

Real effects of stock market valuations: Local valuation spillovers in M&A activity *

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Abstract

We document novel evidence of local valuation spillovers across a large sample of public firms during 1990-2019. Using a mutually exclusive stratification of subjects and local peers based on whether firms are from the most salient industries regionally, we document a strong positive association between firm-level acquisitiveness and exogenous variation in local peer valuations. Our measure for exogenous variation in local peers' valuations does not rely on outflow-induced price pressures. We find evidence that exogenous peer effects and correlated effects explain valuation spillovers in acquisitiveness, which suggests managers are unable to separate noise from information content in local peer valuations.

Keywords: Mergers and acquisitions, real effects, local spillovers, local valuation shocks

JEL Classification: G34, R30, R1

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1. Introduction

Academic interest in the relation between market valuations and M&A activity goes back to at least [Nelson \(1959\)](#) and continues to be extensively researched in the finance literature. For example, firm-level and aggregate equity-based valuation measures, such as price-earnings, market-to-book, and Tobin’s Q ratios, feature prominently as proxies for investment opportunities and capital market liquidity in the literature on M&A time-series patterns.¹ Similarly, market valuations play a central role in behavioral misvaluation explanations for M&A activity (see *e.g.*, [Rhodes-Kropf et al. \(2005\)](#); [Shleifer and Vishny \(2003\)](#)) and through their effect on the likelihood of being targeted in a takeover ([Jensen, 1993](#); [Manne, 1965](#); [Marris, 1964](#)).

A major challenge in establishing a causal link from market valuations to M&A activity and, more broadly, facing the literature on the real effects of market valuations, is to properly separate non-fundamental from fundamental variation in stock market valuations. Market valuations have real economic effects only to the extent that they do not proxy for fundamental factors, such as growth and investment opportunities or for slack in market frictions, such as liquidity and financing constraints. A common approach in the literature has been to exploit actual and, more recently, hypothetical sales of stock by mutual funds that experience large investors’ redemptions, referred to as outflow-induced price pressure measures to identify negative valuation shocks ([Coval and Stafford, 2007](#); [Dessaint et al., 2019](#); [Edmans et al., 2012](#)). One drawback of this approach in the context of analyzing M&A activity is that it only allows for negative valuation shocks. More importantly, [Wardlaw \(2020\)](#) and [Berger \(2019\)](#) show that outflow-induced price pressure measures are likely not orthogonal to fundamentals. [Wardlaw \(2020\)](#) also shows that many previously established results showing real economic effects of non-fundamental variation in stock market valuations based on outflow-induced price pressure measures are in doubt.

In this paper, we make a new contribution to this literature and ask whether variation in non-fundamental stock market valuations affects M&A activity. Our definition of non-fundamental valuation shocks does not rely on outflow-induced price pressure measures,

¹For example, in [Harford \(2005\)](#); [Jovanovic and Rousseau \(2002\)](#); [Maksimovic and Phillips \(2001\)](#) and [Bouwman et al. \(2009\)](#).

but follows the methodology proposed in [Leary and Roberts \(2014\)](#), which we describe in more detail below. In order to answer our research question, we analyze whether the relation between market valuations and M&A activity extends beyond a firms' own or even their industry's valuation, where we focus on the firms' location choices. We explore whether variation in local valuations of non-industry peers affects the variation in local firms' acquisitiveness. We refer to this as local valuation spillovers in acquisitiveness. To the extent that we identify such local spillovers, we analyze whether they represent real effects through the information content embedded in local peer valuations or represent a response to noise, measured as non-fundamental valuation shocks ([Baker et al., 2012](#)).

Our focus on the role of firms' local peers is motivated by the fast growing literature that seeks to understand how firms' location choices affect a variety of economic outcomes and corporate decision making, for example, through endogenous social interactions.² Particularly relevant in our context is the evidence of location fixed effects in industry-adjusted corporate market valuations and local spillover effects in firms' investment decisions ([Dougal et al., 2015, 2019](#)). Additionally, our focus on local valuation spillovers is motivated by the fact that existing academic evidence suggests that interactions among co-located firms affect firm decisions (*e.g.*, R&D and capital expenditures) and outcomes (*e.g.*, innovation and productivity). The impact of such interactions among co-located firms in the context of M&A has, however, not been explored. This is surprising given that M&A decisions rank among the most important corporate decisions with an ongoing active M&A market with more than \$10 trillion spent on domestic transactions since 2013.³

We start our empirical design with defining co-located firms as those that are headquartered within the same Bureau of Economic Analysis (BEA) Economic Area (EA).⁴ We define acquisitiveness of firms as the total dollars spent on control-seeking acquisitions made by a firm over a calendar year, scaled by its book value of assets at the beginning of

²Examples of other economic variables studied in the context of firm location include worker wages ([Baum-Snow and Pavan, 2012](#)), productivity ([Sonn and Storper, 2008](#)), innovation and R&D ([Parsons et al., 2018; Thompson and Fox-Kean, 2005](#)), and financial misconduct ([Dougal et al., 2019](#)).

³A notable exception is [Almazan et al. \(2010\)](#), who find that corporate location affects M&A opportunities.

⁴We focus on publicly-listed firms headquartered in one the 20 largest economic areas in the U.S. as identified by ([Dougal et al., 2015](#)). The 20 largest economic areas account for about 70% of total market value of all publicly-listed firm in the U.S.

the year. Our first goal is to answer whether there is evidence of location-specific spillovers in acquisitiveness in a comprehensive sample of public firms during the period 1990-2019. Specifically, we seek to understand whether the cross-sectional variation in local peer firm valuations helps to explain the variation in firm-level acquisitiveness. Evidence of such local valuation spillovers could reflect exogenous peer effects, but may also reflect correlated effects if firms chose to locate in the same EA because they have similar individual characteristics, face similar investment opportunities, or are exposed to a common local shock. This distinction is important, as correlated effects are typically not considered a true peer effect and, therefore, should not lead to causal inferences. In our analyses, we also distinguish exogenous and correlated effects from endogenous peer effects (Manski, 1993). An endogenous peer effect, in our context, implies that variation in firm-level acquisitiveness varies with the acquisitiveness instead of, or in addition to, the valuations of the local peers. Disentangling these effects is important for understanding whether stock market valuations have real effects on corporate decision making and helps to understand the underlying channels for local spillovers. Note that these three effects are not mutually exclusive and in order to properly identify the local valuation spillover effect as an exogenous peer effect our research design has to satisfy the following two conditions.

First, to avoid the reflection problem (Angrist, 2014; Manski, 1993), we have to categorize firms within each EA into peers and subjects in a mutually exclusive manner.⁵ At the same time, this delineation between subjects and peers has to be economically meaningful. We achieve both mutual exclusivity and economic meaning by defining peers as firms that belong to the dominant industries in an EA, which are by definition the most salient local industries, and subjects as firms that belong to non-dominant industries in each EA. For a given year, a dominant industry in an EA is defined as an industry from the 12 Fama-French industries (FF12) whose market capitalization share among all listed firms headquartered in the EA is on average 20% or more during the previous five years. Subject firms are identified from those FF12 industries not classified as dominant in an EA

⁵Per Manski (1993), reflection issues arise in peer effects studies due to individual outcomes being impacted by group outcomes while simultaneously impacting the outcome of the group. In the context of our study, a reflection issue could arise if firms or acquisitiveness simultaneously appear on both sides of the regression specification – on the left-hand side as subjects of peer effects and on the right-hand side as one of the peers that impact the outcomes of other focal firms.

in a given year. To further enhance the identification of peer effects, we eliminate subject firms from industries which have a market share in excess of ten percent in an EA.

Second, in order to identify exogenous peer effects, whereby peer valuations affect subject firms' acquisitiveness, the variation in peer characteristics (*i.e.*, their valuations) should be orthogonal to the variation of the same characteristics of the subjects and to fundamentals (Angrist, 2014; Leary and Roberts, 2014; Wardlaw, 2020). In our context, this condition would be violated, for example, if firms choose to locate around other firms, from within or outside the dominant industry, with which they have correlated investment opportunities. Such endogenous headquarter location choices may reflect firms' beliefs that aggregate peer valuations serve as a complementary source of information regarding their own investment opportunities, which allows them to reduce some noise in their own valuations. Learning, either perceived or real, could provide a plausible reason for acquisitiveness and local peer valuations to be correlated. However, such evidence reflects correlated effects and should not be interpreted as local exogenous peer effects. To interpret the evidence as exogenous peer effects and make causal inferences, we need to exploit exogenous variation (*i.e.*, shocks) in the valuation of peers and examine its correlation with the acquisitiveness of co-located firms. In addition, to exclude that local valuation spillovers are driven by outcome-based endogenous peer effects, we control for the average acquisitiveness of both the local dominant industry and same industry peers in our estimation.

In order to overcome the endogenous selection problem and properly identify non-fundamental variation in valuations, we follow the methodology in Leary and Roberts (2014). To that end, we define idiosyncratic equity shocks to local peers as the residuals from a four-factor model, where the estimated factor loadings capture the firm's sensitivity to portfolios consisting of (i) the market, (ii) firms in the same EA and FF12 industry, (iii) firms outside of the EA and same FF12 industry, and (iv) firms in the same EA and different FF12 industry. In other words, idiosyncratic equity shocks are orthogonal to all four factors. We define the average equity shock received by dominant industry firms in a given year as the average of the idiosyncratic equity shocks of firms in the dominant industry in an EA. Further, because the average Q of the local dominant industry also captures the impact of equity shocks received by the dominant industry firms, we follow

Dessaint et al. (2019) and orthogonalize this variable with respect to the average idiosyncratic shock received by local dominant industry peers. This orthogonalized component of Q can be thought of as the non-idiosyncratic component of the local peers' valuation vis-à-vis a subject firm. We examine the extent to which the average idiosyncratic shock to the local dominant industry impacts firms' acquisitiveness in excess of the non-idiosyncratic component in the local dominant industry valuation, which may be driven by fundamental factors.

As a preview of our baseline result of local valuation spillovers, consider the following anecdotal evidence of how acquisition decisions of local firms in non-dominant industries correlate with valuations of local firms in the dominant industry. In 2006, the Oil and Energy sector is the dominant industry in the Dallas-Fort Worth (TX) EA with an average Tobin's Q of 2.421. Firms in the Shops, Wholesale and Retail sector, an example of a non-dominant industry in the same region and year, have an average Tobin's Q of 1.592 and spent 7.3% of its book value of assets on acquisitions on average. This translates into almost \$4.7 billion (\$2019) in total or \$190 million per firm spent on acquisitions by firms in the Shops, Wholesale and Retail sector in the Dallas-Fort Worth (TX) EA in 2006.⁶ In the same year, the Shops, Wholesale and Retail sector is also a non-dominant industry in the Philadelphia-Camden-Vineland (PA-NJ-DE-MD) EA while the Chemicals sector is the dominant industry. In contrast to the scenario in Dallas, the average industry Tobin's Q is only 1.281 for the Chemicals sector and 2.634 for the Shops, Wholesale and Retail sector. Yet, despite the considerably higher Tobin's Q for the Shops, Wholesale and Retail sector in the Philadelphia-Camden-Vineland (PA-NJ-DE-MD) EA than in the Dallas-Fort Worth (TX) EA, firms only spent 0.02% of their book value on acquisitions in 2006, which translates in a total of only \$3.9 million (\$2019) or \$300,000 per firm spent on acquisitions.⁷

Consistent with the anecdotal evidence, our analyses uncover a relation between valua-

⁶There are 25 firms in the Shops, Wholesale and Retail sector headquartered in the Dallas-Fort Worth(TX) EA in 2006. Multiplying the average acquisitiveness (7.3%) by the average book value of assets (=\$2.6 billion) yields \$190 million in deal value per firm and aggregate deal value of \$4.7 billion in the EA (\$190 million \times 25).

⁷There are 13 firms in the Shops, Wholesale and Retail sector headquartered in the Philadelphia-Camden-Vineland (PA-NJ-DE-MD) EA in 2006. Multiplying the average acquisitiveness (0.02%) by the average book value of assets (\$1.5 billion) yields \$300,000 in deal value per firm and aggregate deal value of \$3.9 million in the EA (\$300,000 \times 13).

tions and M&A activity that extends beyond a firms' own or even their industry's valuation. Specifically, we find that the acquisitiveness of firms in non-dominant industries (subjects) in an EA relates strongly to the valuations of the local dominant industry firms (peers) even after controlling for the firm's own valuation, those of their local same-industry peers, the average acquisitiveness of the same and dominant industry, and a variety of firm-level controls. Furthermore, each specification includes different combinations of year, firm, and industry \times year fixed effects and have clustered standard errors at the industry and EA level. The estimated relation between the acquisitiveness of firms in non-dominant industries (subjects) in an EA and average valuations of the local dominant industry firms (peers) is both statistically and economically significant. For example, based on the most comprehensive specification we estimate, a one standard deviation increase in the valuation of firms' dominant industry peers, which represents a 40.0% increase in valuation relative to the mean, results in an increase of firm acquisitiveness by 0.007. This corresponds to an increase of 16.4% relative to the average level of acquisitiveness in our sample. Expressed in dollars, the aggregate impact of a standard deviation increase in dominant industry valuations on the deal activity originating from an EA in any given year is \$1.4 billion (\$2019) on average.⁸ Taken together, these findings add to the literature, which shows that firm investment decisions are sensitive to peer valuations. For example, while [Foucault and Fresard \(2014\)](#) show this sensitivity on the basis of industry peer valuations, we present novel evidence that this applies also firms outside their own industries but within the same EA.

We find no evidence of endogenous peer effects. Acquisition behavior of the peer group does not vary with acquisition behavior of the subject firms as none of the coefficients on average acquisitiveness are significant. This suggests that managerial herding behavior in the spirit of [Scharfstein and Stein \(1990\)](#) is an unlikely alternative explanation for local spillover effects in acquisitiveness. The lack of significance for the average acquisitiveness measures also makes it unlikely that our results are explained by managerial hubris,

⁸The average market value of assets of non-dominant industry firms within an EA is \$2.5 billion (\$2019). A 16.4% increase in acquisitiveness relative to the mean (0.0429) would imply an increase of \$17.5 million ($0.0429 \times 16.4\% \times \2.5 billion) for an average firm in an EA, which when multiplied by the average (median) number of non-dominant industry firms in an EA (80) (62) yields \$1.4 billion (\$1.09 billion) in additional deal value originating from an EA.

optimistic sentiments (Roll, 1986), or 'merger envy' (Goel and Thakor, 2010), fueled by one-on-one social interactions with local peers or via local media, whereby they (irrationally) mimic the actions of their peers and pursue more acquisitions.

