825 (-1.65)	0.24 (0.12)
Year-quarter-fixed effects	Yes	Yes
Observation restrictions	$20 < \text{Full\_rank}_{q-1} \leq 30$	$20 < \text{Full\_rank}_{q-1} \leq 30$
Adjusted $R^2$	12.5%	9.8%
N	343	322

Panel B: Falsification tests

Observation restrictions	(1) $d-6 < \text{Full\_rank}_{q-1} \leq d+6$	(2) $d-5 < \text{Full\_rank}_{q-1} \leq d+5$	(3) $d-4 < \text{Full\_rank}_{q-1} \leq d+4$	(4) $d-3 < \text{Full\_rank}_{q-1} \leq d+3$
Discontinuity test at $\text{Full\_rank}_{q-1} =$				
21	11.7 (0.81)	1.1 (0.08)	2.4 (0.17)	6.7 (0.45)
22	-1.6 (-0.1)	-1.1 (-0.06)	-2.5 (-0.14)	-16.3 (-0.83)
23	13.6* (1.75)	11 (1.1)	0.7 (0.06)	-10.8 (-0.84)
24	8.8 (1.04)	4.5 (0.48)	7.8 (0.66)	-9.4 (-0.55)
25	21.7** (2.53)	18.3** (2.07)	18.1* (1.85)	28** (2.39)
26	20.6* (1.92)	18.7* (1.67)	12.3 (1.04)	10.4 (0.74)
27	7.4 (0.72)	13.5 (1.28)	10.7 (0.94)	0.2 (0.02)
28	-8.8 (-0.7)	-13.7 (-1.16)	-10.4 (-0.89)	-19* (-1.96)
29	4.6 (0.37)	1.6 (0.11)	-4.8 (-0.38)	10.7 (0.76)

Note: \*Significant at 10%; \*\*Significant at 5%; \*\*\*Significant at 1%.

It is equal to  $-1$  if the bank left the league table during the previous year (i.e., between the ranking published 1 year ago and the ranking published at the end of the previous quarter),  $+1$  if the bank entered the league table, and  $0$  otherwise. The additional control variables in our specification ensure that  $\Delta\text{Above25}_{q-1}$  only captures the effect of a switch into or out of the published league table.  $\Delta\text{Full\_rank}_{q-1}$  controls for the effect of the change in ranks that occurs simultaneously, and  $\Delta(\text{Full\_rank} \times \text{Above25})_{q-1}$  controls for the number of ranks gained or lost specifically inside the published league table as the effect of a rank variation may be different on the two sides of the threshold.

In the regression of [Table III](#), Panel A, we restrict our sample to banks that are ranked between 21 and 30 at the beginning of the quarter. The assumption we are making in this test is that banks in the vicinity of rank 25 are very similar, except that some appear in the league table whereas others do not. If this assumption is correct, and if the relation between the league table rank of a bank and its future deal flow is causal, then the variable that captures movements of banks in and out of the league table should significantly explain their changes in M&A activity. The test indicates that entering (leaving) the league table results in an increase (decrease) in the growth of the number of mandates of about 18% the next quarter. This is about ten times as large as the effect documented in [Table II](#): Appearing in the league table affects future deal flow much more than gaining a rank for a bank that was already in the ranking.<sup>12</sup>

The second column of the table presents a placebo test. To ensure that our previous result is not capturing a pre-existing trend, we lag the dependent variable by two quarters.<sup>13</sup> When we do so, the coefficient on  $\Delta\text{Above25}_{q-1}$  is close to zero and statistically insignificant.

Next, we run falsification tests to ensure that the effect found in the first column of Panel A is driven by the league table. If this is the case, moving from below to above rank 25 should matter significantly more than moving, say, from below to above rank 27. To test this, we repeat the same regression as in Panel A, replacing  $\Delta\text{Above25}$  by  $\Delta\text{Above } d$ , where  $d$  takes values between 21 and 29, that is, measuring the effects of being ranked above versus below ranks other than rank 25. We also vary the number of ranks around the threshold  $d$  for which we include banks in the test. The results, in Panel B of [Table III](#), present the coefficient on the main variable  $\Delta\text{Above } d$ . Both the magnitude and the significance of these coefficients confirm that the only relevant threshold is rank 25. The coefficient of interest is always statistically significant at conventional levels, irrespective of the number of ranks considered around the rank-25 cutoff. Moreover, the size of the coefficient and its statistical significance tend to decrease when  $d$  moves away from the actual cutoff. This tendency is easily explained by the fact that banks are less likely to enter or exit the league table when  $d$  is no longer in the vicinity of rank 25. For  $d = 26$ , the placebo test still captures part of the effect of entering the league table because banks that cross rank 26 may

12 Banks in the vicinity of rank 25 are also generally less established than banks at the top of the table. On average, they have greater changes in market shares from 1 year to the next, as can be seen in [Table II](#).

13 We lag the dependent variable by two quarters instead of one to avoid any overlap with the independent variables, which are themselves lagged by one-quarter. When we use  $\Delta\text{Mandates}_{q-3}$  as the dependent variable, the coefficient on  $\Delta\text{Above25}_{q-1}$  remains insignificant.

also cross rank 25. This simultaneity problem disappears for  $d = 29$  because banks moving around the 29 rank threshold are less likely to enter or exit the league table.<sup>14</sup>

An important assumption of our RDD test is that banks that just pass the threshold to be included in the ranking are comparable to banks that just fail to pass the threshold. This may not be the case if the forcing variable (in our case, the rank of the bank) can be manipulated. Our claim that banks manage their league table ranks might contradict this assumption. However, RDD is still valid in the presence of manipulation of the forcing variable as long as there remains uncertainty regarding the outcome of the manipulation (Lee, 2008). In our setting, banks can manage their rank. In fact, we show that they do in the following sections. However, unlike in situations in which the threshold to reach to be in the treatment group is publicly observable, in the case of league tables, the threshold (rank 25) is a moving target that depends on actions of the bank's competitors, some of which are not observable in real time. Competitors can also take actions to manage their own ranks, and they can be working on transactions that have not yet been announced and that will affect their league table credits. This makes manipulation to attain rank 25 very uncertain.

Moreover, the design of the test also mitigates this concern that unobserved heterogeneity between banks introduces a bias in the estimation. Indeed, the test is identified on banks that, in consecutive periods, are alternatively successful and unsuccessful at manipulating their way into the league table. Therefore, should (unobserved) heterogeneity between banks introduce a bias in one direction in a particular quarter, this bias would play in the opposite direction the following quarter. The only possible alternative interpretation of the results is that time-varying unobservable variables associated with a move above or below rank 25 in a given quarter explain a change in M&A activity the next quarter. However, the very large magnitude of the effect we document and the fact that it is present only at the actual league table threshold (rank 25) suggest that our interpretation that entering or leaving the league table affects future M&A activity is the most plausible explanation of the results.

### 3.3 The Effect of Bank Mergers

The test of the previous section provides evidence that entering the league table causes higher deal flow for banks. However, this test focuses on banks ranked in the vicinity of rank 25. To further establish a causal link between a bank's rank in the league table and its future deal flow, we would like to extend this result to banks that gain ranks within the league table. To do so, we use a second method: we exploit bank mergers, which affect rankings within the league table but are unrelated to bank characteristics. When two banks merge, one of them disappears from the league table. Banks ranked below the lower-ranked of the two banks that merge lose a competitor in the ranking and, all else equal, they gain a rank in the next league table. We identify eleven bank mergers with such an effect on league table rankings between 1999 and 2010. The list of these mergers appears in Appendix Table AIV. We run a difference-in-differences test to estimate how future M&A activity changes when the rank of a given bank is affected by this type of event. In this test, a shock

<sup>14</sup> To fully eliminate this confounding effect, we also repeat these falsification tests further away from rank 25 (between ranks 10–20 and 30–40, to be precise). When we do so, coefficients on  $\Delta$ Above  $d$  are typically small and they are almost never statistically significant. This confirms that no other rank inside or outside the league table has an impact on deal flow comparable to rank 25.

