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Competition in investment banking

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Abstract We construct a comprehensive measure of overall investment banking competitiveness for follow-on offerings that aggregates the various dimensions of competition such as fees, pricing accuracy, analyst recommendations, distributional abilities, market making prowess, debt offering capabilities, and overall reputation. The measure allows us to incorporate trade-offs that investment banks may use in competing for new or established clients. We find that firms who switch to similar-quality underwriters enjoy more intense competition among investment banks which manifests in lower fees and more optimistic recommendations. Investment banks do compete vigorously for some clients, with the level of competition related to the likelihood of gaining or losing clients. Finally, investment banks not performing up to market norms are more likely to be dropped in the follow-on offering. In contrast, firms who seek a higher reputation underwriter face relatively non-competitive markets.

Investment banks play a crucial role in the capital raising process for firms. Recently, the nature of this role has come under increasing scrutiny, as evidenced by myriad investigations (and lawsuits) alleging collusive behavior, corrupt practices, and rapacious behavior by investment banks in the equity raising process. Specific allegations of misbehavior include biased analyst reports, after-market trading scandals, price-fixing, and collusion in the allocation and distribution of offerings. The recent Global Settlement separating research from the underwriting process is but one example of the regulatory concerns with the competitive nature and practices of this industry.

Despite these concerns, the exact nature and extent of competitive behavior in investment banking remains elusive. The difficulty in evaluating the competitive process stems from its complexity: underwriters provide a panoply of services, and so potentially compete through fees, pricing accuracy, analyst recommendations, distributional abilities, market making prowess, debt offering capabilities, and overall reputation. There is a large literature in finance examining investment banking and much of this work has focused on individual components of the competitive process, showing that provision of these services is linked with being an underwriter.[1] What

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[1] For example, fees in Chen and Ritter (2000), Burch et al. (2005); pricing discounts in Corwin (2003); analyst coverage in Corwin and Schultz (2005), Ljungqvist et al. (2006), Michaely and Womack (1999); market making in Ellis et al. (2000); reputation in Krigman et al. (2001); and other services in Benzoni and Schenone, 2010, Corwin and Schultz (2005), Drucker and Puri (2005), and Bharath et al. (2005).

is not apparent from extant research is how all of these dimensions combine to determine the overall nature of competition in investment banking. Do investment banks compete across the board in all these competitive dimensions, or do they take a strategy of competing along some dimensions and being less competitive along others? Or might they not compete at all, relying instead upon intangibles, such as market power and reputation to attract or retain business?

In this research, we seek to understand competition in investment banking at this aggregate level. To do so, we first address the basic question: How do underwriters compete for equity underwriting mandates? We conduct our analysis in the context of the market for underwriting services for follow-on equity offerings. This junction is particularly well suited for our purpose because many firms change underwriters from one equity offering to the next (see Krigman et al., 2001). In this process, investment banks can compete on many dimensions to attract new clients or to retain old ones, such as fees and discounts[2], reputation, analyst coverage, debt market capacity, and market making prowess. We investigate how these factors influence a firm's decision to retain or switch its underwriter.

While previous literature examines several aspects of competitive behavior across all potential underwriters, we focus most of our attention on the competitive behavior of the dominant participants. In this sense, our analysis can be viewed as a conditional analysis, compared with the unconditional analysis via a McFadden choice model (see Corwin and Schultz, 2005; Yasuda, 2005; Drucker and Puri, 2005). In these models, the authors use a pool of potential underwriters and the unconditional probability of being selected as an underwriter based on a particular investment-banking characteristic. We use this approach and find results similar to prior literature, but also find that most potential underwriters are passive, so including them in the analysis masks important differences between those who win the deal and those who do not. Therefore, our main focus is on the variation in investment banking characteristics, conditional on being chosen as an underwriter. The conditional analysis enables us to gain insights that are unattainable from the unconditional analysis alone. For example, compared to all potential underwriters, having a prior debt relationship with the equity-issuer is an important element in winning a deal. However, among those banks that are really in the running, prior debt relationship is not a distinguishing feature.