We are cautious and do not interpret our findings thus far as causal because local valuation spillovers are consistent with both exogenous peer effects and correlated effects. For example, the correlation between acquisitiveness of firms in non-dominant industries and valuations of dominant industries could simply derive from broader regional shocks affecting the majority of firms in an EA. To test this hypothesis, we follow Dougal et al. (2015) and replace the valuation of firms' same industry and dominant industry local peers with the valuations of non-local firms from the same industry and dominant industry.⁹ The results continue to hold with this specification, which shows that location-specific components in the valuation of firms' local dominant industry peers due to location-specific shocks are an unlikely explanation for our results. In addition, we conduct a placebo test where we randomly match non-local firms based on industry-, size-, and valuations, and find insignificant coefficients on the average Q of dominant industry local peers.

To further identify local valuation spillovers as exogenous peer effects and separate these from correlated effects, we regress the acquisitiveness of non-dominant industry firms in an EA on the average idiosyncratic shock of the local dominant industries. We include the orthogonalized-component of the local dominant industry valuation, which captures the non-idiosyncratic component in dominant industry valuation. We find that firms' acquisitiveness positively and significantly relates to the idiosyncratic equity shock to the local dominant industry. A one standard deviation larger idiosyncratic equity shock to the local dominant industry increases the acquisitiveness of local non-dominant industry firms by 7% relative to the mean. This corroborates the faulty informant channel evidence from (Dessaint et al., 2019), but in the context of acquisitiveness and without relying on outflow-induced price pressure measures to identify equity shocks, which have been shown to be

⁹For example, for a firm in the manufacturing industry located in the Houston-Baytown-Huntsville EA, where the dominant industry is oil and gas, we replace the valuations of its local same industry peers (local firms in the manufacturing industry) with the valuations of manufacturing firms located outside of the Houston-Baytown-Huntsville EA. Similarly, we replace the valuation of the firms' local dominant industry peers (local firms from the oil and gas industry) with the valuations of firms from the oil and gas industry located outside the Houston-Baytown-Huntsville EA.

problematic (Berger, 2019; Wardlaw, 2020). This channel is based on managers' inability to separate noise from information in valuations. Since we control for the firm's own valuation, the response to the noise in peers' valuations measures a real effect of valuations beyond that explained by agency considerations or financial constraints. Overall, our results suggest that exogenous peer effects play an economically significant role in the relation between valuations and M&A activity. As expected, we also find that firms' acquisitiveness positively and significantly relates to the non-idiosyncratic component of local dominant industry valuations. This suggests that both exogenous peer (causal) effects and correlated (non-causal) effects, such as endogenous location choices, explain local valuation spillovers.

Firms may rationally adjust investment decisions based on noise in their own stock price. For example, firms may attempt to exploit inflated equity values by converting equity into real assets (Baker et al., 2012). However, our findings corroborate the faulty-informant channel (Dessaint et al., 2019; Morck et al., 1990), which implies an inadvertent and inefficient response to noise based on managers' inability to separate this from the information contained in signals from their peers' valuations. These may be, for example, signals about their own fundamentals, such as investment opportunities, market liquidity, financing constraints, or about opportunities to exploit inflated valuations (Bustamante and Fresard, 2020; Dessaint et al., 2019; Foucault and Fresard, 2014). Based on cross-sectional analyses, we find that our results continue to hold for acquisitions paid for with equity, but not for acquisitions paid for with cash. Similarly, we find no evidence of local valuation spillover effects for capital expenditures. This suggests that our local valuation spillover effect in acquisitiveness likely reflects noise in overvaluation signals, rather than noise in signals of fundamentals, which would affect corporate investment decisions more generally.

Our final analysis tests another implication of the faulty informant channel. To the extent that managers are influenced by faulty signals from other co-located firms and these faulty signals distort investment decisions, we expect acquisitiveness to be value-destroying. There is an extensive literature that questions the merits of M&A decisions and documents large and frequent losses for acquirer shareholders.¹⁰ Consistent with the faulty informant channel, we find a statistically and economically significant negative relation between three-

¹⁰Bruner (2004), summarizes results from academic and practitioner studies on M&A wealth effects.

and five-day cumulative abnormal returns (CAR) of deals made by subject firms in an EA and the idiosyncratic equity shock of their local dominant industry peers. The relation with CAR is insignificant for the non-idiosyncratic valuation of the local dominant industry peers, which suggests that the market penalizes deal making only if it is in response to the noise in the signals and not to the extent that firms could rationally exploit the information from the signal.

2. Motivation and empirical strategy

2.1. Real effects of stock market valuations

In their seminal paper, [Morck et al. \(1990\)](#) ask whether the stock market is merely a sideshow or affects corporate investment decisions. A large literature in corporate finance has since analyzed whether market valuations have real economic effects. A major challenge in establishing a causal link from market valuations to corporate investment decisions is to properly separate non-fundamental from fundamental variation in stock market valuations. One popular method to address this identification challenge is to exploit actual and, more recently, hypothetical sales of stock by mutual funds that experience large investors' redemptions, referred to as outflow-induced price pressure measures to identify negative valuation shocks ([Coval and Stafford, 2007](#); [Dessaint et al., 2019](#); [Edmans et al., 2012](#)). However, in recent work [Wardlaw \(2020\)](#) and [Berger \(2019\)](#) show that outflow-induced price pressure measures are likely not orthogonal to fundamentals and results in misidentification. This casts a new doubt on the robustness and even validity of previous findings in the literature presented as evidence of real effects. In fact, [Wardlaw \(2020\)](#) shows that many previously established results showing real economic effects of non-fundamental variation in stock market valuations based on outflow-induced price pressure measures may in fact no longer hold and encourages researchers to seek new ways to test whether market valuations have real economic consequences.

We make a new contribution to this literature and ask whether variation in non-fundamental stock market valuations affect M&A activity. In order to answer this question, we analyze whether the relation between market valuations and M&A activity extents be-

yond a firms' own or even their industry's valuation, where we focus on the firm's location. We explore whether variation in valuations of non-industry peers affect the variation in local firms' acquisitiveness. We refer to this as local valuation spillovers. To the extent that we can identify such a location channel, we analyze whether it represents real effects through the information content embedded in local peer valuations or represents a response to non-fundamental valuation shocks (*e.g.*, noise) (Baker et al., 2012). Importantly, our strategy to properly identify non-fundamental valuation shocks does not rely on outflow-induced price pressure measures, but follows the methodology proposed in Leary and Roberts (2014), which we describe in detail in Section 2.5 below.

2.2. Firm location and M&A activity

There is a growing literature that seeks to understand how spatial variation affects economic outcomes (Baum-Snow and Pavan, 2012; Dougal et al., 2015, 2019; Parsons et al., 2018; Sonn and Storper, 2008; Thompson and Fox-Kean, 2005). For example, Dougal et al. (2015) document strong and persistent regional effects in capital expenditures within the same industry and between disparate industries. They attribute their findings to local spillovers and endogenous peer effects driven by local social interactions, such as knowledge diffusion, technology spillovers, or consumption externalities. Dougal et al. (2019) present evidence of geographic variation in industry-adjusted corporate market valuations. We explore a similar location channel in the context of M&A decisions and seek to understand whether local non-fundamental valuation shocks affect acquisitiveness.

We focus on M&A decisions as they rank among the most important decisions for firms. Not surprisingly, understanding the patterns of M&A activity has played a prominent role in academic research in corporate finance. Much of this literature, starting with Nelson (1959), has noted strong correlations between firm and aggregate valuation levels and M&A activity. Yet, despite these literatures, there is no research on whether local spillovers and local peer effects affect merger and acquisition decisions. We aim to fill this void in the literature, which we believe is important given M&A decisions have important and unique features that set them apart from other corporate decisions, such capital expenditure decisions. For example, M&A decisions typically constitute high degrees of operational

complexity and often have profound valuation consequences. M&A activity, (‘acquisitiveness’), unlike capital expenditures, may also reflect synergistic opportunities or industry consolidation and thus take place in diminishing or expanding investment opportunity environments. Furthermore, given the possibility of stock payment, M&A activity, unlike capital expenditures may be driven by opportunistic behavior. While M&A decisions are more lumpy compared to capital expenditures, the literature has also uncovered a high degree of industry and time-series clustering in M&A activity. Such patterns are far less apparent for capital expenditures. Finally, in the context of spatial variation and local spillovers, capital expenditure typically involve net investments into assets at the firm’s location, but M&A decisions are likely less restricted by firms’ locations since acquisition targets can be located anywhere. This, could limit the scope for the type of local spillovers fueled by endogenous interactions among firms.¹¹

Consistent with the literature on spatial variation in economic outcomes, we find a high degree of variation in M&A activity across geographic regions for a comprehensive sample of public firms during the sample period 1990-2019. This variation remains even after controlling for industry and time-series effects. For example, the coefficient of variation in acquisitiveness among the largest 20 geographic regions by population is 35.7%. In comparison, the coefficient of variation for Tobin’s Q is 20.4%. We exploit this variation together with variation in firm and industry compositions across EAs and test whether valuations of local peer firms in dominant industries affect the acquisitiveness of firms in non-dominant industries, which we refer to as local valuation spillovers. As the example for Dallas (TX) and Philadelphia (PA) in the introduction illustrates, it appears that firms’ acquisition decisions correlate with valuations of local firms, but outside their own industry in addition to - or instead of - their own industry valuations across regions. Through our empirical analyses we present evidence that such location-specific valuation spillovers manifest themselves in a robust manner for a representative sample of firms across industries, regions, and time.

¹¹Similar to [Dougal et al. \(2015\)](#), we define firm location based on its headquarters location. However, firms often have operations in many different locations, so to the extent that investments in capex are made away from the headquarters location, this would also limit the scope for local endogenous interactions to explain spatial variation in capex.

2.3. Model specification

Following the literature, we define peer effects as the observation that outcomes of an individual (subject) may be correlated with those of her peers. [Manski \(1993\)](#) distinguishes among three sources of such peer effects. First, there are endogenous peer effects if the subject's actions are influenced by those of her peers. Second, there are exogenous (also referred to as are contextual peer effects) if the subject's actions are influenced by the characteristics of her peers. Finally, the actions of the subject and peer could be driven by a common factor, referred to as correlated effects. Both endogenous and exogenous effects are considered causal peer effects, whereas correlated effects are not.

In our setting, the acquisitiveness of a firm may be influenced by both the acquisition decisions of its local peers (endogenous peer effects) or by their characteristics (exogenous peer effects). Local valuation spillovers are consistent with the latter, but could also reflect correlated effects. To the extent that firms' acquisition decisions are correlated with those of its local peers because they are exposed to the same institutional or macro-economic conditions, local economic shocks area, or because of endogenous locations choices, we classify local valuation spillovers as correlated effects. In our empirical analyses we aim to disentangle these different underlying channels in order to identify whether market valuations have real effects on corporate acquisition decisions. To do so, we start with our model specification to estimate local valuation spillovers.

To estimate local valuation spillovers, our specification has to overcome the reflection problem ([Manski, 1993](#)). The reflection problem arises due to the fact that actions of a group are aggregations of individual actions. Group behavior, thus, influences individual actions while also being simultaneously influenced by individuals' actions ([Denis et al., 2020](#)). As a result, any outcome-on-outcome regression where the individual outcome is regressed on the average of its peers is mechanically biased towards a value of one ([Angrist, 2014](#)). To break the mechanical link between subject and peer firm outcomes, [Angrist \(2014\)](#) proposes that researchers should use an empirical design where the focal subjects of the peer effects are distinct from the peers that are the source or provide the mechanism for such effects. To achieve a clear separation between the focal subjects and the source of local peer effects, we identify within each EA a set of firms that belong to industries that are

locally dominant and hence whose actions or characteristics are likely to be salient. These locally salient firms, which we refer to as the dominant industry peers, are the source of local peer effects in our setting. The focal subjects of the peer effect within each economic area are firms in non-dominant industries. We provide a detailed explanation of how we define dominant and non-dominant industries in Section 2.5 below.

In order to test whether firm acquisitiveness correlates with the valuations of its local peers (*i.e.*, local valuation spillovers), we estimate the following empirical specification:

$$ACQ_{i,t} = \delta + \lambda_0 Q_{i,t-1} + \lambda_1 \bar{Q}_{i,-j,t-1}^\alpha + \lambda_2 \bar{Q}_{-i,j,t-1}^\alpha + \lambda_3 \overline{ACQ}_{i,-j,t-1}^\alpha + \lambda_4 \overline{ACQ}_{-i,j,t-1}^\alpha + \phi \mathbf{X}_{i,t-1} + \omega_i + \tau_t + \epsilon_{i,t}, \quad (1)$$

where the dependent variable $ACQ_{i,t}$ is the firm-level acquisitiveness of firm i in a non-dominant FF12 industry j within an EA α in year t . Acquisitiveness is measured as the total value of all control seeking acquisitions made by a firm over a calendar year scaled by its total market value of assets at the beginning of the calendar year.¹² The variable $\bar{Q}_{i,-j,t-1}^\alpha$ denotes the average valuation of a firm's local dominant industry peers (*i.e.*, headquartered in the same EA as firm i), excluding dominant industry firms which are from the same FF48 industry as firm i . The variable $\bar{Q}_{-i,j,t-1}^\alpha$ represents the average valuation of a firm's local FF12 industry peers, excluding firm i . Similarly, $\overline{ACQ}_{i,-j,t-1}^\alpha$ and $\overline{ACQ}_{-i,j,t-1}^\alpha$ represent the average acquisitiveness of a firm's local dominant industry peers, excluding dominant industry firms from the same FF48 industry as firm i and local peers in the same FF12 industry, excluding firm i , respectively.¹³ The coefficients λ_1 and λ_3 capture the marginal sensitivity of firms' acquisitiveness to either the characteristics (*i.e.*, valuations) or the actions (*i.e.*, acquisitiveness) of their local dominant industry peers. In other words, to the extent that there are exogenous and endogenous peer effects, we expect positive and significant coefficients on λ_1 and λ_3 . Importantly, besides controlling for the firms' local industry valuations, we also control for the firm's own lagged value of Tobin's Q, denoted

¹²All our results and conclusions remain qualitatively unchanged when we use the natural log of acquisitiveness as shown in the Table IA-3.

¹³While we do not specifically hypothesize why spillovers would run from dominant to non-dominant industry firms, we believe this is economically a more feasible channel than vice versa where dominant industry firms learn from non-dominant industry firms. In fact, finding that spillovers run also from non-dominant to dominant industry firms may, if anything, suggest a mechanical relation between peers and subjects. We find no results when we switch our peer and subject definitions.

as $Q_{i,t-1}$. In addition, \mathbf{X} is a vector of firm-level control variables, which include the lag of the log of the market value of equity ($Ln(MVE)_{t-1}$), sales growth ($SalesGrowth_{t-1}$), cash holdings ($Cash_{t-1}$), and leverage ($Leverage_{t-1}$). The appendix presents the definitions of all the variables used in the analyses. We also include firm (ω_i) and year (τ_t) fixed effects with standard errors clustered by FF48 industry and EA.¹⁴

In terms of proper identification derived from our specification, we note that our main coefficient of interest λ_1 is not subject to the reflection problem bias because of the mutual exclusivity between dominant and non-dominant industries within an economic area.¹⁵ Our reliance on a broad industry classification, such as FF12, allows us disentangle firm responses to the valuations of peers with which it is unlikely they would share any material economic ties.