(or “treatment”) is received whenever a bank mechanically gains a rank relative to the same quarter of the previous year because of a bank merger. Over our sample period, forty-six banks out of eighty are affected at least once by this type of event. Appendix Table AV provides an example of such a shock and how it affects the rank of banks in the league table. We estimate the effects of these shocks on future deal flow using the following specification:

$$\text{Mandates}_{i,q} = \beta \text{ Exit}_{i,q} + \alpha_i + \alpha_q + \epsilon_{i,q}. \quad (3)$$

This specification derives from Bertrand and Mullainathan (2003) and handles situations with multiple treatment groups and multiple shocks over time. The dependent variable is the number of mandates of bank  $i$  during quarter  $q$ . The main variable of interest is the variable Exit, which is equal to one after the bank receives a shock to its league table rank. Unlike standard diff-in-diff studies in which a treatment is received only once, a bank here can be affected by multiple shocks. To capture the effects of multiple shocks, we increment the variable Exit by one whenever a new merger affects the rank of the bank. Fixed effects are used to control for differences across banks. We use bank-quarter fixed effects (i.e., four quarter-fixed effects for every bank) to also control for seasonality within the year. Time (year-quarter)-fixed effects control for differences between time periods, such as aggregate shocks and common trends. Finally, acquiring banks are excluded from the analysis when they do their acquisition and in later periods to neutralize the growth in activity of these banks driven by the acquisition. Our estimate of the effect of a change in rank due to bank mergers,  $\beta$ , measures the number of mandates gained after a shock by those banks whose rank is positively and mechanically affected by a bank merger relative to a control group of unaffected banks.

Table IV presents the results. The coefficient on the Exit variable is significantly positive in Column 1 of the table. On average, following a bank merger, banks that benefit from an artificial gain in ranks increase their number of mandates by two relative to banks that do not benefit from such a gain in ranks. This number implies that a gain of one rank leads to a 7% increase in the number of mandates,<sup>15</sup> an effect about three times as large as in Table II. In Column 2, we further explore the dynamics of this effect over time. To do so, we split the Exit variable into four variables that isolate the effect of the shock to ranks over four specific time periods around the shock.  $\text{Exit}^{-1}$  is equal to 1 if a shock will occur in 1 year.  $\text{Exit}^0$  is equal to 1 if a shock occurs this year (i.e., in the year ending at the end of quarter  $q-1$ ).  $\text{Exit}^{+1}$  is equal to 1 if a shock occurred 1 year ago.  $\text{Exit}^{++}$  captures the effect of shocks that occurred 2 years ago or more. Like the variable we used in the previous specification, this variable is incremented by one any time a new shock affects the rank of the bank. Thus,  $\text{Exit}^{++}$  is an index variable equal to the number of shocks that occurred 2 years ago or more. Consistent with a causal effect of a bank’s change in league table ranks on its future deal flow, no effect is found before the shock (the coefficient on  $\text{Exit}^{-1}$  is not statistically significant). In fact, the effect starts right after the bank merger. The number of mandates of treated banks increases by about 2.5 right after the shock and the following year. In the long run, the benefit of the mechanical gain of ranks due to bank mergers is still statistically significant at the 10% level, albeit slightly smaller economically.

15 Treated banks in the test gain on average 1.4 ranks (see Column 3) and advise 20 deals by quarter in the pre-treatment period.  $2.084/(20 \times 1.4) = 7.44\%$ .

**Table IV.** The effect of exogenous rank changes on the number of M&A mandates

This table presents a difference-in-differences analysis examining the effects of the exit of a competitor from the league table following a bank merger on the number of M&A mandates. The analysis is at the quarter-bank level. The sample excludes banks ranked outside the league table. In Column 1, the dependent variable is  $Mandates\_number_q$ , the total number of M&A mandates of the bank during quarter  $q$ . The only explanatory variable is an index variable  $Exit$ , which is equal to the number of times the bank gained a rank after competitors exited the league table due to bank mergers, as at the end of quarter  $q-1$ . In Column 2, we split the  $Exit$  variable into four sub-periods.  $Exit^{-1}$  is equal to 1 if mergers between banks will result in a gain of rank in 1 year.  $Exit^0$  is equal to 1 if mergers between banks result in a gain of rank in the year ending at the end of quarter  $q-1$ .  $Exit^{+1}$  is equal to 1 if mergers between banks resulted in a gain of rank 1 year ago.  $Exit^{++}$  is the number of league table shocks due to bank mergers that resulted in gains of ranks 2 years ago or more. In Column 3, the dependent variable is  $Rank_q$ , the rank of the bank in the league table at the end of quarter  $q$ . Standard errors are clustered at the bank level.  $t$ -Statistics are in parentheses.

Dependent variable	(1)	(2)	(3)
	$Mandates\_number_q$	$Mandates\_number_q$	$Rank_q$
Exit	2.084*** (3.03)		1.369*** (4.00)
$Exit^{-1}$		0.421 (0.46)	
$Exit^0$		2.568*** (3.00)	
$Exit^{+1}$		2.460*** (2.66)	
$Exit^{++}$		1.512* (1.84)	
Year-quarter-fixed effects	Yes	Yes	Yes
Bank-quarter-fixed effects	Yes	Yes	Yes
Adjusted $R^2$	84.0%	84.1%	73.2%
N	970	970	970

Note: \*Significant at 10%; \*\*Significant at 5%; \*\*\*Significant at 1%.

One concern with the results in Columns 1 and 2 is that they may be driven by business reallocation after the merger. Although acquiring banks are removed from the analysis in order to neutralize this effect, it is still possible that part of the M&A business done by target banks is captured by other banks that are not directly involved in the merger. For instance, ex-employees of the target bank may decide to leave the new entity and to join other banks, which may benefit from their skills and business relationships. If such effects affect treated and control banks equally, they should not affect our diff-in-diff estimation. However, if such employee transfers and business reallocation benefit predominantly low-ranked banks, which are more likely to be treated, then our estimation might be biased upward.

To examine whether this is the case, we run our diff-in-diff test using the rank of the bank as a dependent variable (Column 3). We do so because the effect of a shock on the rank of a treated bank is two-fold. First, its rank increases mechanically because a higher-

ranked bank disappears. This first effect can be observed directly (see the example in Appendix Table AV). In our sample, treated banks mechanically gain on average 1.3 ranks after a shock. The average mechanical gain in ranks is larger than one because more than one bank merger can occur at the same time. Second, treated banks can benefit more than control banks from reallocation effects, which also enhances their ranking position. If this second effect is significant, our diff-in-diff estimation of the overall effect of the shock on the rank of the bank should be higher than 1.3. The test of Column 3 indicates that the combination of the two effects (mechanical increase + possible reallocation effects) leads to an average gain of 1.4 ranks, which is very similar to the average mechanical gain of 1.3 ranks documented above. While we cannot completely rule out the possibility that some reallocation occurs and that it benefits more treated banks than control banks, this result suggests that this phenomenon is limited in its magnitude and cannot be the main explanation for our finding.

### 3.4 The Effect of Client Experience

Overall, these results show that the rank of a bank in the league table influences its future deal flow. This could be because M&A league tables, which are one of the only independent public measures of bank performance, affect the visibility of banks with potential clients, and in turn affects clients' demand for their services. If this is the case, inexperienced clients, whose knowledge of the M&A market is more limited, should rely more on league tables to choose their M&A advisors. We test this hypothesis in [Table V](#).

This table explores the effect of a bank's league table rank on its probability of being hired by M&A clients. We interact the rank variable with other deal-level variables that are known to influence this probability, in particular the experience of M&A clients. We can then examine when the rank of the bank in the league table matters the most to obtain mandates. We use mandate-level OLS regressions with bank and deal-client-fixed effects. There are two mandates per transaction (the buy- and the sell-side) and we assume that all banks active at the time of the deal are competing for each mandate. For the bank(s) selected on either side of each deal, the dependent variable, *Win*, is equal to 1. The use of deal-clients-fixed effects (one dummy variable for each M&A mandate) is central in this specification because it allows us to control for all observed and unobserved characteristics of the deal and the client that may affect the choice of the investment bank. Time-fixed effects are naturally absent from this specification because the time of the deal does not vary within deal-client and is absorbed by the deal-client-fixed effects. We measure the client's experience with two variables. *Prev\_M&A* is the number of M&A transactions of the client in the past 5 years. It measures the overall M&A experience of the client. The second variable, *Prev\_deals*, is equal to the number of transactions done by the same client and in which the bank was involved in the past 5 years. It measures the intensity of the relationship between the client and the bank.

In line with previous results, the regression reported in Column 1 of [Table V](#) shows that the probability of obtaining a mandate increases with the rank of the bank, controlling for the past market share of the bank. The economic magnitude of this effect is consistent with our finding in [Table II](#). The regression coefficient indicates that a gain of one rank increases the probability of winning the mandate by 2.27% relative to the unconditional probability of 1.72% ( $0.0391/1.72\% = 2.27\%$ ). Past relationships between the client and the bank also matter. Participation of the bank in one additional deal done by the client in the past 5 years

**Table V.** Rank, client experience, and new mandate origination likelihood

This table presents OLS regressions examining the effects of the rank of a bank on its probability of obtaining an M&A advisory mandate. The analysis is at the deal-client (mandate) level. The dependent variable is *win*, an indicator variable equal to 1 if the bank obtains the mandate, and 0 otherwise. *LT\_rank* is the rank of the bank at the end of the previous year, multiplied by -1. *LY\_mkt\_share* is the market share of the bank in the previous year based on deal value. *Prev\_deals* is the number of deals of the same client advised by the bank in the past 5 years. *Prev\_M&A* is the number of M&A deals done by the client in the past 5 years. This variable is constant within deal and is absorbed by the deal-client-fixed effects. *Client\_buy\_performance* (respectively, *Client\_sell\_performance*) is the average CAR(-1, +1) of clients of the bank in buy-side (respectively, sell-side) mandates in the last 3 years. Standard errors are clustered at the bank level. *t*-Statistics are in parentheses. All coefficients are multiplied by 100 to improve readability.