Rather than analyzing each element of the investment banking service to equity-issuer firms in isolation, we develop a comprehensive measure of overall investment banking competitiveness that captures non-price competition (e.g., reputation) as well as price competition (e.g., fees). This measure, the first that we are aware of to aggregate the various dimensions of competition, allows us to incorporate trade-offs that banks may use in competing for new or established clients. Thus, we are able to capture whether banks that charge higher fees compensate with better analyst coverage, market making activity, or the like, and whether banks choose to compete more vigorously for some types of clients than for others.

We hypothesize that if the market for underwriting is competitive then, after controlling for deal attributes, the overall competitiveness measure will be the same across firms. If, however, the market for underwriting is not competitive, then underwriters may or may not provide services to a firm, and the overall competitiveness measure for such deals will differ.

Using our competitiveness measure, we develop logistic regressions to estimate the likelihoods of losing or gaining an underwriting client. These regressions provide empirical evidence of the relative importance of the various elements of competition.

Our analysis on the extent of competition provides a number of important findings, four of which we highlight here. First, we find that the degree of market competitiveness is related to the motive for switching. Firms who seek a higher reputation underwriter face relatively non-competitive markets: underwriters offer few other inducements to switch, and "upgrading" firms pay higher fees to do so. Similarly, firms whose own performance has been weak may find their previous underwriter unwilling to continue in that capacity, and these switching firms also face higher fees and little competition for their business. This difficulty highlights the fact, also noted by Fernando et al. (2005), that competition in investment banking is best viewed as a matching problem: due to the prominent role of reputation, both investment banks and firms are careful about the company they keep.

Second, we show that investment banks do compete vigorously for some clients, with the level of competition related to the likelihood of gaining or losing clients. Investment banks reward loyalty, and non-switching clients tend to pay lower fees, and have more positive analyst ratings.[3] Interestingly, loyalty also goes both ways, as clients who enjoy better service before their new offerings are much more likely to remain with their underwriters. For customers who do switch to similarly ranked underwriters (so-called 'lateral' switchers), our overall competitive measure shows greater competition for these clients.

Third, we find that investment banks not performing up to market norms are more likely to be dropped in the follow-on offering. These norms differ across the various dimensions of competition: analyst recommendations below or even at the norm induce exit, with firms generally moving to a bank with a more optimistic view. Conversely, while market making below the norm also induces exit, issuers move to firms already dominant in market making only 30% of the time. Overall, our results suggest that aggressive investment banks are able to steal customers away from incumbent banks that perform below par, a result in accord with markets being competitive.

Fourth, we also develop a measure of investment bank loyalty. When we examine competitiveness at the investment bank level, rather than per deal, we find that the investment banks that are more competitive have more loyal clients. This suggests that although investment banks may selectively compete for some deals more than others, there are also differences between banks in average competitiveness, which corresponds to client loyalty.

Because our analysis of the overall competitiveness of the market necessarily requires analyses of the specific dimensions of this competition, our work also contributes to the extensive literature looking at the specific elements of investment banking. In particular, our results on fees, pricing, analyst coverage, market making, and ancillary services complement, extend, and occasionally contradict findings in this very large literature. With respect to fees, for example, Chen and Ritter (2000) show a cross-sectional variability in fees for follow-on equity offerings, a result we also find. Burch et al. (2005) also examine fees in follow-on offering, but while they find that switchers to "better" underwriters pay lower fees, we find

[2] As there is a prevailing market price for a seasoned equity offering, the discount refers to the difference in price between the last closing price and the offering price.

[3] These results are also consistent with Diamond (1984, 1991), Peterson and Rajan (1994) and Schnenone (2004) that banks with existing relationship with a firm obtains information about the firm that others do not have.