2.4. Identifying local peer effects

As explained in Angrist (2014), it is important for the identification of peer effects that variation in peer characteristics is orthogonal to the variation of these characteristics of the subjects and orthogonal to fundamentals. In this context, random assignment of peers would help to better establish that the correlation between individuals' outcomes or actions and that of her peers, as estimated by λ_1 and λ_3 , can be interpreted as, respectively, exogenous and endogenous peer effect.¹⁶ In the absence of random peer assignment, unobserved characteristics that result in the formation of the peer groups may affect the estimate of λ_1 and λ_3 . For example, consider the scenario where firms choose to locate around other firms, from within or outside the dominant industry, with which they have correlated

¹⁴The bias as well as the consistency of standard errors depends on having a sufficient number of clusters (Pederson (2009), page 455). As illustrated in Figure 5 (page 456) of Pederson (2009) an increase in the number of clusters from 10 to 50 reduces the bias in the standard errors from 15% to 2%. To avoid the issues associated with having a small number of clusters, we cluster our standard errors at the FF48 industry level rather than at the FF12 industry level.

¹⁵This is also true for λ_2 , because λ_1 and λ_2 are not 'outcome-on-outcome' estimations, but instead measure the impact of *lagged* peer valuations (characteristic) on the subject firms' acquisitiveness (outcome). λ_4 , but not λ_3 could potentially be biased towards a value of one because of the reflection problem bias. However, this coefficient is insignificant in all of our estimations. Also, further alleviation concerns regarding the reflection problem, note that because local same industry peers and local dominant industry peers are strictly mutually exclusive, any potential bias introduced in one coefficient has no impact on the other coefficients.

¹⁶For example, Shue (2013) uses random assignment of incoming MBA students at Harvard Business School to different sections to identify peer effects in managerial decision making.

investment opportunities or are exposed to a common shock to the EA. Such endogenous headquarters location choices and local shocks may reflect firms' beliefs that the aggregate peer valuations may serve as a complementary source of information regarding their own investment opportunities, which would allow them to eliminate some of the noise in their own valuations. Such learning, either perceived or real, could then provide the channel for local spillovers. However, these are correlated effects and not causal peer effects. In contrast, if firms' location decisions are exogenous and shocks are not common across the EA, peer valuations would likely not possess additional fundamental information and, consequently, a positive correlation with idiosyncratic valuation shocks would not be the result of learning from the valuation of one's local peers, and instead reflect a causal peer effect.

Peer effects and correlated effects are not mutually exclusive and evidence of local valuation spillovers could be consistent with both. To disentangle these effects, we follow the methodological recommendations in Angrist (2014) and exploit exogenous variation in the valuation of peers and examine its impact on the acquisitiveness of co-located firms. Specifically, we follow the methodology proposed in Leary and Roberts (2014) and separate idiosyncratic shocks to the valuation of firms' local peers from non-idiosyncratic variation in the valuations of these peer firms. Idiosyncratic shocks to valuation of peers are by construction orthogonal to unobserved firm characteristics and fundamentals which, for example, may have driven firms' location choices or reflect local common shocks. We define an idiosyncratic equity shock, Γ , as the difference between the return of firm i in FF12 industry j , year t , and economic area α and its expected value from a linear regression specification *i.e.*, the residual as follows.

$$\Gamma_{i,j,t}^{\alpha} = R_{i,j,t}^{\alpha} - \widehat{R}_{i,j,t}^{\alpha}, \quad (2)$$

where

$$\begin{aligned} \widehat{R}_{i,j,t}^{\alpha} = & \widehat{\mu}_{i,j,t} + \widehat{\beta}_{i,j,t}^{Mkt} (R_t^{Mkt} - R_t^f) + \widehat{\beta}_{-i,j,t}^{\alpha} (R_{-i,j,t}^{\alpha} - R_{f,t}) + \\ & \widehat{\beta}_{i,j,t}^{-\alpha} (R_{i,j,t}^{-\alpha} - R_{f,t}) + \widehat{\beta}_{i,-j,t}^{\alpha} (R_{i,-j,t}^{\alpha} - R_{f,t}), \end{aligned} \quad (3)$$

where R_t^{Mkt} and R_t^f are the return on the CRSP value-weighted market portfolio and the risk-free rate. $\widehat{\beta}_{i,j,t}^{Mkt}$, $\widehat{\beta}_{-i,j,t}^{\alpha}$, $\widehat{\beta}_{i,j,t}^{-\alpha}$, and $\widehat{\beta}_{i,-j,t}^{\alpha}$ are the estimated factor loadings on the market

portfolio, the portfolio of firms in the same EA and the same FF12 industry as firm i but excluding firm i , the portfolio of firms in the same FF12 industry located outside of the EA of firm i , and the portfolio of firms in the same EA as firm i but in a different FF12 industry. Idiosyncratic equity shocks of firm i are thus orthogonal to the overall market factor, the returns of co-located firms that are from the same or from a different FF12 industry, and the returns of same industry firms located outside the EA.

Next, we average idiosyncratic shocks within each EA and year for firms in the dominant industry, where we again exclude firms in dominant industries which are in the same FF48 industry as firm i . We define this as the average idiosyncratic dominant industry equity shock ($\bar{\Gamma}_{i,-j,t}^\alpha$). Similarly, we average idiosyncratic equity shocks for each EA and year for all firms in the same industry as firm i , excluding firm i . We define this as the average idiosyncratic equity same industry shock ($(\bar{\Gamma}_{-i,j,t}^\alpha)$).

Our independent variable of interest in Eq.(1) is the average valuation of firms in the local dominant industry ($\bar{Q}_{i,-j,t}^\alpha$). It is important to note that this average valuation also captures the impact of equity shocks received by the dominant industry firms. The same is true for the average valuation of firms in the same FF12 industry as firm i . Therefore, we follow [Dessaint et al. \(2019\)](#) and further orthogonalize $\bar{Q}_{i,-j,t}^\alpha$ and $\bar{Q}_{-i,j,t}^\alpha$ with respect to the average idiosyncratic shock received by local industry peers. Specifically, we estimate the orthogonalized component of these variables as the residuals $\bar{\Omega}_{i,-j,t}^\alpha$ AND $\bar{\Omega}_{-i,j,t}^\alpha$ from linear regression specifications as follows.

$$\bar{Q}_{i,-j,t}^\alpha = \omega_i + \tau_t + \varphi_{i,-j,t}^\alpha \bar{\Gamma}_{i,-j,t}^\alpha + \bar{\Omega}_{i,-j,t}^\alpha \quad (4)$$

and

$$\bar{Q}_{-i,j,t}^\alpha = \omega_i + \tau_t + \varphi_{-i,j,t}^\alpha \bar{\Gamma}_{-i,j,t}^\alpha + \bar{\Omega}_{-i,j,t}^\alpha \quad (5)$$

where ω_i and τ_t are firm and year fixed effects. The orthogonalized components of Q , $\bar{\Omega}_{i,-j,t}^\alpha$ and $\bar{\Omega}_{-i,j,t}^\alpha$ can be interpreted as the average non-idiosyncratic components of the local peers' valuation vis-à-vis firm i in the local dominant industries and the same (non-dominant) industries as the subject firms. Based on splitting Tobin's Q in the idiosyncratic equity shock $\bar{\Gamma}$ and its non-idiosyncratic residual component $\bar{\Omega}$ for both the dominant

industry and the same industry local peers, we obtain the following augmented regression specification:

$$ACQ_{i,t} = \delta + \lambda_0 Q_{i,t-1} + \lambda_{10} \bar{\Gamma}_{i,-j,t}^\alpha + \lambda_{11} \bar{\Omega}_{i,-j,t}^\alpha + \lambda_{20} \bar{\Gamma}_{-i,j,t}^\alpha + \lambda_{21} \bar{\Omega}_{-i,j,t}^\alpha + \lambda_3 \overline{ACQ}_{i,-j,t-1}^\alpha + \lambda_4 \overline{ACQ}_{-i,j,t-1}^\alpha + \phi \mathbf{X}_{i,t-1} + \omega_i + \tau_t + \epsilon_{i,t} \quad (6)$$

From Eq.(6), we can derive the following testable implications with respect to our finding or local valuation spillovers in acquisitiveness. The existence of exogenous local peer effects would predict that $\lambda_{10} > 0$. In contrast, the existence of endogenous local peer effects would predict that $\lambda_3 > 0$. Lastly, the existence of correlated effects, would predict that $\lambda_{11} > 0$. The coefficients λ_{20} , λ_4 , and λ_{21} reflect the partial correlations between firm-level acquisitiveness and local industry peers' valuations and acquisitiveness. Controlling for industry-related drivers of acquisitiveness further helps to tease out the importance of locality in interpreting the coefficients of interest, λ_{10} , λ_3 , and λ_{20} .

2.5. Data and sample characteristics

To test these predictions, we construct a sample of all publicly listed firms in Compustat during the sample period 1990-2019 with at least \$10 million (\$ 2014) in total book value of assets. For each firm we calculate the market value of equity, total market value of assets (both in \$ 2014), Tobin's Q, and a number of other control variables (all variables are defined in the Appendix). We identify the location of the firms' headquarters by linking their ZIP codes (Compustat variable *ADDZIP*) to different EAs.¹⁷ We follow Dougal et al. (2015) and focus on the 20 largest EAs based on population size.¹⁸ The largest 20 EAs account for 72% of market value of all public firms in the U.S.¹⁹

We measure acquisitiveness at the firm level as the ratio of the aggregate value of all

¹⁷Since Compustat backfills all location data, the *ADDZIP* variable contains only header information, *i.e.*, the current location of firms' headquarters. We ignore changes in firm headquarters in our analysis. Dougal et al. (2015) report that between 1988 and 2006 there are 314 headquarter relocations among firms in the largest 20 EAs.

¹⁸The BEA defines an Economic Area as "the relevant regional markets surrounding metropolitan or micropolitan statistical areas" and are "mainly determined by labor commuting patterns that delineate local labor markets and that also serve as proxies for local markets where businesses in the areas sell their products." (Source: <http://www.bea.gov/regional/docs/econlist.cfm>)

¹⁹We use all firms, including those outside of the largest 20 EAs to calculate non-local (*i.e.*, outside an EA) industry portfolios, but otherwise discard these firms outside of the largest 20 EAs.

control-seeking deals undertaken by public firms over a calendar year scaled by its book market value of assets at the beginning of the calendar year. The data on control-seeking deals is from the Refinitiv SDC Platinum Merger & Acquisitions Database. We calculate EA-level averages of acquisitiveness measures. Table 1 shows time-series averages of the number of firms, market value of equity, Tobin’s Q and acquisitiveness for each of the 20 largest EAs (based on populations), ranked from highest to lowest acquisitiveness. For the 1990-2019 sample period, the Atlanta-Sandy Springs-Gainesville (GA-AL) economic area has the highest acquisitiveness and the Indianapolis-Anderson-Columbus (IN) economic area is in the bottom. It is clear from Table 1 there is considerable variation in the total number and total market valuation of firms across the EAs.

As we discussed in Section 2.3, in order to circumvent the reflection problem, it is critical to establish a clear and mutually exclusive separation between subjects and peers. We rely on a stratification based on the salience of an industry within an EA for a given year. In this context, peer firms belong to dominant industries, whereas subject firms do not. To create a strong delineation between these two categories, we identify an FF12 industry in an EA as dominant in year t if its market capitalization share, relative to all public firms headquartered in the EA, is at least 20% during the period $t - 5$ to $t - 1$. This yields on average of 1.6 dominant industries per EA within our sample. Over the 30-year sample period across the largest 20 EAs (*i.e.*, 600 EA-year observations), 292 EA-years have 1 dominant industry, 239 have 2 dominant industries and 52 have 3 dominant industries. For 17 EA-years we are unable to identify a dominant industry. Subject firms are identified from those FF12 industries which were not classified as local dominant industries in an EA in given year, but exclude firms from industries which have a market share in excess of 10% in an EA. This exclusion makes it less likely that subject firms have economic ties (for example, via their supply chain) to local dominant industry firms and allows for better identification of peer effects. The distribution of the number of years for which there are zero, one, two, or three dominant industries for each EA is presented in Panel A of Table IA-1 in the Internet Appendix (IA).

Our identification strategy based on the stratification of industries in an EA on the basis of their salience provides some common sense insights with respect to dominant industries

in certain geographic areas of the country. For example, as shown in Table 2 for a selection of six EAs we see that, predictably, consumer nondurables are the dominant industry in the Detroit-Warren-Flint (MI) EA representing 67% of the local market value in the EA. Consumer durables are the dominant industry in the Atlanta-Sandy Springs-Gainesville (GA-AL) representing 32% of the local market value in the EA. In the Dallas-Fort Worth (TX) and Houston-Baytown-Huntsville (TX) EAs the oil, gas, and coal extraction industry is the most salient with respectively, 40% and 49% market share representation. Finally, in the San Jose-San Francisco-Oakland (CA) and Seattle-Tacoma (WA) economic areas business equipment is the most salient industry, representing 64% and 50% of market share. Table 2 also shows the average Tobin's Q and acquisitiveness for these six EAs. In Panel B of Table IA-1 we present these data in more detail for each of the largest 20 EAs (based on population), ranked from largest to smallest, showing the names of the dominant industries, the frequency during which it is the dominant industry during the sample period, the average number of firms within the industry, and its average market value share, Tobin's Q, and acquisitiveness. The dominant industry with the largest local market share is manufacturing in the Boston-Worcester-Manchester (MA-NH) economic area with 72%. The smallest local market share is for, respectively, the telecommunications industry and 'other' industry groupings in the Seattle-Tacoma-Olympia (WA) and Atlanta-Sandy Springs-Gainesville (GA-AL) at 20%. The local dominant industry with the highest and lowest average Tobin's Q is healthcare in the Miami-Fort Lauderdale-Miami Beach (FL) EA and utilities in the Phoenix-Mesa-Scottsdale (AZ) EA with Tobin's of 3.9 and 0.48, respectively. The local dominant industry with the highest and lowest average dollars spent on acquisitions (acquisitiveness) is manufacturing in the Phoenix-Mesa-Scottsdale (AZ) EA and consumer nondurables in the Minneapolis-St. Paul-St. Cloud (MN-WI), respectively.