	(1)	(2)	(3)
Dependent variable	Win	Win	Win
<i>LT_rank</i>	0.0391** (2.42)	0.0609*** (3.62)	0.0496*** (3.14)
<i>LT_rank</i> × <i>Prev_deals</i>		-0.1096*** (-7.42)	-0.0582*** (-3.07)
<i>LT_rank</i> × <i>Prev_M&amp;A</i>		-0.0026*** (-3.16)	-0.0014** (-2.26)
<i>Prev_deals</i>	1.5877*** (5.88)	1.1387*** (4.03)	3.4088*** (7.86)
<i>Prev_deals</i> × <i>Prev_M&amp;A</i>			-0.0218*** (-9.37)
<i>LY_mkt_share</i>	2.9745* (1.86)	3.8180** (2.23)	3.0288* (1.89)
<i>LY_mkt_share</i> × <i>Prev_deals</i>			0.7937 (0.93)
<i>LY_mkt_share</i> × <i>Prev_M&amp;A</i>			-0.0485 (-0.49)
<i>Client_buy_performance</i>	0.0049 (0.36)	0.0049 (0.38)	0.0062 (0.46)
<i>Client_buy_performance</i> × <i>Prev_deals</i>			-0.1036 (-1.60)
<i>Client_buy_performance</i> × <i>Prev_M&amp;A</i>			0.00040 (1.12)
<i>Client_sell_performance</i>	0.0044** (2.17)	0.0044** (2.16)	0.0055** (2.56)
<i>Client_sell_performance</i> × <i>Prev_deals</i>			0.0113 (0.92)
<i>Client_sell_performance</i> × <i>Prev_M&amp;A</i>			-0.0002** (-2.22)
Bank-fixed effects	Yes	Yes	Yes
Deal-client-fixed effects	Yes	Yes	Yes
Adjusted <i>R</i> <sup>2</sup>	3.0%	3.5%	4.7%
<i>N</i>	1,083,848	1,083,848	1,083,848

*Note:* \*Significant at 10%; \*\*Significant at 5%; \*\*\*Significant at 1%.

increases the probability for the bank to participate in the client's next transaction by almost two percentage points.

In Column 2, we test the hypothesis that the link between a bank's league table rank and its probability of being hired by a client decreases with the M&A experience of the client. We predict that the league table rank of the bank should matter less for the client's decision when the client knows the M&A market better (i.e., if *Prev\_M&A* is larger), or when the client knows the bank better (i.e., if *Prev\_deals* is larger). The main variables of interest in this regression are therefore the interaction variables  $LT\_rank \times Prev\_M\&A$  and  $LT\_rank \times Prev\_deals$ .<sup>16</sup> In Column 3, we also interact the two experience variables with past market share of the bank and past performance of the bank's clients, to ensure that our results are driven by the rank of the bank, and not by its past market share or quality. The regressions in Columns 2 and 3 of Table V are in line with the hypothesis: The interaction variables  $LT\_rank \times Prev\_M\&A$  and  $LT\_rank \times Prev\_deals$  have negative and significant coefficients. In other words, the bank's rank is less likely to influence decisions of clients with more experience of the M&A market or stronger relationships with the bank. In terms of economic magnitude of these effects, the coefficients on  $LT\_rank$  (0.0496),  $LT\_rank \times Prev\_deals$  (-0.0582), and  $LT\_rank \times Prev\_M\&A$  (-0.0014) in Column 3 imply that it takes a client slightly less than one deal with the same bank (0.0496/0.0582) or 35 deals in the past 5 years in total (0.0496/0.0014) to eliminate entirely the effect of the league table rank on the decision to hire a bank.

These results confirm that the impact of league table rankings on the future deal flow of banks is stronger for deals done by inexperienced clients. This is in line with our conjecture that clients rely more on M&A league tables to choose their advisors when they are less familiar with the M&A market.

## 4. Do Banks Manage Their League Table Ranks?

### 4.1 Measures of League Table Management Incentives

Given the relation between the position of a bank in the league table and its future M&A activity, banks have an incentive to gain ranks to increase their future M&A deal flow and fees. In this section, we test this league table management hypothesis.

We use two variables to measure the incentives of banks to manage their league table rank. Our primary measure aims at capturing the effect of a given transaction on the league table position of the bank. This effect should be assessed considering both the absolute impact of the deal in terms of league table credit (i.e., the size of the deal), and its relative impact, which also depends on the credit the bank needs to gain ranks or to avoid losing ranks. Deal  $d$  has a strong impact on bank  $i$ 's ranking relative to bank  $j$  if the credit associated with participation in the deal ( $rank\_value_d$ ) is large relative to the difference between the league table credits accumulated by banks  $i$  and  $j$  since the beginning of the year ( $LT\_credit_i$  and  $LT\_credit_j$ ), that is, if  $\log\left(\frac{rank\_value_d}{|LT\_credit_i - LT\_credit_j|}\right)$  is large.<sup>17</sup> The larger this ratio, the more beneficial the deal is for bank  $i$  in terms of closing (or enlarging) the gap with its competitor  $j$ . To the extent that each bank is competing with all other banks in the table, we average this ratio across all competitors. Thus,  $LT\_contribution$ , which measures

16 *Prev\_M&A* does not appear in the regression because it is absorbed by deal-client-fixed effects.

17 We obtain the same results without the log transformation of the ratio.

the average impact of deal  $d$  on the gap between bank  $i$  and its competitors in terms of league table credit, is defined as follows:

$$\text{LT\_contribution}_{i,d} = \frac{1}{24} \times \sum_{\substack{j=1 \\ j \neq i}}^{25} \log \left( \frac{\text{rank\_value}_d}{|\text{LT\_credit}_i - \text{LT\_credit}_j|} \right).$$

Banks are probably not competing with all other banks in the league table. However, the number of competitors of a bank varies across banks and over time. At the beginning of the year, when banks have not started accumulating league table credit, most banks are potential competitors. As time goes by, a bank's direct competitors are better identified. Finally, the design of LT\_contribution ensures that a competitor far from bank  $i$  in terms of accumulated credit affects the variable very little.<sup>18</sup> Under the league table management hypothesis, the incentives for a bank to manage its league table rank are larger when LT\_contribution is larger. To be meaningful, this measure requires that most banks already accumulated league table credits, which is not the case at the beginning of the year. In our subsequent tests, we exclude M&A transactions announced in January whenever we use the LT\_contribution variable.

To complement our primary measure LT\_contribution, we use a second variable as a proxy of a bank's incentives to manage its league table rank. Incentives to do league table management may be higher for banks that lost ranks recently and lower for banks that just gained ranks for three reasons. First, if banks cannot fully adjust their capacity in real time to respond to shifts in demand caused by recent rank changes, the opportunity cost of league table management is lower for a bank that just lost ranks and has excess capacity than for a bank that just gained ranks and is facing increased demand. Second, league tables are measures of the performance of banks and their employees that are publicly available. As such they are likely to affect the reputation of investment bankers outside the bank and the value of their outside options in terms of future compensation and career opportunities. Therefore, incentives to manage league tables are higher when those outside options matter more, that is, when the probability of downsizing is high. Since the probability of downsizing is higher after a poor performance in the ranking, so are the incentives to do league table management. Third, league table management may be costly in terms of reputation when it is detected, and is more likely to be detected when it is repeated. Because banks that gained ranks recently are on average more likely to have managed their rank, the risk of detection for them will be higher if they choose to do it again.

The deviation variable measures the recent performance of the bank in the ranking. It is equal to the difference between a bank's rank at the end of the previous calendar year and the most recent rank (calculated at end of the previous quarter in bank-quarter level tests, at the end of the previous week in deal-level tests). According to the league table management hypothesis, the incentives to manage their rank in the league table increase for banks that lost ranks in recent league tables and decrease for banks that gained ranks recently. Thus, league table management should decrease as deviation increases.

## 4.2 Fairness Opinions

We start the analysis of league table management by focusing on the first way for banks to gain ranks at relatively low costs: providing FOs, which involve limited effort but generate

<sup>18</sup> Results are similar if we consider only the five closest competitors of the bank instead of the twenty-four banks in the league table.

the same league table credits as regular advisory roles. We hypothesize that banks are more likely to do FOs in transactions that have a big impact on their ranks and when they lost ranks in recent league tables. This hypothesis requires that banks have some control over their FO activity, that is, that they can “offer” FOs to M&A clients, which have incentives to accept them. This assumption that FOs can be at least partially supply-driven seems reasonable given their low price and the importance of underwriting relationships for firms (Chitru, May, and Megginson, 2012).

When testing the hypothesis that banks do more FOs when their league table management incentives are higher, we face several identification concerns. A first concern is the possibility that banks with strong incentives to manage their league table ranks participate in transactions that are more likely to include FOs. For example, if banks that lost ranks in recent league tables want to regain their lost ranks or face lower demand, they might be willing or forced to participate in deals with higher execution complexity, higher litigation risk for the managers, or lower probability of success. All these unobserved deal characteristics may also be associated with a higher probability of observing a FO. To address this issue, we use an identification strategy similar to that of Khwaja and Mian (2008): we focus on deals with multiple banks for the same client and use deal-client-fixed effects (i.e., one dummy variable for every mandate). This approach allows us to compare banks exposed to the same deal-client conditions and which obtain the same league table credit, but differ in their incentives to manage their league table positions. We can then estimate how these incentives affect the probability to be the bank that does a FO among all the banks that work for the same client in the same transaction. To the extent this within deal-client comparison fully absorbs all deal- and client-specific variables affecting the demand for FOs, the estimated difference in the probability to do a FO can be plausibly attributed to differences in the incentives of banks to manage their rank in the league table.

Another identification concern is that the way we measure banks’ incentives to do league table management could be correlated with other bank characteristics that explain the supply of FOs. The within deal-client variation in LT\_contribution reflects the variation in the average distance between the bank and its competitors in the ranking. Since this variation mainly stems from variations in the number and value of deals advised by the bank’s competitors, it should be independent of the characteristics of the bank itself. However, recent league table performance, measured by the deviation variable, is correlated with the rank of the bank, which could affect the probability of providing a FO. Therefore, we control for the rank of the bank in the most recent league table, and we use bank-fixed effects to control for time-invariant heterogeneity between banks. Time-fixed effects are absent from this specification because the deal-client-fixed effects already absorb any time-specific characteristic that is common to all banks involved in the transaction.

The results of the analysis are presented in Table VI. We estimate the probability to do a FO using a linear probability model, in which the dependent variable is equal to 1 if the bank does a FO and 0 otherwise.<sup>19</sup> In Column 1, the LT\_contribution variable, which

19 Kisgen, Qian, and Song (2009) point out that in about one-third of their sample of FOs, Thomson either indicates no fairness opinion when the financial advisor did one in reality or does not mention the presence of an additional fairness opinion provider. In the summer 2010, however, Thomson started to provide additional data on fairness opinions (in particular the valuation materials contained in the fairness opinions letters) and reviewed all the information reported in the database about fairness opinions issued from 2000 onwards.

**Table VI.** Determinants of FOs

This table presents OLS regressions examining the effect of league table incentives on the probability to be the bank providing a FO when there are multiple banks advising the same client in a given transaction. The analysis is at the mandate level. The sample excludes transactions done in January, and is restricted to co-mandate observations. The dependent variable is Fo, an indicator variable equal to 1 if the mandate is a FO. LT\_contribution is the average impact of the deal on the gap in league table credit between the bank and its twenty-four competitors in the league table at the end of the week before the deal announcement date. For each competitor, this impact is calculated as the log of the league table credit of the deal divided by the absolute value of the difference between the current total league table credit of the bank and that of the competitor. Deviation is the number of ranks gained/lost by the bank in the league table since the beginning of the year, calculated at the end of the week before the deal announcement date. LT\_rank is the rank of the bank in the league table at the end of the week before the deal announcement date, multiplied by – 1. The definition of other variables is in Table AIII. Standard errors are clustered at the bank level. *t*-Statistics are in parentheses.

	(1)	(2)
Dependent variable	Fo	Fo
LT_contribution	0.043*** (3.43)	0.040*** (3.16)
Deviation	–0.003** (–2.10)	–0.004** (–2.02)
LT_rank	0.007*** (2.76)	0.007*** (2.86)
Prev_deals_target		0.002 (0.75)
Prev_deals_acquiror		–0.001* (–1.98)
Prev_deals_target×Sell_side		–0.001 (–0.73)
Prev_deals_acquirer×Sell_side		0.000 (0.70)
LY_mkt_share		–0.055 (–0.69)
Client_buy_performance		0.588 (1.15)
Client_sell_performance		–0.166 (–1.63)
Bank-fixed effects	Yes	Yes
Deal-client-fixed effects	Yes	Yes
Adjusted <i>R</i> <sup>2</sup>	53.6%	53.8%
N	6,797	6,767

Note: \*Significant at 10%; \*\*Significant at 5%; \*\*\*Significant at 1%.

measures the impact of the deal on the gap between the bank and its competitors in the league table, has a positive and statistically significant coefficient. The bank that lost (gained) more ranks in recent league tables is also more (less) likely to be the one that does a FO (the coefficient on the deviation variable is negative and significant). Consistent with

our hypothesis, these results show that among all the banks that advise a given client in a given transaction, the bank that benefits the most from the transaction in terms of ranking improvement or that had the worst recent league table performance is the more likely to do a FO. We investigate the robustness of these results in Column 2 by adding additional time-varying controls at the bank level. The coefficient on LT\_contribution is still positive and statistically significant at the 1% level, and its economic magnitude is almost the same as in the regression of the first column. Likewise, the coefficient on deviation is still negative and statistically significant.

Next, we test the league table management hypothesis at the bank-quarter level. Such a setting excludes the use of the LT\_contribution variable, which is deal specific. Instead, it allows us to focus on the deviation variable, which is equal, in this context, to the change in the bank's league table rank between the end of the previous year and the end of the previous quarter. Our hypothesis is that banks that lost (gained) ranks in the most recent quarterly ranking relative to the last annual ranking do more (less) FOs in the current quarter. In the first two columns, we focus on "published ranks," that is, ranks between 1 and 25, and we assign rank 26 to banks that do not appear in the league table. We run panel regressions including bank- and time-fixed effects, and controlling for the rank of the bank at the end of the previous quarter. The dependent variable is the number of FOs done by the bank in the quarter as a fraction of its total number of deals (in Column 1) or in absolute terms (in Column 2).<sup>20</sup>

The results of these tests, which appear in [Table VII](#), are consistent with our hypothesis. A bank that has lost (gained) a rank between the last annual ranking and the last quarterly ranking increases (decreases) its number of FOs by 0.03 (about 4% of the within-bank standard deviation of the number of FOs) and its percentage of FOs by 0.2% (about 2% of the within-bank standard deviation of that variable) on average. To ensure that these results are not driven by demand (e.g., lower-ranked banks facing higher demand for FOs and lower demand for more lucrative mandates), we control for the rank of the bank. In fact, the regression of Column 2 shows that better-ranked banks tend to do more, not fewer, FOs. The fact that banks that lost ranks, and thus face lower demand for FOs, increase their number of FOs is therefore consistent with a supply interpretation of our results, whereby such banks voluntarily do more FOs.

In Columns 3 and 4 of [Table VII](#), we repeat this test using the rank of the bank in the full ranking instead of the rank from the published league table. We include a dummy variable equal to 1 if the bank appears in the league table (i.e., in the top twenty-five banks) at the end of the previous quarter, and we interact this dummy variable with the deviation variable. These tests show that banks do more FOs after losing a rank only when they appear in the league table: the coefficient on the deviation variable is small and statistically insignificant, while the coefficient on the interaction term deviation  $\times$  above25 is negative and statistically significant. This is consistent with our previous findings that gaining ranks matter for future M&A activity only for banks that are in the league table. Banks that do not

<sup>20</sup> In some cases, a bank that is the only advisor of a client also provides a fairness opinion. Such a fairness opinion is unlikely to be done to manage the bank's rank in the league table, since the bank already obtains league table credit for that transaction through its advisory role. In our tests, we ignore these fairness opinions and focus on FOs done in a co-mandate context, that is, when there are other banks involved in the same transaction with the same client.