Finally, in Table IA-2, we present summary statistics (mean, median, and standard deviation) for the number of firms, the market capitalization, Tobin's Q, and acquisitiveness for firms from non-dominant industries in each EA (*i.e.*, subject firms), listed for the 20 largest EAs and ranked from the largest to smallest EA in terms of their populations. The results show substantial variation across EAs in each of these dimensions. The New York-Newark-Bridgeport (NY-NJ-CT-PA) EA has the largest mean and median number of firms

of approximately 300. The Orlando-The Villages (FL) EA has the fewest mean and median number of firms with only eight and seven, respectively. Similarly, these EAs are also the largest and smallest in terms of the mean and median market capitalization. In contrast, the New York-Newark-Bridgeport (NY-NJ-CT-PA) EA has the fifth (sixth) lowest average (median) Tobin's Q and is right in the middle of the ranking in terms of acquisitiveness (tenth and thirteenth for the mean and median). The Orlando-The Villages (FL) EA has the fourth lowest average Tobin's Q, but the fourth highest in average acquisitiveness.

3. Main results

Our empirical analysis begins in Section 3.1 with providing estimates for our base regression specification, as shown in Eq.(1). These estimates provide us with correlations between acquisitiveness of firms in non-dominant industries with both the valuations and acquisitiveness of their local peers from the same industries and from dominant industries and offer our initial evidence of local valuation spillovers in M&A decisions. In Section 3.3, we present the results from additional analyses that help to rule out the concern that the correlation between acquisitiveness and local peer valuations is caused by location-specific shocks. Section 3.4, presents the results from estimating Eq.(6), where the valuation measures for the local peers from the same industries as the subject firms and those from local dominant industries are separated into idiosyncratic equity shocks and the non-idiosyncratic (residual) portion of Tobin's Q. This will allow us to draw causal inferences and understand to what extent local valuation spillovers in acquisitiveness reflect exogenous (*i.e.* contextual) or endogenous peer effects, or reflects non-causal correlated effects. Section 3.5 provides further evidence regarding the channel that underlies our findings. We present cross-sectional evidence based on the form of payment in acquisitions and whether local valuation spillovers extend to capital expenditures. Finally, in Section 3.6, we analyze whether acquisitiveness explained through local peer effects is associated with shareholder wealth creation or destruction.

3.1. Acquisitiveness and local acquisitiveness

Table 3 reports the estimation results for Eq.(1). We are particularly interested in whether variation in valuations or acquisitiveness of local dominant industry peers help explain the variation in acquisitiveness of non-dominant industry firms located in the same EA. The coefficients λ_1 and λ_3 capture the partial correlations between acquisitiveness and local dominant industry valuations and acquisitiveness. In model (1), we include valuations of the same industry and dominant industry local peer and control for the firm’s own valuation and for year and firm fixed effects. As expected, the coefficient on the firm’s own valuation is positive and significant at the one percent level, consistent with findings in the literature that higher valuations are strongly associated with acquisitiveness. The coefficient of interest (λ_1), which estimates the marginal impact of valuations of dominant industry local peers, is also positive and statistically significant at the one percent level. In contrast, the coefficient on the valuations of local peers from the same industry (λ_2) is statistically insignificant and close to zero in magnitude.

In model (2), we replace the valuations of the same industry and dominant industry peers with the average acquisitiveness in these industries. Neither λ_3 or λ_4 are statistically significant, with p -values ranging from 0.684 to 0.920. Combines, these estimates from models (1) and (2) are consistent with a contextual relation between subject and peer firms through valuations, but do not support endogenous peer effects, which would imply an actions-on-actions relation. This suggests that local acquisitiveness is not driven by the “investment mimicking channel” (Dessaint et al., 2019), where managers may strategically adjust their acquisition decisions with respect to their local peers’ acquisition decisions. This also rules out scenarios like managerial herding behavior, in the spirit of Scharfstein and Stein (1990), within an EA. The lack of significance for the average acquisitiveness measures also makes it unlikely that our results are explained by managerial hubris, optimistic sentiments (Roll, 1986), or ‘merger envy’ (Goel and Thakor, 2010), fueled by one-on-one social interactions with local peers or via local media, whereby they (irrationally) mimic the actions of their peers and pursue more acquisitions.

The estimates from model (3) yield similar conclusions when we include both the local peers’ valuations and acquisitiveness in the regression. We continue to find a statistically

significant association between acquisitiveness of local non-dominant industry peers and the valuation of their local dominant industry peers, even after controlling for their own valuation levels, the valuation of their local same industry peers, and the level of acquisitiveness of these local peers. The coefficients on the acquisitiveness of the local peers from the same or the dominant industries also remain insignificant. In model (4), we add firm-level controls for the natural log of the firm’s market capitalization, sales growth, cash holdings, leverage, and cash flows. While some of these control variables have statistically significant coefficients, λ_1 remains statistically significant at the five percent level. Finally, in model (5), we find consistent results when we replace the year fixed effects with a multiplicative fixed effect of years \times industry, which further helps to control for industry-specific shocks (Gormley and Matsa, 2014).

The association between acquisitiveness and valuations of the dominant industry local peers is also economically significant.²⁰ For example, based on the coefficient λ_1 in model (4), a one standard-deviation increase in the average valuation of local firms in the dominant industry, which represents a 40% increase in valuation relative to the mean, translates into an increase in acquisitiveness of local firms in non-dominant industries of 16.4%.

Finally, we note that the results on local valuation spillovers are robust to different weighing methods to define The variables $\overline{Q}_{i,-j,t-1}^\alpha$ and $\overline{ACQ}_{i,-j,t-1}^\alpha$ in cases where there are more than one dominant industry in an EA. The results we report in the main tables are based on taking a simple average across the different dominant industries. As a first alternative, we take the average within each dominant industry and then calculated an aggregate average by weighting each dominant industry by its total market capitalization in the EA (value-weighted). This will give more weight to the industry with the highest market share in the EA. As a second alternative, we take the average within each dominant industry and then calculated an aggregate average by weighting each dominant industry based on the number of firms in the each dominant industry in the EA (size-weighted). Finally, we use the minimum of the values in case there is more than one dominant industry. We show the results for three alternative benchmark definitions in Table IA-4, where we

²⁰When we replace the dependent variable in Eq.(1) with the natural log of $(1 + ACQ_t)$, λ_1 remains significant. This alleviates concerns that our results are driven by outliers. We report these results in Table IA-3.

replicate models (3) and (4) from Table 3. In models (1) and (2), we show the results for the value weighted averages. In models (3) and (4), we show the results for the size-weighted averages and in models (5) and (6) we show the results based on the minimum value to proxy for the valuation and acquisitiveness of a firm’s local dominant industry peers. Each of the alternative definitions produces similar results to those reported in Table 3. The results are also robust to alternative clustering of standard errors. IA-5 show the p -values for the coefficient estimates for $\overline{Q}_{-i,j,t-1}^\alpha$ and $\overline{Q}_{i,-j,t-1}^\alpha$ using eight alternative clustering choices. The p -values are quite consistent and similar to those reported in Table 3.

3.2. Local valuation spillovers: Intensive and extensive margin analysis

The results for local valuation spillovers in M&A activity are based on acquisitiveness defined as the ratio of the aggregate value of all control-seeking deals undertaken by public firms over a calendar year scaled by its book market value of assets at the beginning of the calendar year. In other words, acquisitiveness is based on aggregate spending on M&A. In this section, we ask whether this result holds at both the extensive and intensive margin.

To test for the extensive margin, we estimate Eq.(1), but replace the dependent variable with an indicator variable equal to a value of one if a firm announces at least one acquisition in a given year and a value of zero otherwise (Acquire (0/1)). While we loosely interpret the dependent variable as the likelihood of a firm doing an acquisition in a given year, we estimate these models using OLS regressions instead of logit or probit regression given the number of fixed effects and two-way clustering we apply. We repeat the specifications from Table 3 and report the results in Table 4 in model (1) through (4). In each model, the coefficient on the average valuation of the firm’s dominant industry peers is significant at the five-percent level or more. The results are also economically significant, but only marginally so given the lumpy nature of acquisitions. On average, during our sample period, firms announce acquisitions approximately every six years. Based on model (4), a one standard deviation increase in the in the average valuation of local firms in the dominant industry increases the mean likelihood of a firm announcing a takeover in a given year by 4.6%, which translates in a decrease of the acquisition interval by approximately three months on average. In other words, local valuation spillovers in acquisitiveness translate to some

degree into a higher number of acquisitions over time.

To test for the intensive margin, we estimate Eq.(1), but eliminate values of zero for acquisitiveness. This way, our dependent variable, ($ACQ > 0$), reflects whether firms that announce acquisitions, in fact, spend more in these transactions. In Models (5) through (8) in Table 4 the coefficient on the average valuation of the firm’s dominant industry peers is significant at the ten-percent level or more. Economically, the correlation between the amount spent on acquisitions, conditional on doing an acquisition and local dominant industry peer valuations is more significant. For example, a one standard deviation increase in average local dominant industry peer valuations corresponds to an increase in acquisitiveness of 23.4%. Together with the results reported in models (1) through (4) we provide evidence that local valuation spillovers in acquisitiveness marginally hold in the extensive margin and more strongly hold in the intensive margin.

3.3. Local valuation spillovers or common local shocks?

The results from Table 3 indicate a strong correlation between acquisitiveness and valuations of local dominant industry peers and are consistent with a contextual peer effects in M&A activity, but may also reflect correlated effects. Particularly, the correlation may reflect common local shocks, which could simultaneously affect the valuations of dominant industry peers and the acquisitiveness of non-dominant industry firms within an EA. To test this alternative explanation, we follow the approach from Dougal et al. (2015) and replace the average valuations and acquisitiveness of the firms’ same industry and dominant industry peers with the average valuations and acquisitiveness of their non-local peers (denoted as $-\alpha$) that are from the same industry or from the same dominant industry, respectively. We report the results for these reduced-form regressions in Table 5. Consistent with the results reported previously, the coefficients on the valuations of the non-local dominant industry peers, λ_1 , continue to be positive and significant at the five-percent level or better.

We also deploy an alternative approach using a 2SLS estimation. In Table 6 we report the results for the second-stage regression results. The valuations of the firms’ same industry and dominant industry peers are replaced with their instrumented values (denoted with IV) using the valuations of respective peers located outside the EA as instruments. Models (1)

through (4) follow the same order and include the same control variables as presented in Table 3. The first-stage regression estimates are reported in Table IA-6. To conserve space, we suppress the industry acquisitiveness average controls and the remaining firm-level control variables in the output. The relevance condition is satisfied with highly significant coefficients on the average Q of the same industry non-local peers (Panel A) and average Q of dominant industry non-local peers (Panel B), respectively. We believe the exclusion restriction is plausibly satisfied because the valuation of non-local peers is unlikely to be influenced by location-specific characteristics or location-specific shocks. Again, in each specification, λ_1 in Table 5 is positive and significant, even at the one-percent level. Since λ_1 in Table 5 and Table 6 is estimated in each of the four models based on regressors that are determined entirely outside of the economic area, we rule out that our results are driven by some unobserved common shock, which simultaneously impacts the valuations of local dominant industry firms and the acquisitiveness of subject firms in the non-dominant industry.

Next, we consider the possibility that our results are driven by spillovers that reach across geographic areas and, therefore, are not necessarily local spillovers. To test for the local component in the valuation spillovers, we run a simple placebo test. We replace each non-dominant industry firm (subject) in each EA with a firms matched within a range of plus or minus 20% and from the same industry, but from a different EA. We then repeat the specifications from Table 3. In this case, a significant coefficient on the average Tobin's Q for the dominant industry local peers (λ_1) suggests the spillover effect is not locally-driven. In contrast, if the spillover effect is locally-driven, we would expect an insignificant coefficient in this placebo specification as spillovers then do not extent across regions. We report the results in Table 7. In each of the four specifications, we find that λ_1 is consistently very close to zero with p -values ranging from 0.556 to 0.946.

3.4. Exogenous peer effects or correlated effects?

The results presented thus far are consistent with local valuation spillovers and exogenous peer effects, in the sense that the acquisitiveness relates to local dominant industry peer values, but not their acquisitiveness. However, in order to identify this relation as

causal, and therefore as an exogenous peer effect instead of a correlated effect, we have to test whether the relationship with acquisitiveness holds for exogenous non-fundamental variation in valuations of local dominant industry peers. In the augmented regression specification, shown in Eq.(6), these idiosyncratic equity shocks for the local dominant industry peers (local peers in the same industry as the subject firm) are denoted as $\bar{\Gamma}_{i,-j,t}^\alpha$ ($\bar{\Gamma}_{-i,j,t}^\alpha$). The variables $\bar{\Omega}_{i,-j,t}^\alpha$ and $\bar{\Omega}_{-i,j,t}^\alpha$ in Eq.(6) represent the non-idiosyncratic components of the local peers' valuation vis-à-vis firm i in the local dominant industries and the same (non-dominant) industries as the subject firms. In other words, the valuation measures for the local peers from the same industries as the subject firms and those from dominant industries are stratified into idiosyncratic equity shocks and the non-idiosyncratic (residual) portion of Tobin's Q. The estimates for λ_{10} and λ_{11} allow us to draw causal inferences and to understand to what extent our results reflect exogenous (*i.e.* contextual) peer effects if $\lambda_{10} > 0$, or are the result of correlated effects if $\lambda_{11} > 0$.

We present the coefficients estimated from Eq.(6) in Table 8. In models (1) through (4), we find that the idiosyncratic equity shocks of local dominant industry peers have a positive and, mostly significant coefficient (p -values for λ_{10} range from 0.033 with firm-level control variables included to 0.115 without these controls). When we estimate these specifications using the natural log acquisitiveness instead, the coefficients on λ_{10} are consistently significant, with p -values ranging from 0.009 to 0.069. To conserve space, we report the results using the natural log acquisitiveness in Table IA-7. The coefficient in model (4) of Table 8 implies that a one standard deviation increase in the idiosyncratic component in the local dominant industry peer valuations, increases acquisitiveness among subject firms by 7% relative to the mean. Taken together, these findings suggest the presence of exogenous peer effects and confirm that our results can be interpreted as causal. Note that λ_{11} is also significant, which suggests that correlated effects also contribute to the relation between acquisitiveness and valuations of local dominant industry peers. Interestingly, the significance of λ_{11} weakens when we replace acquisitiveness with the natural log of acquisitiveness. Also, consistent with the results in Table 3, λ_3 and λ_4 are consistently insignificant, which further confirms that acquisition decisions within an EA are not driven by the acquisition decisions of their local peers. λ_{20} and λ_{21} are both insignificant, which suggests that once

general industry trends are controlled for, the valuation of local industry peers does not have an incremental impact on the acquisition decision of subject firms.