**Table VII.** The effect of a loss/gain of ranks on the number of FOs

This table presents panel regressions examining the effect of a change in the league table ranking on the number of FOs provided by the bank in a co-mandate context. The analysis is at the quarter-bank level. The sample excludes transactions done in the first quarter of each year. In specifications (1) and (3), the dependent variable is the quarterly number of FOs done by the bank in a co-mandate context as a percentage of its total number of mandates. In specifications (2) and (4), the dependent variable is the quarterly number of FOs done by the bank in a co-mandate context. In specifications (1) and (2), we consider the effect of a loss/gain of ranks *inside* the league table only. In specifications (3) and (4), we consider the effect of a loss/gain of ranks in the *full* ranking of M&A advisors.  $\text{Deviation}_{q-1}$  is the number of ranks gained/lost between the end of the previous year and the end of the previous quarter.  $\text{LT\_rank}_{q-1}$  is the rank of the bank in the league table at the end of the previous quarter, multiplied by  $-1$ .  $\text{Full\_rank}_{q-1}$  is the rank of the bank in the full ranking of M&A advisors at the end of the previous quarter, multiplied by  $-1$ .  $\text{Above25}_{q-1}$  is a dummy variable equal to 1 if the bank was ranked inside the league table at the end of the previous quarter.  $\text{Client\_buy\_performance}_{q-1}$  (respectively,  $\text{Client\_sell\_performance}_{q-1}$ ) is the average CAR( $-1, +1$ ) of clients of the bank in buy-side (respectively, sell-side) mandates in the last 3 years, as at the end of the previous quarter. Standard errors are clustered at the bank level.  $t$ -Statistics are in parentheses.

	Published ranking		Full ranking	
	(1)	(2)	(3)	(4)
Dependent variable	Pct_fo_co <sub>q</sub>	Nb_fo_co <sub>q</sub>	Pct_fo_co <sub>q</sub>	Nb_fo_co <sub>q</sub>
Deviation <sub>q-1</sub>	-0.178** (-2.10)	-0.033*** (-3.90)	0.006 (0.99)	0.000 (-0.99)
Above25 <sub>q-1</sub>			0.549 (0.75)	0.045 (0.84)
Deviation <sub>q-1</sub> × Above25 <sub>q-1</sub>			-0.050*** (-3.02)	-0.002*** (-2.69)
LT_rank <sub>q-1</sub>	0.021 (0.31)	0.032*** (3.30)		
Full_rank <sub>q-1</sub>			0.008 (1.37)	0.002*** (2.99)
Client_buy_performance <sub>q-1</sub>	-0.204 (-1.25)	-0.002 (-0.40)	-0.197 (-1.25)	-0.003 (-0.59)
Client_sell_performance <sub>q-1</sub>	0.054 (1.54)	0.002 (1.16)	0.058 (1.64)	0.001 (0.42)
Year-quarter-fixed effects	Yes	Yes	Yes	Yes
Bank-fixed effects	Yes	Yes	Yes	Yes
Adjusted $R^2$	10.4%	49.9%	11.1%	49.7%
N	2,060	2,060	2,060	2,060

Note: \*Significant at 10%; \*\*Significant at 5%; \*\*\*Significant at 1%.

appear in the published ranking have less incentives to manage their ranks, and therefore they do not.

Overall, these results are consistent with our hypothesis that banks are more likely to provide FOs in transactions that have a bigger impact on their future ranking and when they lost more (or gained fewer) ranks in recent league tables.

### 4.3 Fees

To increase its rank in the league table, a bank can also reduce the fees it charges for a given transaction. By doing so, the bank increases its chances of obtaining the mandate and the corresponding deal credit in the league table. The league table management hypothesis predicts that banks decrease their fees for deals that have a strong impact on their league table position and after poor recent league table performance. We test these predictions using mandate-level OLS regressions in which the dependent variable is the fees as a percentage of the deal value (in basis points). Information on fees is available in 3,052 mandates, which represents less than 10% of the total sample. This could bias the results. However, if the disclosure of fees in SDC is not random, then it is conceivable that banks do not disclose their fees precisely when they are willing to cut their fees in order to obtain a mandate. If this is the case, missing fees can bias our results in the direction of rejecting our hypothesis.

In [Table VIII](#), we use the same specification as in earlier FO tests. We focus on co-mandate situations and include deal-client-fixed effects, which allows us to compare directly different banks that participate in the same transaction with the same client. As in previous tests, the use of the deal-client-fixed effects is key because it allows us to control for any deal- and client-specific characteristic that affect the fees negotiated with the investment bank. The main variables of interest are *LT\_contribution* and *deviation*, which proxy for the relative impact of the deal on the ranking of the bank and for the recent league table performance of the bank, respectively. The coefficient on *LT\_contribution* is significantly negative. Consistent with our hypothesis, this suggests that for a given deal-client, the bank that has the most to gain from the deal in terms of league table credit (i.e., the bank with the larger *LT\_contribution*) tends to be the bank that charges the lower fees. The coefficient on *deviation* is positive and significant. Thus, in a co-mandate context, controlling for time-varying bank characteristics and bank-fixed effects, the bank with the lower fees is, on average, the bank that lost more (or gained less) ranks in recent league tables.

This result does not seem to be driven by better-ranked banks charging higher fees. In fact, in the second column of [Table VIII](#), in which we add bank-specific controls, the rank of the bank in the league table has a marginally significant negative impact on fees. This seems to contradict the results of [Walter, Yawson, and Yeung \(2008\)](#) and [Golubov, Petmezas, and Travlos \(2012\)](#), who find that more prestigious banks charge higher fees. This is because variables measuring past market share of the bank and previous relations between the bank and the client, as well as bank-fixed effects, capture bank characteristics that are related to bank prestige and that explain a large fraction of the fees.<sup>21</sup> Time-varying bank quality may also be associated with *deviation*, which measures the change in ranks since the beginning of the year. To account for this possibility, we control for bank quality using measures of stock price performance of bank's clients in recent deals. Consistent with [McConnell and Sibilkov \(2014\)](#), recent performance of the bank in buy-side mandates does affect fees positively. Adding these variables as controls does not eliminate the effect of *LT\_contribution* and *deviation* on fees. Obviously, these variables could capture bank quality imperfectly. For instance, significant changes in the bank's structure can affect the bank's rank in the league table and its fees before it is captured by recent

21 When we eliminate bank-fixed effects, we find a positive relation between a bank's rank and its fees. In terms of economic magnitude, a one-standard deviation change in *deviation* is associated with about eight basis points, corresponding to about 210,000 dollars for the median transaction in our sample.

**Table VIII.** Determinants of fees.

This table presents OLS regressions examining the effect of league table incentives on the amount of fees when there are multiple banks on the same side of an M&A transaction. The analysis is at the mandate level. The sample excludes transactions done in January, and is restricted to co-mandate observations. The dependent variable is the total fee of the bank divided by the total deal value (expressed in basis points). LT\_contribution is the average impact of the deal on the gap in league table credit between the bank and its twenty-four competitors in the league table at the end of the week before the deal announcement date. For each competitor, this impact is calculated as the log of the league table credit of the deal divided by the absolute value of the difference between the current total league table credit of the bank and that of the competitor. Deviation is the number of ranks gained/lost by the bank in the league table since the beginning of the year, calculated at the end of the week before the deal announcement date. LT\_rank is the rank of the bank in the league table at the end of the week before the deal announcement date, multiplied by  $-1$ . Other variables are defined in Table All. Standard errors are clustered at the bank level. *t*-Statistics are in parentheses.

Dependent variable	(1) Fee	(2) Fee
LT_contribution	-9.269** (-2.24)	-9.031** (-2.03)
Deviation	1.930** (2.08)	3.279** (2.13)
LT_rank	-0.964 (-0.83)	-2.234 (-1.62)
Fo	-31.909* (-1.86)	-34.132** (-2.03)
Client_buy_performance		4.721** (2.11)
Client_sell_performance		-0.349 (-0.84)
Prev_deals_target		-0.94 (-0.88)
Prev_deals_acquiror		-0.546 (-0.45)
Prev_deals_target $\times$ Sell_side		1.87 (1.49)
Prev_deals_acquirer $\times$ Sell_side		0.523 (0.45)
LY_mkt_share		115.476 (1.66)
Side_added_order		4.503 (0.84)
Time_to_notif		-0.185** (-2.05)
Bank-fixed effects	Yes	Yes
Deal-client-fixed effects	Yes	Yes
Adjusted $R^2$	76.0%	75.3%
N	648	647

Note: \*significant at 10%; \*\*significant at 5%; \*\*\*significant at 1%.

client performance. To account for this possibility, we run (unreported) robustness tests, in which we focus on small rank changes (deviation in  $[-1, +1]$ ) and on short periods (the first 6 months of the year). Doing so reduces sample size and therefore the power of the tests, but does not eliminate the effects discussed above.