3.5. Peer signals: Acquisitions versus capital expenditures

Our analysis shows that firms' adjust their acquisition decisions on the basis of idiosyncratic equity shocks of their local dominant industry peers is consistent with the faulty-informant channel (Dessaint et al., 2019; Morck et al., 1990). Firms may rationally adjust their investment decision based on the noise in their own stock prices where they could exploit market frictions (Baker et al., 2012). In contrast, the faulty informant channel implies inefficient investment decisions based on managers' inability to separate noise from information embedded in the valuations of their peers. For example, valuations of dominant industry peers may provide noisy signals about firms' own investment opportunities, market liquidity, financing constraints, or mispricing. To the extent that firms learn about their investment opportunities, market liquidity or financing constraints from peers outside their industry or product market, local valuation spillovers should be independent of the form of payment in an acquisition and also extend to capital expenditure decisions.²¹ In contrast, firms may use peer valuations as signals about their own misvaluation in an attempt to exploit overvaluation by converting equity into real assets (Baker et al., 2012). To the extent that managers are unable to separate the noise from information in these signals, we expect the valuation spillovers to occur specifically for acquisitions paid for with equity (Rhodes-Kropf et al., 2005; Shleifer and Vishny, 2003).

To test these predictions, we re-estimate Eq.(1) and Eq.(6) and report the results in Table 9. In models (1) through (4), the dependent variable reflects acquisitiveness based on deals paid for with stock. In both models, the partial correlations between stock-based acquisitiveness and, respectively, the valuations and idiosyncratic equity shocks of the local dominant industry peers (*i.e.*, λ_1 and λ_{10}) continue to be significant. The correlations of the same industry local peers (*i.e.*, λ_2 and λ_{20}) continue to be insignificant. In contrast, in models (5) through (8), where the dependent variable reflects acquisitiveness based on deals

²¹Valuations, for example, could positively correlate with market liquidity and financial flexibility (Harford, 2005) or investment opportunities (Bustamante and Fresard, 2020; Dessaint et al., 2019; Foucault and Fresard, 2014; Jovanovic and Rousseau, 2002).

paid for with cash, λ_1 , λ_{10} , λ_2 , and λ_{20} are insignificant and substantially smaller in magnitude. In models (9) through (12), we replace acquisitiveness (dependent variable) and the acquisitiveness industry averages (independent variables) with their capital expenditures counterparts (*CAPX*). We find no evidence of local valuation spillover effects for capital expenditures, with λ_1 , λ_{10} , λ_2 , and λ_{20} all close to zero and statistically insignificant. These findings are in contrast to the findings in [Dougal et al. \(2015\)](#), who deploying a different methodological setting, find that capital expenditure decisions within an EA are correlated with capital expenditures, cash flows, and valuations of local peer firms from different industries. Taken together, the evidence based on the form of payment and capital expenditures, suggests that our valuation spillover effect is consistent with noise in regarding mispricing, rather than investment opportunities, financing constraints, or overall market liquidity. We do find some tentative evidence of the mimicking channel, but only within subject firms' own industry, λ_4 is close to or weakly significant on the average capital expenditures of local industry peers. However, as explained in footnote 15, unlike our other coefficients, λ_4 is potentially biased because of the reflection problem.

3.6. Shareholder wealth consequences of local valuation spillovers

In the final section of the paper, we analyze if there are shareholder wealth implications associated with our findings, which corroborate the faulty informant channel. The faulty informant channel implies an inefficiency in corporate investment decisions. Specifically, with managers making acquisition decisions based on the the valuations of local dominant industry peers, we would expect a negative relation between the wealth effects of acquisitions and the noise in these signals, as represented by the idiosyncratic equity shocks of the dominant industry peers.

To measure the wealth effects of acquisitions, we apply standard event-study methodology and estimate the cumulative abnormal return, starting from one day prior to the announcement date to one day after for each deal announced by a non-dominant industry firm in an EA ($CAR_{(-1,+1)}$). As is customary, we control for firm size, payment method, and the target firm's organizational form (see, *e.g.*, [Moeller et al. \(2004\)](#)). We then estimate a cross-section regressions with CAR as the dependent variable on the idiosyncratic return

shocks of the firm itself, the average of the same industry local peers, and the average of the dominant industry local peers. We report the results in Table 10.

In model (1) through (3), the average valuation of a firm’s local dominant industry peers ($\overline{Q}_{i,-j,t-1}^\alpha$) and the average valuation of a firm’s local same industry peers ($\overline{Q}_{-i,j,t-1}^\alpha$) are insignificant. However, the faulty informant channel specifically attributes inefficiency in investment behavior when managers are unable to separate the noise from the information contained in peer valuations. Hence, in models (4) through (6), we split the average peer valuations in their idiosyncratic equity shock and non-idiosyncratic components. In each model, we find a negative significant relation between announcement returns and noise from local same industry and dominant industry peers. The coefficients on both the local dominant industry ($\overline{\Gamma}_{i,-j,t-1}^\alpha$) and the local same industry ($\overline{\Omega}_{i,-j,t-1}^\alpha$) idiosyncratic equity shocks are negative and significant. The relation between noise in local dominant industry peer valuations and announcement returns is economically significant as well. For example, based on the estimates from model (6), on average a one standard deviation in the equity shock to local dominant industry peers is associated with a 14.7% drop in announcement returns relative to the mean. Based on the average market capitalization of acquirers in our sample of \$3.9 billion (\$2019), this implies a average loss in value of \$8.3 million per acquirer or more than \$47 billion in total across 5,594 acquirers in our sample. We find no relation between announcement returns and the average industry acquisitiveness measures ($\overline{ACQ}_{i,-j,t-1}^\alpha$ and $\overline{ACQ}_{-i,j,t-1}^\alpha$) or the non-idiosyncratic component of peer valuations ($\overline{\Gamma}_{i,-j,t-1}^\alpha$ and $\overline{\Gamma}_{-i,j,t-1}^\alpha$). In models (3) and (6) we include the standard set of firm-level control variables as well as commonly used deal-related control variables. The coefficients on these control variables are generally in line with those reported in prior studies on the acquirer wealth effect. For example, the coefficients on acquirer size, public targets, and stock payment are negative and significant (Fuller et al., 2002; Moeller et al., 2004). Interestingly, deals between acquirer and target firms from the same EA are associated with higher announcement period returns. Overall, these results suggest that the market is skeptical about acquisition decisions that are in response to high valuations of local peers.

4. Conclusions

We document novel evidence on local valuations spillovers in M&A activity during our sample period of 1990-2019. Specifically, we find that acquisitiveness among firms in non-dominant industries in an economic area (subjects) is positively associated with the valuation of firms in the dominant industry headquartered in the same economic area (peers). The evidence is consistent with both an extensive and intensive margin interpretation. Location-specific shocks do not appear to explain our results. To understand if our results can be interpreted as peer effects, we split peer valuations into idiosyncratic equity shocks, which reflect the noise in peer valuations and the non-idiosyncratic component of peer valuations. Our empirical design does not rely on (actual or hypothetical) outflow-induced price pressure measures, but instead builds on the methodology proposed in [Leary and Roberts \(2014\)](#).

We find a strong and robust relation between acquisitiveness and idiosyncratic equity shocks of local dominant industry peers. To the extent that our measure of idiosyncratic equity shocks is orthogonal to fundamentals, we interpret our results as causal. Specifically, the results suggest that local valuation spillovers in acquisitiveness represent exogenous (*i.e.*, contextual) peer effects ([Manski, 1993](#)). Our evidence corroborates the faulty informant channel, whereby managers are unable to separate noise from information in the valuation signals from their local peers [Dessaint et al. \(2019\)](#). We find no evidence that firm-level acquisitiveness is affected by acquisitiveness of their local peers. Given the lack of outcome-on-outcome correlations, our findings do not support endogenous peer effects. However, we find that local valuation spillovers in acquisitiveness are also driven by correlated effects. While we leave this for future research, some of these correlated effects may derive from firms' endogenous headquarter location choices.

In cross-sectional analyses, we find that our results hold for stock-based acquisitions, but not for acquisitions paid for with cash. Similarly, we do not find evidence of local valuation spillovers in firm-level capital expenditure decisions. These findings suggest that the noise in valuation signals from local dominant industry peers reflect noise in misvaluations, rather than noise in fundamentals. Finally, consistent with the faulty informant channel, we find

that announcement returns is negatively correlated with idiosyncratic equity shocks of local dominant industry peers.

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Appendix

Variable name	Definition
Local dominant industry	FF12 industry or industries whose 5-year rolling average share of market capitalization in an EA exceeds 20%. The market capitalization share of a FF12 industry in an EA in any given calendar year is the aggregate market value of equity of all publicly-listed firms from the FF12 industry headquartered in the EA divided by the aggregate market value of equity of all publicly-listed firms headquartered in the EA.
Local non-dominant industry	FF12 industry or industries whose 5-year rolling average share of market capitalization in an EA is below 10%.
Dominant industry local peers	Firms that are from the dominant FF12 industry or industries in an EA and headquartered in the same EA as the subject firm. In identifying dominant industry peers, we exclude firms that share the same FF48 industry as the subject firm.
Same industry local peers	Firms that are from the same FF12 industry and headquartered in the same EA as the subject firm.
Dominant industry non-local peers	Firms that are from the dominant FF12 industry (or industries) in an EA and headquartered outside EA where the subject firm is headquartered. In identifying dominant industry peers, we exclude firms that share the same FF48 industry as the subject firm.
Same industry non-local peers	Firms that are from the same FF12 industry as the subject firm and headquartered outside the EA where the subject firm is headquartered.

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Variable name	Definition
$ACQ_{i,t}$	Acquisitiveness of firm i in calendar year t , measured as the total value of all completed control seeking acquisitions made by a firm that were announced in calendar year t (from the Refinitiv SDC database) scaled by its total book value of assets (AT) at the beginning of the calendar year. For COMPUSTAT items, calendar year is set equal to the year of the fiscal year end date minus 1 (year of the fiscal year end date) for firms with fiscal year ends before (after) May.
$\text{Ln}(1 + ACQ_{i,t})$	Log of 1 plus the acquisitiveness of firm 1 in calendar year t
Stock (Cash) acquisitiveness (t)	Total value of all control seeking acquisitions made by a firm announced in calendar year t (from Refinitiv / SDC database) in which majority of deal is paid for with stock (cash) scaled by the book value of assets (AT) at the beginning of the calendar year. For COMPUSTAT items, calendar year is set equal to the year of the fiscal year end date minus 1 (year of the fiscal year end date) for firms with fiscal year ends before (after) May.
$\text{Ln}(1 + \text{Stock acquisitiveness}) (t)$	Log of 1 plus the stock acquisitiveness in calendar year (t)
$\text{Ln}(1 + \text{cash acquisitiveness}) (t)$	Log of 1 plus the cash acquisitiveness in calendar year (t)
$CAPX_{i,t}$	Capital expenditure ($CAPX$) made by firm i over a calendar year t scaled by the total book value of assets (AT) at the beginning of the calendar year. For COMPUSTAT items, calendar year is set equal to the year of the fiscal year end date minus 1 (year of the fiscal year end date) for firms with fiscal year ends before (after) May.

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Variable name	Definition
$Q_{i,t-1}$	Firm-level Tobin's Q measured at the end of calendar year $t-1$. Following Dougal et al. (2015) , this variable is constructed as $(AT - LT - \text{Preferred Stock} + TXDITC + \text{Market value of equity})/AT$, where Preferred Stock equals $PSTKL$ or $PSTKRV$ if $PSTKL$ is missing, or $PSTK$ if both $PSTKL$ and $PSTKRV$ are missing. Market value of equity is computed using data from the CRSP Daily Files as the average over December of calendar year $t-1$ of price (PRC) \times shares outstanding ($SHROUT$) scaled by 1,000. All COMPUSTAT items (AT , LT , $PSTKL$, $PSTKRV$, $PSTK$) are from calendar year $t-1$. For COMPUSTAT items, calendar year is set equal to the year of the fiscal year end date minus 1 (year of the fiscal year end date) for firms with fiscal year ends before (after) May.
$\overline{Q}_{i,-j,t-1}^{\alpha}$ ($\overline{Q}_{-i,j,t-1}^{\alpha}$)	The average Tobin's Q at the end of calendar year $t-1$ of all dominant (same) industry local peers of a subject firm.
$\overline{Q}_{i,-j,t-1}^{-\alpha}$ ($\overline{Q}_{-i,j,t-1}^{-\alpha}$)	The average Tobin's Q at the end of calendar year $t-1$ of all dominant (same) industry non-local peers of a subject firm.
$\overline{ACQ}_{i,-j,t-1}^{\alpha}$ ($\overline{ACQ}_{-i,j,t-1}^{\alpha}$)	The average acquisitiveness over calendar year $t-1$ all dominant (same) industry local peers of a subject firm.
$\overline{ACQ}_{i,-j,t-1}^{-\alpha}$ ($\overline{ACQ}_{-i,j,t-1}^{-\alpha}$)	The average acquisitiveness over calendar year $t-1$ all dominant (same) industry non-local peers of a subject firm.

Continued on next page

Variable name	Definition
$\Gamma_{i,j,t}^\alpha$	Equity shock, which represent the idiosyncratic component of equity returns realized by a firm over a calendar year. For each firm i from industry j located in economic area α , the monthly idiosyncratic return is calculated as the difference between the realized return in the month and the expected return $\widehat{R}_{i,j,t}^\alpha$ calculated in Eq.(2) and Eq.(3), where R_t^{Mkt} and R_t^f are the return on the CRSP value-weighted market portfolio and the risk-free rate. $\widehat{\beta}_{i,j,t}^{Mkt}$, $\widehat{\beta}_{-i,j,t}^\alpha$, $\widehat{\beta}_{i,j,t}^{-\alpha}$, and $\widehat{\beta}_{i,-j,t}^\alpha$ are the estimated factor loadings on the market portfolio, the portfolio of firms in the same EA and the same FF12 industry as firm i but excluding firm i , the portfolio of firms in the same FF12 industry located outside of the EA of firm i , and the portfolio of firms in the same EA as firm i but in a different FF12 industry. The loadings on these portfolios are estimated using rolling five years of monthly returns from $t-6$ to $t-1$. The monthly idiosyncratic returns are compounded over the calendar year to calculate the aggregate equity shock received by the firm in the calendar year.
$\overline{\Gamma}_{i,-j,t-1}^\alpha$ ($\overline{\Gamma}_{-i,j,t-1}^\alpha$)	The average equity shock received by all dominant (same) industry local peers of a subject firm in calendar year $t-1$.
$\overline{\Omega}_{i,-j,t-1}^\alpha$ ($\overline{\Omega}_{-i,j,t-1}^\alpha$)	The part of average Tobin's Q of a firm's dominant (same) industry local peers at the end of calendar year $t-1$ which is orthogonal to the equity shock received by them over calendar year $t-1$. For each firm i it is calculated as the residual from Eq.(5) (Eq.(4)).
$Ln(MVE)_{t-1}$	Log of market value of equity at the end of calendar year $t-1$ computed using data from the CRSP Daily Files as the average over December of calendar year $t-1$ of stock price (PRC) \times shares outstanding ($SHROUT$) scaled by 1,000.