#### 4.4 The Effects of League Table Management

The goal of this section is to understand the consequences of league table management. Results from the previous section show that the incentives created by league tables can lead to reductions in fees, a positive effect for M&A clients. These incentives may also affect the quality of banks' services. FOs done by banks in search of league table credits might be of lower quality if banks see these mandates more as an efficient way to obtain league table credits than as usual advisory work. To test this, we examine the quality of FOs done in a co-mandate context. We use two measures of quality of the FO. The first one, *Valuation\_accuracy*, is similar to the variable [Cain and Denis \(2013\)](#) use to measure the informativeness of a FO and the bias of FO providers. If the FO valuation of the target is correct, then the difference between the reported "fair" price and the actual price paid to acquire the target represents the gain or the loss made by the bidder in the transaction. Because this change in wealth is also reflected in the change in market value of the bidder when the deal is announced, [Cain and Denis \(2013\)](#) propose to evaluate the accuracy of the FO by comparing the actual change in market value of the bidder when the deal is announced with the gain/loss predicted by the bank given the average fair price reported in the FO. *Valuation\_accuracy* is the absolute value of this difference multiplied it by  $-1$ , so that the larger the variable, the more accurate the FO valuation. The second measure of FO quality is the size of the valuation range in the FO. The larger the valuation range, the higher the uncertainty on the fair price of the transaction, and the lower the quality of the FO.

We ask whether FOs are of lower quality when they are more likely to be motivated by league table concerns, that is, when they have a strong league table effect for the banks that provide them or when they are done by banks with poorer recent league table performance. Ideally, we would like to adopt a similar strategy as in [Tables V](#) and [VII](#), in which deal-client-fixed effects allow us to compare multiples FOs for the same deal-client. This would address the concern that banks with more incentives to engage in league table management are forced to provide FOs in transactions with higher execution risk. Because situations with multiple FOs are rare (1% of our deals have multiple FO providers), we cannot use such a strategy. Instead we control for as many observable deal and client characteristics as possible.

In [Table IX](#), we use OLS regressions with time- and bank-fixed effects, in which the dependent variable is the accuracy of the FO valuation in specification (1) and the size of the valuation range in specification (2). The main explanatory variables are the effect of the deal on the relative league table position of the bank (*LT\_contribution*) and the recent league table performance of the bank (*deviation*). The recent league table performance of the bank does not affect the quality of the FO, but the effect of the deal on the relative league table position of the bank does: FOs with stronger league table implications for the bank (i.e., a larger *LT\_contribution*) are less accurate and have a wider valuation range. This is partially consistent with the hypothesis that FOs done for league table management purposes are of lower quality.

**Table IX.** The effect of league table incentives on the quality of FOs

This table presents OLS regressions examining the effects of league table incentives on the quality of FOs. The analysis is at the mandate level. The sample includes FOs done in a co-mandate context only and excludes transactions done in January. In Column 1, the dependent variable is Valuation\_accuracy, the absolute value of the valuation error of the FO, scaled by the deal value and multiplied by – 1. The valuation error is the difference between (1) the change in the market value of the bidder predicted when comparing the average target valuation in the FO with the price paid to acquire the target, and (2) the actual change in market value of the bidder around the deal announcement. In Column 2, the dependent variable is Valuation\_range, the size of the valuation range in the FO scaled by the offer price of the deal. LT\_contribution is the average impact of the deal on the gap in league table credit between the bank and its twenty-four competitors in the league table at the end of the week before the deal announcement date. For each competitor, this impact is calculated as the log of the league table credit of the deal divided by the absolute value of the difference between the current total league table credit of the bank and that of the competitor. Deviation is the number of ranks gained/lost by the bank in the league table since the beginning of the year, calculated at the end of the week before the deal announcement date. Control variables include Deal\_value, Deal\_value<sup>2</sup>, Friendly, Payment\_mix\_stock, Payment\_mix\_cash, Payment\_mix\_other, Tender, Toehold, Same\_industry, Cross\_border, Challenge, Defense. These variables are defined in Table AIII. All control variables as well as the fixed effects are interacted with Sell\_side, an indicator variable equal to one if the mandate is a sell mandate. Standard errors are clustered at the bank level. *t*-Statistics are in parentheses.

	(1)	(2)
Dependent variable	Valuation_accuracy	Valuation_range
LT_contribution	–0.0260** (–2.18)	0.0448*** (2.94)
Deviation	0.0003 (0.05)	–0.0030 (–0.67)
Year-fixed effects	Yes	Yes
Bank-fixed effects	Yes	Yes
Controls	Yes	Yes
Adjusted R <sup>2</sup>	27.4%	24.4%
N	177	356

Note: \*Significant at 10%; \*\*Significant at 5%; \*\*\*Significant at 1%.

## 5. Conclusion

This paper shows that league tables have a significant influence on M&A advisory business practice. The rank of a bank in the league table is a significant predictor of its future deal flow. This induces banks to manage their league table ranks by selling FOs or reducing their fees. Banks are more likely to do so when participating in a transaction is more likely to imply substantial changes in the league table position of the bank or for banks that have performed poorly in recent league table rankings. Thus, league tables play an important role in the competition for M&A mandates, which in turn affects M&A clients. On the positive side, they lead to lower fees by banks that are trying to gain ranks. On the other hand, league table management seems to have a negative effect on the quality of FOs done by banks.

This paper focuses on the impact of league tables in the M&A industry. These rankings probably affect the behavior of banks in other activities, for example security issuance. In these industries, which also represent large fee income for the banks and significant milestones in the life of companies, the real effects of league table management may also be large. For example, it might affect IPO fees or pricing, with important consequences for issuers. We leave the analysis of the impact of league tables in other banking activities for future research.

## Appendix A

### Any US Involvement Announced (AD41)

Financial Advisor	1/1/2006 - 12/31/2006				1/1/2005 - 12/31/2005			% Chg. in Rank Val
	Rank	Value US\$m	Rank	Mkt. Share	No. Deals	Rank	Value US\$m	
Goldman Sachs & Co	634,232.0	1	33.4	263	485,422.9	1	30.7	
Citigroup	505,330.1	2	26.6	210	290,354.3	4	74.0	
Morgan Stanley	482,534.1	3	25.4	217	433,197.2	2	11.4	
JP Morgan	480,471.9	4	25.3	248	335,617.4	3	43.2	
Credit Suisse	393,516.4	5	20.7	207	189,470.7	8	107.7	
Lehman Brothers	387,351.5	6	20.4	162	232,769.4	6	66.4	
Merrill Lynch	365,073.8	7	19.2	179	252,363.8	5	44.7	
UBS	280,066.0	8	14.7	214	226,264.2	7	23.8	
Banc of America Securities LLC	230,822.9	9	12.2	118	149,283.2	10	54.6	
Lazard	205,304.8	10	10.8	96	146,742.2	11	39.9	
Evercore Partners	187,245.7	11	9.9	31	59,966.9	14	212.2	
Deutsche Bank AG	173,182.5	12	9.1	94	110,419.1	12	56.8	
Bear Stearns & Co Inc	147,879.2	13	7.8	54	178,781.0	9	-17.3	
Houlihan Lokey Howard & Zukin	117,652.0	14	6.2	147	30,638.5	19	284.0	
Wachovia Corp	109,021.9	15	5.7	59	48,773.6	15	123.5	
Blackstone Group LP	106,101.5	16	5.6	25	61,944.2	13	71.3	
Rothschild	82,898.1	17	4.4	81	26,461.8	22	213.3	
BNP Paribas SA	46,015.2	18	2.4	16	6,420.9	41	616.6	
ABN AMRO	41,764.8	19	2.2	30	8,521.3	35	390.1	
Sandler O'Neill Partners	36,835.2	20	1.9	69	6,731.1	40	447.2	
Greenhill & Co, LLC	29,754.1	21	1.6	22	19,630.9	24	51.6	
Peter J. Solomon Co Ltd	28,909.8	22	1.5	7	18,635.0	25	55.1	
Global Leisure Partners LLP	27,388.7	23	1.4	1	-	-	-	
Macquarie Bank	26,239.3	24	1.4	37	8,692.2	34	201.9	
Societe Generale	25,386.9	25	1.3	8	5,287.3	46	380.1	
Subtotal without Financial Advisor	211,354.1	-	11.1	10,317	165,380.9	-	27.8	
Subtotal with Financial Advisor	1,689,116.4	-	88.9	3,090	1,207,015.7	-	39.9	
Industry Total	1,900,470.4	-	100.0	13,407	1,372,396.5	-	38.5	

**Figure A1.** M&A league table published by Thomson Financial for 2006

M&A financial advisor league table for the period January 1, 2006–December 31, 2006. The ranking includes any financial advisor role in any deal announced to a US M&A client.

Source: Thomson Financial.