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Variable name	Definition
$Salesgrowth_{t-1}$	Log of the ratio of sales $t-1$ and sales $t-2$ ($SALE$).
$Cash_{t-1}$	Cash (CHE) divided by the book value of assets (AT) at the end of calendar year $t-1$.
$Leverage_{t-1}$	The sum of long-term debt ($DLTT$) and debt in current liabilities (DLC) scaled by the book value of assets (AT) at the end of calendar year $t-1$. For COMPUSTAT items, calendar year is set equal to the year of the fiscal year end date minus 1 (fiscal year end date) for firms with fiscal year ends before (after) May.
$CashFlow_{t-1}$	The sum of income before extraordinary items (IB) and depreciation (DP) scaled by book value of assets (AT) at the end of calendar year $t-1$. For COMPUSTAT items, calendar year is set equal to the year of the fiscal year end date minus 1 (fiscal year end date) for firms with fiscal year ends before (after) May.
Relative size	Deal value (from the Refinitiv SDC database) over the book value of assets of the acquirer at the beginning of the calendar year.
Majority stock deal	Indicator variable equal to 1 if the majority of deal consideration offered ($> 50\%$) is in the form of stocks in the acquiring firm.
Local deal	Indicator variable equal to one if acquirer and target are from the same EA and zero otherwise
Publicly listed target	Indicator variable equal to 1 if the target in a deal is publicly listed.
Same industry deal	Indicator variable equal to 1 if the target in a deal is from the same FF12 industry as the acquirer.

Tables

Table 1: Summary statistics per economic area

The table lists the largest 20 economic areas (EAs) as defined by the Bureau of Economic Analysis (BEA) by population. The EAs have been sorted in decreasing order of the average acquisitiveness (over 1990-2019) of firms headquartered in them. All variables are defined in the appendix

Economic Area (EA)	Average (1990-2019)			
	Number of firms	Aggregate market value of equity (\$ 2019 billion)	Tobin's Q	Acquisitiveness
Atlanta-Sandy Springs-Gainesville, GA-AL	103	494.03	1.747	0.068
San Jose-San Francisco-Oakland, CA	291	1739.55	2.761	0.060
Orlando-The Villages, FL	19	14.68	1.655	0.059
Denver-Aurora-Boulder, CO	102	145.86	1.793	0.058
Miami-Fort Lauderdale-Miami Beach, FL	68	44.50	1.913	0.055
Houston-Baytown-Huntsville, TX	171	519.89	1.610	0.052
Phoenix-Mesa-Scottsdale, AZ	55	90.80	1.772	0.050
Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	154	421.04	1.900	0.045
Dallas-Fort Worth, TX	192	855.93	1.869	0.041
Los Angeles-Long Beach-Riverside, CA	262	417.82	2.005	0.038
Seattle-Tacoma-Olympia, WA	55	543.42	2.646	0.038
New York-Newark-Bridgeport, NY-NJ-CT-PA	592	3001.48	1.902	0.035
Philadelphia-Camden-Vineland, PA-NJ-DE-MD	143	349.87	1.869	0.032
Chicago-Naperville-Michigan City, IL-IN-WI	183	891.25	1.637	0.030
Minneapolis-St. Paul-St. Cloud, MN-WI	108	343.63	2.349	0.029
St. Louis-St. Charles-Farmington, MO-IL	44	158.68	1.500	0.027
Cleveland-Akron-Elyria, OH	59	125.23	1.274	0.026
Boston-Worcester-Manchester, MA-NH	58	408.50	2.070	0.026
Detroit-Warren-Flint, MI	59	160.67	1.642	0.023
Indianapolis-Anderson-Columbus, IN	22	126.77	1.313	0.019

Table 2: Summary statistics on dominant industries for six selected economic areas

The table shows the dominant industries for six selected economic areas (EA), the market value share of these industries within the EA, the average Tobin's Q, and acquisitiveness. All variables are defined in the appendix. A comprehensive overview of dominant industries for all the 20 economic areas in our sample is reported in Panel B of Table [IA-1](#).

Economic Area (EA)	Dominant industry (FF12)	Market value share	Tobin's Q	Acquisitiveness
Atlanta-Sandy Springs-Gainesville, GA-AL	Consumer nondurables	32%	1.858	0.017
Dallas-Fort Worth, TX	Oil, gas & coal extraction	40%	1.575	0.064
Detroit-Warren-Flint, MI	Consumer durables	67%	1.009	0.020
Houston-Baytown-Huntsville, TX	Oil, gas & coal extraction	49%	1.435	0.063
San Jose-San Francisco-Oakland, CA	Business equipment	64%	2.910	0.079
Seattle-Tacoma-Olympia, WA	Business equipment	56%	3.056	0.072

Table 3: Local valuation spillovers: Regression estimates

This table reports coefficient estimates for Eq.(1). The dependent variable, $(ACQ_{i,t})$, measures the acquisitiveness of subject firms (*i.e.*, firms in non-dominant industries). $\overline{Q}_{i,-j,t-1}^{\alpha}$ ($\overline{Q}_{-i,j,t-1}^{\alpha}$) and $\overline{ACQ}_{i,-j,t-1}^{\alpha}$ ($\overline{ACQ}_{-i,j,t-1}^{\alpha}$) are the average Tobin's Q and the average acquisitiveness of the subject firm's local dominant (same) industry peers respectively. All variables are defined in the appendix. Standard errors are clustered by FF48 industry and economic area. *p*-values are presented in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels, respectively.

Dependent variable	(1)	(2)	(3)	(4)
	Acquisitiveness ($ACQ_{i,t}$)			
$Q_{i,t-1}$	0.022*** (0.002)	0.022*** (0.002)	0.026*** (0.001)	0.026*** (0.001)
$\overline{Q}_{i,-j,t-1}^{\alpha}$	0.008*** (0.002)	0.007*** (0.006)	0.010** (0.012)	0.009** (0.026)
$\overline{Q}_{-i,j,t-1}^{\alpha}$	0.000 (0.987)	0.000 (0.950)	0.000 (0.908)	-0.000 (0.951)
$\overline{ACQ}_{i,-j,t-1}^{\alpha}$		0.003 (0.920)	-0.013 (0.684)	-0.011 (0.730)
$\overline{ACQ}_{-i,j,t-1}^{\alpha}$		0.007 (0.609)	0.006 (0.721)	0.009 (0.564)
$Ln(MVE)_{t-1}$			-0.030*** (0.000)	-0.030*** (0.000)
$SalesGrowth_{t-1}$			-0.012 (0.176)	-0.013 (0.167)
$Cash_{t-1}$			0.049** (0.034)	0.049** (0.032)
$Leverage_{t-1}$			-0.082*** (0.000)	-0.084*** (0.000)
$CashFlow_{t-1}$			0.044* (0.085)	0.043* (0.095)
Constant	-0.014 (0.264)	-0.014 (0.286)	0.566*** (0.000)	0.568*** (0.000)
Observations	37,171	36,881	34,456	34,456
Adjusted R-squared	0.107	0.105	0.094	0.094
Year F.E.	Yes	Yes	Yes	No
FF12 \times Year F.E.	No	No	No	Yes
Firm F.E.	Yes	Yes	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA

Table 4: Extensive and intensive margins

This table reports coefficient estimates for Eq.(1). The dependent variable in (1)-(4) is an indicator variable equal to one if a subject firm announces at least one acquisition in year t , and zero otherwise. In (5)-(8) it is $(ACQ_{i,t} > 0)$, dropping observations if $ACQ_{i,t} = 0$. $\overline{Q}_{i,-j,t-1}^{\alpha}$ ($\overline{Q}_{-i,j,t-1}^{\alpha}$) and $\overline{ACQ}_{i,-j,t-1}^{\alpha}$ ($\overline{ACQ}_{-i,j,t-1}^{\alpha}$) are the average Tobin's Q and the average acquisitiveness of the subject firm's local dominant (same) industry peers respectively. All variables are defined in the appendix. Standard errors are clustered by FF48 industry and economic area. p -values are presented in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels, respectively.

Dependent variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Extensive margin				Intensive margin			
	Acquire (0/1)				Acquisitiveness ($ACQ_{i,t} > 0$)			
$Q_{i,t-1}$	0.016*** (0.004)	0.015*** (0.004)	0.004 (0.246)	0.005 (0.224)	0.138*** (0.000)	0.138*** (0.000)	0.151*** (0.000)	0.146*** (0.000)
$\overline{Q}_{i,-j,t-1}^{\alpha}$	0.009*** (0.001)	0.008*** (0.001)	0.008*** (0.005)	0.009** (0.013)	0.061** (0.029)	0.060* (0.059)	0.086** (0.039)	0.060** (0.013)
$\overline{Q}_{-i,j,t-1}^{\alpha}$	-0.001 (0.393)	-0.001 (0.694)	-0.001 (0.719)	-0.002 (0.519)	-0.006 (0.562)	-0.009 (0.462)	-0.005 (0.724)	-0.006 (0.744)
$\overline{ACQ}_{i,-j,t-1}^{\alpha}$		0.029 (0.362)	0.033 (0.389)	0.019 (0.643)		-0.052 (0.838)	-0.125 (0.477)	-0.129 (0.536)
$\overline{ACQ}_{-i,j,t-1}^{\alpha}$		-0.007 (0.571)	-0.011 (0.464)	-0.012 (0.367)		0.060 (0.591)	0.099 (0.433)	0.158 (0.259)
$Ln(MVE)_{t-1}$			0.022*** (0.000)	0.020*** (0.000)			-0.198*** (0.000)	-0.188*** (0.000)
$SalesGrowth_{t-1}$			0.001 (0.760)	0.001 (0.879)			-0.036 (0.415)	-0.034 (0.511)
$Cash_{t-1}$			0.076*** (0.002)	0.076*** (0.001)			-0.020 (0.809)	-0.046 (0.608)
$Leverage_{t-1}$			-0.130*** (0.000)	-0.130*** (0.000)			-0.352*** (0.002)	-0.375*** (0.001)
$CashFlow_{t-1}$			0.099*** (0.000)	0.100*** (0.000)			0.124 (0.437)	0.115 (0.439)
Constant	0.112*** (0.000)	0.110*** (0.000)	-0.273*** (0.002)	-0.248*** (0.002)	-0.133* (0.053)	-0.125* (0.092)	3.899*** (0.000)	3.773*** (0.000)
Observations	37,284	36,994	34,559	34,559	4,913	4,872	4,515	4,501
Adjusted R-squared	0.157	0.158	0.165	0.168	0.222	0.221	0.226	0.218
Year F.E.	Yes	Yes	Yes	No	Yes	Yes	Yes	No
FF12 \times Year F.E.	No	No	No	Yes	No	No	No	Yes
Firm F.E.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA

Table 5: Replacing local with non-local valuations and acquisitiveness

This table reports coefficient estimates for Eq.(1). The dependent variable, $(ACQ_{i,t})$, measures the acquisitiveness of subject firms (*i.e.*, firms in non-dominant industries). $\overline{Q}_{i,-j,t-1}^{-\alpha}$ ($\overline{Q}_{-i,j,t-1}^{-\alpha}$) and $\overline{ACQ}_{i,-j,t-1}^{-\alpha}$ ($\overline{ACQ}_{-i,j,t-1}^{-\alpha}$) are the average Tobin's Q and the average acquisitiveness of the subject firm's non-local dominant (same) industry peers respectively. All variables are defined in the appendix. Standard errors are clustered by FF48 industry and economic area. *p*-values are presented in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels, respectively.

Dependent variable	(1)	(2)	(3)	(4)
		Acquisitiveness ($ACQ_{i,t}$)		
$Q_{i,t-1}$	0.022*** (0.001)	0.022*** (0.001)	0.025*** (0.001)	0.025*** (0.001)
$\overline{Q}_{i,-j,t-1}^{-\alpha}$	0.009** (0.033)	0.007** (0.026)	0.011*** (0.001)	0.011*** (0.003)
$\overline{Q}_{-i,j,t-1}^{-\alpha}$	-0.005 (0.347)	-0.005 (0.385)	-0.003 (0.589)	-0.004 (0.445)
$\overline{ACQ}_{i,-j,t-1}^{-\alpha}$		0.062 (0.409)	0.025 (0.727)	0.009 (0.894)
$\overline{ACQ}_{-i,j,t-1}^{-\alpha}$		0.014 (0.735)	0.024 (0.544)	0.066* (0.098)
$Ln(MVE)_{t-1}$			-0.028*** (0.000)	-0.028*** (0.000)
$SalesGrowth_{t-1}$			-0.013 (0.127)	-0.014 (0.123)
$Cash_{t-1}$			0.046** (0.041)	0.046** (0.041)
$Leverage_{t-1}$			-0.080*** (0.000)	-0.083*** (0.000)
$CashFlow_{t-1}$			0.038* (0.099)	0.036 (0.120)
Constant	-0.007 (0.656)	-0.008 (0.656)	0.533*** (0.000)	0.534*** (0.000)
Observations	41,430	41,383	38,800	38,800
Adjusted R-squared	0.104	0.104	0.092	0.092
Year F.E.	Yes	Yes	Yes	No
FF12 × Year F.E.	No	No	No	Yes
Firm F.E.	Yes	Yes	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA

Table 6: 2SLS second-stage regression estimates

This table reports coefficient estimates for second-stage models, specified as in Eq.(1) using instrumented values (denoted with IV) for local same and dominant industry peer valuations. The first-stage models (reported in Table IA-6 in the internet appendix), regress the valuations of the firms' same industry and dominant industry peers on the valuations of respective peers located outside the EA and the firm-level controls (suppressed). The dependent variable, $(ACQ_{i,t})$, measures the acquisitiveness of subject firms (*i.e.*, firms in non-dominant industries). $\overline{Q}_{i,-j,t-1}^{\alpha}$ ($\overline{Q}_{-i,j,t-1}^{\alpha}$) and $\overline{ACQ}_{i,-j,t-1}^{\alpha}$ ($\overline{ACQ}_{-i,j,t-1}^{\alpha}$) are the average Tobin's Q and the average acquisitiveness of the subject firm's local dominant (same) industry peers respectively. All variables are defined in the appendix. Standard errors are clustered by FF48 industry and economic area. p -values are presented in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels, respectively.

Dependent variables	(1)	(2)	(3)	(4)
	Acquisitiveness ($ACQ_{i,t}$)			
$Q_{i,t-1}$	0.023*** (0.002)	0.023*** (0.001)	0.026*** (0.001)	0.026*** (0.001)
$\overline{Q}_{i,-j,t-1}^{\alpha IV}$	0.009** (0.029)	0.008** (0.011)	0.012*** (0.000)	0.014** (0.024)
$\overline{Q}_{-i,j,t-1}^{\alpha IV}$	-0.009 (0.304)	-0.010 (0.299)	-0.009 (0.425)	-0.015 (0.190)
Observations	37,168	37,166	34,722	34,722
Adjusted R-squared	0.009	0.008	0.009	-0.139
Kleibergen-Paap rk Wald F -statistic	41.192	40.966	37.074	23.823
Year F.E.	Yes	Yes	Yes	No
FF12 \times Year F.E.	No	No	No	Yes
Firm F.E.	Yes	Yes	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA	FF48 & EA	FF48

Table 7: Matched firm non-local acquisitiveness

This table reports coefficient estimates for Eq.(1). The dependent variable, $(ACQ_{i,t})$, is replaced with the acquisitiveness of a matched firm from outside the subject firm's economic area. Matched firms are from the same FF48 industry as the subject firms and have similar market value of equity and Tobin's Q at the end of calendar year $t-1$ ($\pm 25\%$) as the subject firms. $\overline{Q}_{i,-j,t-1}$ ($\overline{Q}_{-i,j,t-1}$) and $\overline{ACQ}_{i,-j,t-1}$ ($\overline{ACQ}_{-i,j,t-1}$) are the average Tobin's Q and the average acquisitiveness of the subject firm's local dominant (same) industry peers respectively. and All variables are defined in the appendix. Standard errors are clustered by FF48 industry and economic area. p -values are presented in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels, respectively.

Dependent variable	(1)	(2)	(3)	(4)
	Matched firm acquisitiveness ($ACQ_{i,t}$)			
Matched firm $Q_{i,t-1}$	0.008** (0.043)	0.008** (0.040)	0.009** (0.013)	0.008** (0.033)
$\overline{Q}_{i,-j,t-1}$	-0.000 (0.946)	-0.001 (0.707)	-0.001 (0.874)	-0.003 (0.556)
$\overline{Q}_{-i,j,t-1}$	0.002* (0.081)	0.003* (0.073)	0.001 (0.656)	0.002 (0.519)
$\overline{ACQ}_{i,-j,t-1}$		0.034** (0.038)	0.037 (0.222)	0.036 (0.174)
$\overline{ACQ}_{-i,j,t-1}$		0.021 (0.326)	0.023 (0.348)	0.023 (0.371)
Matched firm $Ln(MVE)_{t-1}$			0.000 (0.914)	0.000 (0.983)
Matched firm $SalesGrowth_{t-1}$			0.003 (0.562)	0.004 (0.569)
Matched firm $Cash_{t-1}$			0.014 (0.685)	0.017 (0.578)
Matched firm $Leverage_{t-1}$			-0.007 (0.723)	-0.004 (0.796)
Matched firm $CashFlow_{t-1}$			-0.027* (0.083)	-0.026 (0.111)
Constant	0.020** (0.012)	0.019** (0.025)	0.007 (0.911)	0.018 (0.824)
Observations	17,760	17,645	16,272	16,260
Adjusted R-squared	0.019	0.020	0.018	0.017
Year F.E.	Yes	Yes	Yes	No
FF12 \times Year F.E.	No	No	No	Yes
Firm F.E.	Yes	Yes	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA

Table 8: Peer effect: Regression estimates

This table reports coefficient estimates for Eq.(6). The dependent variable, $(ACQ_{i,t})$, measures the acquisitiveness of subject firms (*i.e.*, firms in non-dominant industries). $\overline{\Omega}_{i,-j,t}^\alpha$ ($\overline{\Omega}_{-i,j,t}^\alpha$) and $\overline{\Gamma}_{i,-j,t}^\alpha$ ($\overline{\Gamma}_{-i,j,t}^\alpha$) are the average non-idiosyncratic component of Tobin's Q of and the average equity shock received by the subject firm's local dominant (same) industry peers respectively. $\overline{ACQ}_{i,-j,t-1}^\alpha$ ($\overline{ACQ}_{-i,j,t-1}^\alpha$) is the average acquisitiveness of the subject firm's local dominant (same) industry peers. All variables are defined in the appendix. Standard errors are clustered by FF48 industry and economic area. *p*-values are presented in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels, respectively.

Dependent variable	(1)	(2)	(3)	(4)
	Acquisitiveness ($ACQ_{i,t}$)			
$Q_{i,t-1}$	0.023*** (0.002)	0.023*** (0.002)	0.027*** (0.002)	0.027*** (0.002)
$\overline{\Gamma}_{i,-j,t}^\alpha$	0.011* (0.091)	0.012 (0.115)	0.017** (0.039)	0.020** (0.033)
$\overline{\Omega}_{i,-j,t}^\alpha$	0.008* (0.058)	0.007* (0.073)	0.011* (0.065)	0.011** (0.035)
$\overline{\Gamma}_{-i,j,t}^\alpha$	-0.006 (0.349)	-0.006 (0.403)	-0.005 (0.440)	-0.006 (0.409)
$\overline{\Omega}_{-i,j,t}^\alpha$	-0.000 (0.893)	-0.001 (0.826)	0.000 (0.900)	0.000 (0.939)
$\overline{ACQ}_{i,-j,t-1}^\alpha$		-0.001 (0.971)	-0.019 (0.557)	-0.018 (0.579)
$\overline{ACQ}_{-i,j,t-1}^\alpha$		0.011 (0.545)	0.007 (0.733)	0.009 (0.683)
$Ln(MVE)_{t-1}$			-0.031*** (0.000)	-0.031*** (0.000)
$SalesGrowth_{t-1}$			-0.011 (0.182)	-0.012 (0.162)
$Cash_{t-1}$			0.040* (0.055)	0.040** (0.047)
$Leverage_{t-1}$			-0.087*** (0.000)	-0.089*** (0.000)
$CashFlow_{t-1}$			0.045* (0.052)	0.045* (0.054)
Constant	-0.001 (0.919)	-0.002 (0.896)	0.607*** (0.000)	0.609*** (0.000)
Observations	36,243	36,221	33,822	33,822
Adjusted R-squared	0.106	0.104	0.093	0.093
Year F.E.	Yes	Yes	Yes	No
FF12 × Year F.E.	No	No	No	Yes
Firm F.E.	Yes	Yes	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA

Table 10: Event-study analysis

The tables presents coefficient estimates for regression models with the three-day cumulative abnormal return, $CAR_{(-1,+1)}$ as the dependent variable. Stock variables are measured at $t-1$ of the beginning of the calendar year and flow variables are measured over the calendar year $t-1$. $\overline{Q}_{i,-j,t-1}$ ($\overline{Q}_{-i,j,t-1}^\alpha$) and $\overline{ACQ}_{i,-j,t-1}$ ($\overline{ACQ}_{-i,j,t-1}^\alpha$) are the average Tobin's Q and the average acquisitiveness of the subject firm's local dominant (same) industry peers respectively. $\overline{\Gamma}_{i,-j,t}^\alpha$ ($\overline{\Gamma}_{-i,j,t}^\alpha$) and $\overline{\Omega}_{i,-j,t}^\alpha$ ($\overline{\Omega}_{-i,j,t}^\alpha$) are the average equity shock received by and the average non-idiosyncratic component of Tobin's Q of the subject firm's local dominant (same) industry peers respectively. $\overline{ACQ}_{i,-j,t-1}^\alpha$ ($\overline{ACQ}_{-i,j,t-1}^\alpha$) is the average acquisitiveness of the subject firm's local dominant (same) industry peers. All variables are defined in the appendix. Standard errors are clustered by $FF12 \times Year$ and $EA \times Year$. p -values are presented in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels, respectively.

Dependent variable	(1)	(2)	(3)	(4)	(5)	(6)
	$CAR_{(-1,+1)}$					
$Q_{i,t-1}$	-0.000 (0.790)	-0.000 (0.787)	0.002 (0.295)	-0.000 (0.813)	-0.000 (0.783)	0.002 (0.245)
$\overline{Q}_{i,-j,t-1}^\alpha$	-0.003 (0.132)	-0.003 (0.154)	-0.002 (0.325)			
$\overline{Q}_{-i,j,t-1}^\alpha$	0.000 (0.801)	0.000 (0.988)	-0.002 (0.187)			
$\overline{\Gamma}_{i,-j,t}^\alpha$				-0.014** (0.018)	-0.014** (0.021)	-0.013** (0.047)
$\overline{\Omega}_{i,-j,t}^\alpha$				-0.003 (0.191)	-0.003 (0.192)	-0.002 (0.353)
$\overline{\Gamma}_{-i,j,t}^\alpha$				-0.006* (0.082)	-0.006* (0.069)	-0.007** (0.030)
$\overline{\Omega}_{-i,j,t}^\alpha$				0.000 (0.856)	0.000 (0.951)	-0.002 (0.339)
$\overline{ACQ}_{i,-j,t-1}^\alpha$		0.005 (0.707)	-0.003 (0.832)		0.008 (0.556)	0.001 (0.957)
$\overline{ACQ}_{-i,j,t-1}^\alpha$		0.005 (0.355)	0.004 (0.428)		0.006 (0.292)	0.005 (0.372)
Relative size			0.008 (0.199)			0.009 (0.179)
Majority stock deal			-0.009*** (0.001)			-0.010*** (0.001)
Public target			-0.012*** (0.000)			-0.011*** (0.000)
Same industry deal			-0.000 (0.994)			0.000 (0.952)
Local deal			0.005* (0.051)			0.005* (0.066)

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Table 10 – *Continued*

Dependent variable	(1)	(2)	(3)	(4)	(5)	(6)
	$CAR_{(-1,+1)}$					
$Ln(MVE)_{t-1}$			-0.007*** (0.000)			-0.008*** (0.000)
$SalesGrowth_{t-1}$			-0.000 (0.879)			-0.000 (0.939)
$Cash_{t-1}$			0.007 (0.164)			0.008* (0.071)
$Leverage_{t-1}$			-0.007 (0.474)			-0.008 (0.442)
$CashFlow_{t-1}$			-0.012 (0.130)			-0.013 (0.112)
Constant	0.020*** (0.000)	0.020*** (0.000)	0.171*** (0.000)	0.014*** (0.000)	0.013*** (0.000)	0.172*** (0.000)
Observations	7,505	7,449	6,584	7,258	7,255	6,417
Adjusted R-squared	0.103	0.103	0.102	0.096	0.096	0.099
Firm F.E.	Yes	Yes	Yes	Yes	Yes	Yes
FF12 \times Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering:						
FF12 \times Year	Yes	Yes	Yes	Yes	Yes	Yes
EA \times Year	Yes	Yes	Yes	Yes	Yes	Yes

Internet Appendix

Table IA-1: Summary statistics for dominant industries in each economic area

Panel A: Distribution of number of dominant industries across economic areas

Economic Area (EA)	Number of years with n dominant industries			
	$n=0$	$n=1$	$n=2$	$n=3$
New York-Newark-Bridgeport, NY-NJ-CT-PA	0	7	23	0
Los Angeles-Long Beach-Riverside, CA	2	5	11	12
Chicago-Naperville-Michigan City, IL-IN-WI	10	18	2	0
San Jose-San Francisco-Oakland, CA	0	25	5	0
Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	0	14	11	5
Boston-Worcester-Manchester, MA-NH	0	21	9	0
Dallas-Fort Worth, TX	0	12	14	4
Detroit-Warren-Flint, MI	0	30	0	0
Philadelphia-Camden-Vineland, PA-NJ-DE-MD	0	13	16	1
Atlanta-Sandy Springs-Gainesville, GA-AL	0	11	13	6
Houston-Baytown-Huntsville, TX	0	28	2	0
Miami-Fort Lauderdale-Miami Beach, FL	0	5	16	9
Minneapolis-St. Paul-St. Cloud, MN-WI	0	3	20	7
Cleveland-Akron-Elyria, OH	0	13	13	4
Seattle-Tacoma-Olympia, WA	0	19	11	0
Phoenix-Mesa-Scottsdale, AZ	0	18	10	2
Orlando-The Villages, FL	0	9	20	1
Denver-Aurora-Boulder, CO	5	17	8	0
St. Louis-St. Charles-Farmington, MO-IL	0	8	21	1
Indianapolis-Anderson-Columbus, IN	0	16	14	0
Total number of EA - Years with n dominant industries	17	292	239	52

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Table IA-1: - Continued

Panel B: Dominant industry data by economic area

Economic Area (EA)	Dominant industry	Frequency	Number of firms	Average		
				Market value share	Q	Acquisitiveness
New York-Newark-Bridgeport, NY-NJ-CT-PA	Healthcare	30	79	25%	3.354	0.049
	Finance	23	159	31%	1.377	0.019
Los Angeles-Long Beach-Riverside, CA	Healthcare	18	27	25%	3.288	0.034
	Telecommunication	16	6	23%	1.425	0.026
	Finance	13	53	22%	1.468	0.026
	Other	10	54	22%	1.695	0.057
	Oil, gas & coal extraction	6	5	25%	1.344	0.015
Chicago-Naperville-Michigan City, IL-IN-WI	Manufacturing	15	29	22%	1.555	0.012
	Finance	7	38	21%	1.109	0.015
San Jose-San Francisco-Oakland, CA	Business equipment	30	161	64%	2.910	0.079
	Oil, gas & coal extraction	5	3	21%	1.280	0.000
Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	Finance	27	42	33%	1.329	0.027
	Business equipment	10	24	24%	1.955	0.048
	Oil, gas & coal extraction	9	2	24%	1.021	0.000
	Manufacturing	5	5	20%	1.803	0.144
Boston-Worcester-Manchester, MA-NH	Other	20	5	67%	1.219	0.022
	Manufacturing	13	9	72%	1.973	0.027
	Finance	6	18	24%	1.226	0.005
Cleveland-Akron-Elyria, OH	Finance	24	10	38%	0.817	0.012
	Manufacturing	23	16	27%	1.501	0.021
	Chemicals	4	6	22%	1.531	0.076
Dallas-Fort Worth, TX	Oil, gas & coal extraction	30	22	40%	1.575	0.064
	Telecommunication	17	7	21%	1.256	0.081
	Business equipment	5	39	23%	2.583	0.101
Detroit-Warren-Flint, MI	Consumer durables	30	13	67%	1.009	0.020
Philadelphia-Camden-Vineland, PA-NJ-DE-MD	Chemicals	28	6	37%	1.390	0.046
	Telecommunication	12	3	25%	1.112	0.075
	Finance	8	37	24%	1.529	0.015