**Table A1.** League table construction

This table describes the procedure we use to construct league tables in the 1999–2010 period. We use the same criteria as Thomson. Specifically, to calculate the league table credit of a bank in period  $p$ , we use the three steps below.

1. For each deal, construct an indicator variable equal to 1 if the bank is part of the deal and its role in the deal is eligible for league table purposes. This variable is equal to 1 if the following conditions are met and 0 otherwise:
  - the deal announcement date is in period  $p$ ,
  - the date at which the financial advisor is added to the SDC database is in period  $p$ ,
  - the deal status is either completed or withdrawn,
  - if the deal status is withdrawn, the withdrawal date is after the end of period  $p$ ,
  - the target or the acquirer or any of their parent companies is in the USA.
2. Calculate league table credit, equal to the last historical deal value available at the time of the construction of the league table, plus the net debt of the target company if 100% of the economic interest of the target is acquired from an initial holding of less than 50%.
3. Accumulate the value credited at the level of bank's parent. For that purpose, we manually identify the parent of each financial advisor at the time of the publication of the league table.

**Table AII.** Comparison of published and estimated league tables

This appendix presents a comparison between ranks in historical league tables published in the press by Thomson Financial and those we construct as described in Table A1. The matching score on Rank is the percentage of banks with the same rank in the two league tables. The matching score on Rank value is the average of the ratio of estimated to published total accumulated deal value. Rank deviation is the difference in absolute terms between the estimated rank and the published rank. Total mean is the average rank deviation across all twenty-five banks in the ranking. Non-matched mean is the average rank deviation across banks with estimated ranks different from their published ranks.

Year	Quarter	Matching score		Rank deviation	
		Rank (%)	Rank value (%)	Total mean	Non-matched mean
2000	Q4	60.0	92.5	0.76	1.90
2001	Q1	60.0	93.9	0.76	1.90
	Q2	56.0	94.6	0.72	1.64
	Q3	64.0	94.9	0.56	1.56
	Q4	72.0	94.8	0.48	1.71
2002	Q1	60.0	95.2	0.52	1.30
	Q2	84.0	92.9	0.16	1.00
	Q3	68.0	94.4	0.48	1.50
	Q4	76.0	96.3	0.40	1.67
2003	Q1	52.0	83.5	0.88	1.83
	Q2	72.0	94.1	0.32	1.14
	Q3	92.0	98.7	0.08	1.00
	Q4	76.0	97.8	0.24	1.00
2004	Q1	84.0	96.3	0.20	1.25
	Q2	92.0	97.4	0.08	1.00
	Q3	92.0	97.6	0.08	1.00
	Q4	92.0	99.1	0.08	1.00
2005	Q1	76.0	92.1	0.56	2.33
	Q2	92.0	96.4	0.08	1.00
	Q3	88.0	98.0	0.16	1.33
	Q4	72.0	96.8	0.28	1.00
2006	Q1	56.0	93.4	0.64	1.45
	Q2	76.0	97.1	0.32	1.33
	Q3	64.0	95.9	0.44	1.22
	Q4	84.0	97.9	0.16	1.00
2007	Q1	84.0	98.2	0.16	1.00
	Q2	84.0	97.7	0.16	1.00
	Q3	76.0	98.0	0.32	1.33
	Q4	68.0	97.0	0.32	1.00
2008	Q1	68.0	91.9	0.52	1.63
	Q2	72.0	96.5	0.32	1.14
	Q3	76.0	98.4	0.32	1.33
	Q4	92.0	97.9	0.08	1.00
2009	Q1	84.0	92.3	0.36	2.25
	Q2	72.0	91.9	0.44	1.57
	Q3	76.0	94.8	0.24	1.00
	Q4	72.0	94.2	0.40	1.43
2010	Q1	84.0	97.9	0.16	1.00
	Q2	80.0	95.3	0.40	2.00
	Q3	100.0	98.7	0.00	0.00
	Q4	64.0	96.0	0.56	1.56
Mean		75.9	95.6	0.35	1.32
Median		76.0	96.3	0.32	1.30

**Table AIII.** Variables used in tests (in alphabetical order)

Variables used in mandate-level tests

Challenge: Indicator variable equal to 1 if the deal is reported as a challenged deal by Thomson SDC.

Client buy performance: Average of the bank clients' CAR ( $-1, +1$ ) in sell-side mandates over the last 3 years.

Client sell performance: Average of the bank clients' CAR ( $-1, +1$ ) in buy-side mandates over the last 3 years.

Cross\_border: Indicator variable equal to 1 if the acquirer and the target have different nation codes.

Deal\_size: Total deal value in US\$m.

Deal\_value: Log of the total deal value.

Defense: Indicator variable equal to 1 if any defense technique was used in the transaction.

Deviation: Number of ranks gained/lost by the bank since the end of the previous year, calculated at the end of the week prior to the deal announcement.

Fee: Total fees charged by the bank expressed in basis points of the total deal value.

FO: Indicator variable equal to 1 if the bank provides a FO.

FO\_co: Indicator variable equal to 1 if the mandate includes a FO and if the bank is not the only financial advisor of the company.

Friendly: Indicator variable equal to 1 if deal is not reported as "Hostile" or "Non-Solicited" by Thomson SDC.

LT\_contribution: Average impact of the deal on the gap in league table credit between the bank and its twenty-four competitors in the league table at the end of the week before the deal announcement date. For each competitor, this impact is calculated as the log of the league table credit of the deal divided by the absolute value of the difference between the current total league table credit of the bank and that of the competitor.

LT\_rank: Rank of the bank in the league table at the end of the week prior to the week of the deal announcement or at the end of the previous year depending on the specification. Banks not ranked in the league table (top twenty-five banks) are ranked twenty-six. This variable is multiplied by  $-1$  so that a higher rank indicates a better position in the ranking.

LY\_mkt\_share: Market share of the bank in the previous year based on deal value and defined as the total value of deals advised by the bank divided by the total value of deals announced.

Payment\_mix\_cash: Indicator variable equal to 1 if at least 50% of the transaction is paid in cash.

Payment\_mix\_other: Indicator variable equal to 1 if at least 50% of the transaction is neither paid in stock or in cash.

Payment\_mix\_stock: Indicator variable equal to 1 if at least 50% of the transaction is paid in stock.

Payment\_mix\_unknown: Indicator variable equal to 1 if at least 50% of the transaction type of payment is unknown.

Prev\_deals\_acquiror: Number of M&A transactions done by the acquiring firm in which the bank was a financial advisor in the past 5 years.

Prev\_deals\_target: Number of M&A transactions done by the target firm in which the bank was a financial advisor in the past 5 years.

Prev\_deals: Number of M&A transactions done by the firm in which the bank was a financial advisor in the past 5 years.

Prev\_M&A: Number of M&A transactions done by the firm in the past 5 years.

Same\_industry: Indicator variable equal to 1 if the acquirer and the target are in the same two-digit SIC code.

Sell\_side: Indicator variable equal to 1 if the mandate is a sell-side mandate.

Side\_added\_order: Order of notification of the advisory role of the bank to Thomson Financial for league table purposes compared with the other banks also mandated on the same side of the deal.

Tender: Indicator variable equal to 1 if the deal is reported as a tender offer by Thomson SDC.

(continued)

Time\_to\_notif: Number of days between the announcement date of the deal and the date of notification of the advisory role to Thomson Financial for league table purposes.

Toehold: Percentage of the target's stock held by the acquirer prior to the deal announcement.

Valuation\_Accuracy: Absolute value of the valuation error in the FO, scaled by the value of the transaction and multiplied by  $-1$ . The valuation error is the difference between (1) the change in the market value of the bidder predicted when comparing the average target valuation in the FO with the price paid to acquire the target, and (2) the actual change in market value of the bidder around the deal announcement.

Valuation\_Range: Size of the valuation range (max value – min value) disclosed in the FO, where max value (min value) is the high value (low value) obtained with the DCF methodology.

Win: Indicator variable equal to 1 if the bank obtains the mandate.

Variables used in bank-level tests

$\Delta$ Above25<sub>q</sub>: Indicator variable equal to 1 if the bank entered the league table,  $-1$  if the bank exited the league table, and 0 if it remained either inside or outside the league table in the year ending at the end of quarter  $q$ .

$\Delta$ Client Buy Performance<sub>q</sub>: Change in 3-year average client performance in buy-side mandates done by the bank relative to the same quarter of the previous year.

$\Delta$ Client Sell Performance<sub>q</sub>: Change in 3-year average client performance in sell-side mandates done by the bank relative to the same quarter of the previous year.

$\Delta$ Full\_rank<sub>q</sub>: Annual number of ranks gained/lost by the bank in the full ranking of M&A advisors at the end of quarter  $q$  of year  $y$  ( $\text{Full\_Rank}_{q,y} - \text{Full\_Rank}_{q,y-1}$ ).

$\Delta$ LT\_rank<sub>q</sub>: Annual number of ranks gained/lost by the bank in the league table at the end of quarter  $q$  of year  $y$  ( $\text{LT\_rank}_{q,y} - \text{LT\_rank}_{q,y-1}$ ).

$\Delta$ Mandates\_number<sub>q</sub>: Change in the number of M&A mandates, measured as the annual growth of the total number of mandates of the bank in quarter  $q$  of year  $y$  ( $\text{Mandates\_number}_{q,y}/\text{Mandates\_number}_{q,y-1} - 1$ ).

$\Delta$ Mandates\_value<sub>q</sub>: Change in the value of M&A mandates, measured as the annual growth of the total deal value of mandates of the bank in quarter  $q$  of year  $y$  ( $\text{Mandates\_value}_{q,y}/\text{Mandates\_value}_{q,y-1} - 1$ ).

$\Delta$ Mkt share<sub>q</sub>: Change in market share relative to the same quarter of the previous year. Market share is based on deal value and defined as the total value of deals advised by the bank divided by the total value of deals announced.

$\Delta$ Pct\_fo\_co<sub>q</sub>: Annual change in the percentage of co-FOs in quarter  $q$  of year  $y$  ( $\text{Pct\_fo\_co}_{q,y} - \text{Pct\_fo\_co}_{q,y-1}$ ).

Above25<sub>q</sub>: Indicator variable equal to 1 if the bank is among the twenty-five banks in the league table at the end quarter  $q$ .

Client Buy Performance<sub>q</sub>: Average of the bank clients' CAR ( $-1, +1$ ) in sell-side mandates over the last 3 years. Abnormal returns are calculated using the market model relative to the CRSP value-weighted index for US stocks, and to the global value-weighted index reported on Kenneth French's website for non-US stocks.

Client Sell Performance<sub>q</sub>: Average of the bank clients' CAR ( $-1, +1$ ) in buy-side mandates over the last 3 years. Abnormal returns are calculated using the market model relative to the CRSP value-weighted index for US stocks, and to the global value-weighted index reported on Kenneth French's website for non-US stocks.

Deviation<sub>q-1</sub>: Number of ranks gained/lost by the bank between the end of the previous year and the end of the previous quarter ( $q-1$ ). Tests that use this variable exclude first-quarter observations.

Exit: Index variable equal to the number of occurrences in which the bank gained ranks after a competitor exited the league table due to a bank merger.

Exit<sup>-1</sup>: Dummy variable equal to 1 if mergers will result in a gain of rank in 1 year.

Exit<sup>0</sup>: Dummy variable equal to 1 if mergers result in a gain of rank this year.

Exit<sup>+1</sup>: Dummy variable equal to 1 if mergers resulted in a gain of rank 1 year ago.

Exit<sup>++</sup>: Index variable equal to the number of ranks gained by the bank following bank mergers that occurred 2 years ago or more.

Full\_rank<sub>q</sub>: Rank of the bank in the full ranking of M&A advisors at the end of quarter  $q$ . This variable is multiplied by  $-1$  so that a higher rank indicates a better position in the ranking.

LT\_rank<sub>q</sub>: Rank of the bank in the league table at the end of quarter  $q$ . Banks not ranked in the league table (top twenty-five banks) are ranked twenty-six. This variable is multiplied by  $-1$  so that a higher rank indicates a better position in the ranking.

Mandates\_number<sub>q</sub>: Total number of deals announced and advised by the bank during quarter  $q$ .

Mandates\_value<sub>q</sub>: Total value of deals announced and advised by the bank during quarter  $q$ .

Nb\_fo\_co<sub>q</sub>: Total number of FOs done by the bank in a co-mandate context during quarter  $q$ .

Pct\_fo\_co<sub>q</sub>: Total number of FOs done by the bank in a co-mandate context as a percentage of total mandates during quarter  $q$ .

Total\_deal\_value<sub>q</sub>: Total value of deals announced during quarter  $q$ .

**Table AIV.** List of bank mergers

This appendix presents the list of mergers between investment banks that occurred over our sample period and led to a change in the ranking of M&A advisors in the US league tables. Date is the date at which the merger is effective. Last LT date is the date of the last league table in which the target bank was ranked before its exit as a result of a merger. Last LT rank is the last rank reported in the league table for the bank before the merger is effective. Banks that are not in the league table at the time of their merger are assigned rank 26.

Exit timing			Target investment bank		Acquirer	
Year	Date	Last LT date	Name	Last LT rank	Name	Last LT rank
2001	January 5, 2001	December 31, 2000	Wasserstein	7	Dresdner	13
2001	April 30, 2001	December 31, 2000	ING Baring US	16	ABN-AMRO	26
2003	December 23, 2003	September 30, 2003	Broadview	26	Jefferies	26
2006	August 22, 2006	June 30, 2006	Rohatyn	11	Lehman	2
2007	October 9, 2007	December 31, 2007	ABN Amro	19	Royal Bank of Scotland	26
2008	January 14, 2008	September 30, 2007	CIBC World	24	New Oppenheimer	26
2008	May 30, 2008	December 31, 2007	Bear Stern	13	JP Morgan	4
2008	September 22, 2008	September 30, 2008	Lehman Brothers	7	Barclays	26
2008	December 31, 2008	December 31, 2008	Wachovia	14	Wells Fargo	26
2009	January 1, 2009	December 31, 2008	Merril Lynch	6	Bank of America	11
2009	October 2, 2009	December 31, 2008	Fox-Pitt	19	Macquarie Bank	26

**Table AV.** Effects of Mergers between banks on the league table (illustration)

This example illustrates how we identify the effect of bank mergers on the league table of Q2 2007. We assume that, in the absence of mergers, the league table in Q2 2007 would have been the same as the league Table A1 year before, in Q2 2006. In other words, we focus only on rank changes directly caused by bank mergers, and we ignore any other rank changes that may have occurred between Q2 2006 and Q2 2007. In our example, only one merger affected the league table: the merger between Rohatyn and Lehman Brothers (in bold characters). We estimate how this merger affects the rank of each bank in Q2 2007 given the position of the target bank (Rohatyn) in the Q2 2006 league table. To do so, we create a pro-forma of the Q2 2006 league table reflecting rank changes directly induced by the merger. In this pro forma, the target bank disappears and its rank value is combined with that of the acquiring entity (Lehman Brothers). In this example, all banks ranked below Rohatyn gain one rank. Those banks are assigned to the treatment group. All other banks are assigned to the control group, with the exception of the acquiring bank that is excluded from the analysis.

League table as of Q2 2006			Pro-forma reflecting the effects of bank mergers			
Rank	Name	Rank value (M\$)	Rank	Name	Rank value (M\$)	Gain of ranks
1	GS	375.977	1	GS	375.977	0
2	LEH	252.986	2	LEH	342.418	Excluded
3	CITI	237.751	3	CITI	237.751	0
4	JPM	198.038	4	JPM	198.038	0
5	MORGAN-STANLEY	164.059	5	MORGAN-STANLEY	164.059	0
6	CREDIT-SUISSE	137.294	6	CREDIT-SUISSE	137.294	0
7	EVERCORE-PTNRS	134.162	7	EVERCORE-PTNRS	134.162	0
8	UBS	121.518	8	UBS	121.518	0
9	MERRILL	113.38	9	MERRILL	113.380	0
10	LAZARD	102.798	10	LAZARD	102.798	0
11	ROHATYN	89.432	11	DEUTSCHE-BANK	84.976	1
12	DEUTSCHE-BANK	84.976	12	BOA	61.916	1
13	BOA	61.916	13	BEAR	61.598	1
14	BEAR	61.598	14	WACHOVIA-CORP	59.898	1
15	WACHOVIA-CORP	59.898	15	ROTHSCH	56.448	1
16	ROTHSCH	56.448	16	BLACKSTONE	46.424	1
17	BLACKSTONE	46.424	17	BNP-PARIBAS	30.306	1
18	BNP-PARIBAS	30.306	18	SOC-GEN	27.908	1
19	SOC-GEN	27.908	19	HOULIHAN-LOKEY	26.963	1
20	HOULIHAN-LOKEY	26.963	20	ABN-AMRO	24.213	1
21	ABN-AMRO	24.213	21	HSBC	24.213	1
22	HSBC	24.213	22	RBC-CAP-MKTS	24.200	1
23	RBC-CAP-MKTS	24.200	23	KEEFE	20.196	1
24	KEEFE	20.196	24	SANDLER-ONEILL	19.602	1
25	SANDLER-ONEILL	19.602				

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