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Table IA-1: - *Continued*

Economic Area (EA)	Dominant industry	Frequency	Number of firms	Average		
				Market value share	Q	Acquisitiveness
Atlanta-Sandy Springs-Gainesville, GA-AL	Consumer nondurables	30	6	32%	1.858	0.017
	Wholesale & retail shops	13	9	22%	1.542	0.016
	Telecommunication	9	6	24%	1.648	0.065
	Other	3	11	20%	2.301	0.004
Houston-Baytown-Huntsville, TX	Oil, gas & coal extraction	30	64	49%	1.435	0.063
	Utilities	2	11	20%	0.742	0.008
Miami-Fort Lauderdale-Miami Beach, FL	Other	30	12	35%	1.304	0.069
	Wholesale & retail shops	16	14	25%	1.509	0.027
	Business equipment	15	7	23%	2.340	0.013
	Healthcare	3	11	21%	3.900	0.075
Minneapolis-St. Paul-St. Cloud, MN-WI	Manufacturing	26	17	25%	2.328	0.016
	Finance	23	10	32%	3.103	0.015
	Wholesale & retail shops	10	18	22%	1.914	0.007
	Consumer nondurables	5	9	21%	1.820	0.000
Seattle-Tacoma-Olympia, WA	Business equipment	29	15	56%	3.056	0.072
	Wholesale & retail shops	9	6	35%	3.235	0.011
	Telecommunication	2	2	20%	1.152	0.000
	Other	1	7	21%	2.807	0.005
Phoenix-Mesa-Scottsdale, AZ	Other	30	18	43%	1.632	0.044
	Manufacturing	9	9	27%	2.605	0.198
	Business equipment	3	14	21%	2.148	0.010
	Utilities	2	1	21%	0.477	0.000
Orlando-The Villages, FL	Wholesale & retail shops	27	3	39%	1.613	0.012
	Finance	17	4	35%	1.036	0.037
	Business equipment	4	5	22%	2.925	0.124
	Other	4	6	28%	1.481	0.197
Denver-Aurora-Boulder, CO	Telecommunication	19	9	46%	1.061	0.072
	Other	14	20	24%	1.792	0.038
St. Louis. Charles-Farmington, MO-IL	Consumer nondurables	29	5	33%	1.552	0.023
	Manufacturing	16	8	24%	1.442	0.032
	Business equipment	4	5	21%	2.095	0.001
	Wholesale & retail shops	4	5	23%	1.470	0.012
Indianapolis-Anderson-Columbus, IN	Healthcare	30	2	64%	3.351	0.025
	Finance	14	7	48%	0.869	0.012

Table IA-2: Summary statistics on subject firms from non-dominant industries in each economic area

Economic Area (EA)	Number of firms			Market capitalization		
	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation
New York-Newark-Bridgeport, NY-NJ-CT-PA	307	295	105	4222	3760	2776
Los Angeles-Long Beach-Riverside, CA	146	132	51	1127	1061	660
Chicago-Naperville-Michigan City, IL-IN-WI	82	65	30	3125	2844	923
San Jose-San Francisco-Oakland, CA	139	140	21	3729	3626	2418
Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	91	79	39	1827	1761	759
Boston-Worcester-Manchester, MA-NH	45	51	14	1723	1664	905
Dallas-Fort Worth, TX	155	145	33	2218	1965	1143
Detroit-Warren-Flint, MI	43	41	14	1384	1096	996
Philadelphia-Camden-Vineland, PA-NJ-DE-MD	115	107	29	1428	1238	712
Atlanta-Sandy Springs-Gainesville, GA-AL	80	78	21	2176	1867	1111
Houston-Baytown-Huntsville, TX	93	98	15	2287	2326	1052
Miami-Fort Lauderdale-Miami Beach, FL	34	29	17	517	314	457
Minneapolis-St. Paul-St. Cloud, MN-WI	60	51	21	2100	1624	1495
Cleveland-Akron-Elyria, OH	26	27	10	1331	1181	512
Seattle-Tacoma-Olympia, WA	36	35	10	2896	2896	1505
Phoenix-Mesa-Scottsdale, AZ	24	22	7	1258	1015	996
Orlando-The Villages, FL	8	7	3	360	329	266
Denver-Aurora-Boulder, CO	65	59	24	1194	785	938
St. Louis-St. Charles-Farmington, MO-IL	28	29	7	2312	2091	1092
Indianapolis-Anderson-Columbus, IN	15	13	6	849	646	633

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Table IA-2: - *Continued*

Economic Area (EA)	Tobin's Q			Acquisitiveness		
	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation
New York-Newark-Bridgeport, NY-NJ-CT-PA	1.751	1.818	0.270	0.038	0.030	0.029
Los Angeles-Long Beach-Riverside, CA	2.007	2.063	0.357	0.039	0.034	0.029
Chicago-Naperville-Michigan City, IL-IN-WI	1.808	1.809	0.259	0.040	0.025	0.042
San Jose-San Francisco-Oakland, CA	2.658	2.752	0.484	0.036	0.024	0.036
Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	2.169	2.140	0.350	0.045	0.029	0.041
Boston-Worcester-Manchester, MA-NH	2.382	2.329	0.582	0.031	0.020	0.035
Dallas-Fort Worth, TX	1.918	1.947	0.281	0.031	0.027	0.023
Detroit-Warren-Flint, MI	1.867	2.010	0.375	0.021	0.012	0.023
Philadelphia-Camden-Vineland, PA-NJ-DE-MD	2.030	2.043	0.283	0.031	0.032	0.021
Atlanta-Sandy Springs-Gainesville, GA-AL	1.809	1.858	0.301	0.071	0.054	0.054
Houston-Baytown-Huntsville, TX	1.804	1.788	0.254	0.044	0.031	0.042
Miami-Fort Lauderdale-Miami Beach, FL	2.027	2.045	0.440	0.042	0.027	0.051
Minneapolis-St. Paul-St. Cloud, MN-WI	2.581	2.540	0.363	0.036	0.030	0.032
Cleveland-Akron-Elyria, OH	1.287	1.263	0.213	0.027	0.015	0.051
Seattle-Tacoma-Olympia, WA	2.548	2.713	0.493	0.026	0.008	0.053
Phoenix-Mesa-Scottsdale, AZ	1.834	1.853	0.358	0.056	0.017	0.148
Orlando-The Villages, FL	1.732	1.511	0.661	0.053	0.002	0.124
Denver-Aurora-Boulder, CO	1.943	1.940	0.326	0.060	0.057	0.047
St. Louis-St. Charles-Farmington, MO-IL	1.469	1.399	0.362	0.025	0.019	0.024
Indianapolis-Anderson-Columbus, IN	1.371	1.238	0.381	0.018	0.001	0.032

Table IA-3: Robustness of Table 3 using $\ln(1 + ACQ_{i,t})$ as dependent variable

Dependent variables	(1)	(2)	(3)	(4)
		$\ln(1 + ACQ_{i,t})$		
$Q_{i,t-1}$	0.010*** (0.002)	0.010*** (0.002)	0.011*** (0.002)	0.011*** (0.003)
$\overline{Q}_{i,-j,t-1}^\alpha$	0.004*** (0.005)	0.004*** (0.009)	0.004*** (0.004)	0.004** (0.018)
$\overline{Q}_{-i,j,t-1}^\alpha$	-0.000 (0.358)	-0.000 (0.472)	-0.000 (0.603)	-0.001 (0.629)
$\overline{\ln(1 + ACQ)}_{i,-j,t-1}^\alpha$		0.006 (0.702)	0.003 (0.868)	0.003 (0.839)
$\overline{\ln(1 + ACQ)}_{-i,j,t-1}^\alpha$		0.002 (0.807)	0.002 (0.838)	0.003 (0.697)
$\ln(MVE)_{t-1}$			-0.013*** (0.000)	-0.013*** (0.000)
$SalesGrowth_{t-1}$			-0.004 (0.220)	-0.005 (0.204)
$Cash_{t-1}$			0.024** (0.026)	0.024** (0.023)
$Leverage_{t-1}$			-0.048*** (0.000)	-0.048*** (0.000)
$CashFlow_{t-1}$			0.034*** (0.003)	0.034*** (0.003)
Constant	0.002 (0.726)	0.002 (0.704)	0.245*** (0.000)	0.247*** (0.000)
Observations	37,170	36,880	34,453	34,453
Adjusted R-squared	0.104	0.103	0.102	0.103
Year F.E.	Yes	Yes	Yes	No
FF12 \times Year F.E.	No	No	No	Yes
Firm F.E.	Yes	Yes	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA

Table IA-4: Robustness of Table 3 using alternative dominant industry weighing

Dependent variable	(1)	(2)	(3)	(4)	(5)	(6)
	Acquisitiveness ($ACQ_{i,t}$)					
$Q_{i,t-1}$	0.026*** (0.002)	0.026*** (0.002)	0.026*** (0.002)	0.026*** (0.002)	0.026*** (0.002)	0.026*** (0.002)
$\bar{Q}_{i,-j,t-1}^{\alpha}$ (value-weighted)	0.011*** (0.009)	0.009** (0.016)				
$\bar{Q}_{i,-j,t-1}^{\alpha}$ (size-weighted)			0.011*** (0.008)	0.010*** (0.010)		
$\bar{Q}_{i,-j,t-1}^{\alpha}$ (minimum)					0.007** (0.039)	0.008** (0.034)
$\bar{Q}_{-i,j,t-1}^{\alpha}$	-0.001 (0.824)	-0.001 (0.755)	-0.000 (0.828)	-0.001 (0.757)	-0.000 (0.842)	-0.001 (0.776)
$\overline{ACQ}_{i,-j,t-1}^{\alpha}$ (value-weighted)	-0.015 (0.642)	-0.011 (0.726)				
$\overline{ACQ}_{i,-j,t-1}^{\alpha}$ (size-weighted)			-0.019 (0.544)	-0.016 (0.583)		
$\overline{ACQ}_{i,-j,t-1}^{\alpha}$ (minimum)					-0.021 (0.598)	-0.015 (0.690)
$\overline{ACQ}_{-i,j,t-1}^{\alpha}$	0.006 (0.712)	0.009 (0.561)	0.006 (0.716)	0.009 (0.560)	0.006 (0.712)	0.009 (0.557)
$Ln(MVE)_{t-1}$	-0.031*** (0.000)	-0.031*** (0.000)	-0.031*** (0.000)	-0.031*** (0.000)	-0.031*** (0.000)	-0.031*** (0.000)
$SalesGrowth_{t-1}$	-0.012 (0.181)	-0.013 (0.172)	-0.012 (0.183)	-0.013 (0.174)	-0.012 (0.179)	-0.013 (0.170)
$Cash_{t-1}$	0.040* (0.054)	0.040** (0.048)	0.040* (0.054)	0.040** (0.049)	0.040* (0.053)	0.040** (0.049)
$Leverage_{t-1}$	-0.082*** (0.000)	-0.083*** (0.000)	-0.082*** (0.000)	-0.083*** (0.000)	-0.082*** (0.000)	-0.083*** (0.000)
$CashFlow_{t-1}$	0.053* (0.052)	0.052* (0.059)	0.053* (0.052)	0.052* (0.059)	0.053* (0.050)	0.052* (0.057)
Constant	0.580*** (0.000)	0.581*** (0.000)	0.579*** (0.000)	0.580*** (0.000)	0.589*** (0.000)	0.586*** (0.000)
Observations	34,453	34,453	34,453	34,453	34,453	34,453
Adjusted R-squared	0.095	0.095	0.095	0.095	0.095	0.095
Year F.E.	Yes	No	Yes	No	Yes	No
FF12 \times Year F.E.	No	Yes	No	Yes	No	Yes
Firm F.E.	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA

Table IA-5: Robustness of Table 3: Impact of alternative standard error clustering choices

Clustering of standard errors	p -value for $\overline{Q}_{-i,j,t-1}^\alpha$	p -value for $\overline{Q}_{i,-j,t-1}^\alpha$
Firm	0.807	0.075
EA	0.828	0.015
FF12	0.819	0.112
FF12 & EA	0.826	0.038
FF12 \times EA	0.827	0.072
FF48	0.791	0.048
FF48 & EA	0.814	0.008
FF48 \times EA	0.819	0.064

Table IA-6: 2SLS first-stage regression estimates for Table 6

Panel A: Instrumenting for dominant industry local peers

Dependent variable	Table 6 column (1) $\overline{Q}_{i,-j,t-1}^\alpha$	Table 6 column (4)
$Q_{i,t-1}$	0.005 (0.388)	0.006** (0.048)
$\overline{Q}_{i,-j,t-1}^{-\alpha}$	1.078*** (0.000)	1.086*** (0.000)
$\overline{Q}_{-i,j,t-1}^{-\alpha}$	0.015** (0.028)	0.018 0.111
Other controls	No	Yes
Observations	34,772	34,772
Year F.E.	Yes	Yes
FF12 \times Year F.E.	No	Yes
Firm F.E.	Yes	Yes

Panel B: Instrumenting for same industry local peers

Dependent variable	Table 6 column (1) $\overline{Q}_{-i,j,t-1}^\alpha$	Table 6 column (4)
$Q_{i,t-1}$	0.011 (0.151)	0.000 (0.998)
$\overline{Q}_{i,-j,t-1}^{-\alpha}$	0.069 (0.443)	0.099** (0.043)
$\overline{Q}_{-i,j,t-1}^{-\alpha}$	0.710*** (0.000)	0.491*** (0.000)
Other controls	No	Yes
Observations	34,772	34,772
Year F.E.	Yes	No
FF12 \times Year F.E.	No	Yes
Firm F.E.	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA

Table IA-7: Robustness of Table 8 using $\ln(1 + ACQ_{i,t})$ as dependent variable

Dependent variable	(1)	(2)	(3)	(4)
		$\ln(1 + ACQ_{i,t})$		
$Q_{i,t-1}$	0.010*** (0.002)	0.010*** (0.002)	0.012*** (0.002)	0.012*** (0.003)
$\bar{\Gamma}_{i,-j,t}^{\alpha}$	0.008** (0.046)	0.009* (0.069)	0.011*** (0.009)	0.013*** (0.007)
$\bar{\Omega}_{i,-j,t}^{\alpha}$ (t-1)	0.003 (0.103)	0.003 (0.117)	0.004* (0.058)	0.005** (0.029)
$\bar{\Gamma}_{-i,j,t}^{\alpha}$	-0.004 (0.226)	-0.003 (0.266)	-0.004 (0.290)	-0.004 (0.304)
$\bar{\Omega}_{-i,j,t}^{\alpha}$	0.000 (0.842)	0.000 (0.943)	0.000 (0.846)	0.000 (0.906)
$\overline{\ln(1 + ACQ)}_{i,-j,t-1}^{\alpha}$		0.006 (0.786)	0.002 (0.935)	0.000 (0.987)
$\overline{\ln(1 + ACQ)}_{-i,j,t-1}^{\alpha}$		0.005 (0.691)	0.001 (0.910)	0.003 (0.855)
$\ln(MVE)_{t-1}$			-0.013*** (0.000)	-0.013*** (0.000)
$SalesGrowth_{t-1}$			-0.004 (0.241)	-0.004 (0.205)
$Cash_{t-1}$			0.024** (0.028)	0.024** (0.023)
$Leverage_{t-1}$			-0.051*** (0.000)	-0.051*** (0.000)
$CashFlow_{t-1}$			0.031*** (0.002)	0.031*** (0.002)
Constant	0.009 (0.127)	0.008 (0.151)	0.254*** (0.000)	0.258*** (0.000)
Observations	36,243	36,221	33,822	33,822
Adjusted R-squared	0.103	0.102	0.101	0.102
Year F.E.	Yes	Yes	Yes	No
FF12 \times Year F.E.	No	No	No	Yes
Firm F.E.	Yes	Yes	Yes	Yes
SE Clustering	FF48 & EA	FF48 & EA	FF48 & EA	FF48 & EA