# Does Local Competition and Firm Market Power Affect Investment Adviser Misconduct?

#### Michael Gelman

Department of Finance
Lerner College of Business and Economics,
University of Delaware,
42 Amstel Ave., Newark, DE, USA 19716
and
Department of Finance (Visitor),
Wharton School, University of Pennsylvania, USA

Email: gelmanm@udel.edu

#### Zaheer Khan

Business School University of Aberdeen, King's College, Aberdeen AB24 3FX, The United Kingdom

Email: <u>zaheer.khan@abdn.ac.uk</u>

## **Amir Shoham**

Fox School of Business
Temple University,
Fox School of Business 1801 Liacouras Walk, Philadelphia, PA
USA

Email: amir.shoham@temple.edu

# Shlomo Y. Tarba

Birmingham Business School University of Birmingham, University House, Edgbaston Park Road, Birmingham, B15 2TY The United Kingdom

Email: s.tarba@bham.ac.uk

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**Abstract** 

This paper examines the impact of local competition and local firm market power on misconduct

by analyzing the investment adviser market. The study is based on an extensive sample of more

than 3.8 million employee-year observations of investment advisers resulting in 709,416 firm-

county-year observations over 12 years. The findings show that a firm's county-level market

power and county market competition have a negative influence on investment adviser

misconduct. The result is robust to a battery of empirical tests. We show that a firm exhibits lower

levels of misconduct in counties in which it has greater local market power. We also identify the

effect of local competition and market power on misconduct using two exogenous shocks, mergers

and acquisitions (M&As) and the end of a local monopoly. We establish adviser employment

stability as a novel channel for explaining the impact of local competition and firm market power

on misconduct.

**Keywords:** Misconduct, Corporate Fraud, Investment adviser, Local competition, Local market

power, HHI

**JEL:** G2, G20, K42

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#### 1. Introduction

Given its impact on organizations and on a wide range of stakeholders, corporate misconduct has attracted increasing research interest (cf. Bennett et al., 2013; Cumming et al., 2015; Cumming et al., 2017; Cumming et al., 2018; Greve et al., 2010; Paruchuri & Misangyi, 2015). The importance of misconduct to corporations and society has motivated academics and policy makers to become interested in deepening the existing knowledge of the factors that cause it (e.g., Duffie & Stein, 2015; Griffin & Maturana, 2016; Piskorski et al., 2015). This paper examines the impact of local market power and local competition on misconduct. By focusing on the misconduct of investment advisers, we contribute to the literature by establishing a novel channel suited to explain the impact of a firm's local market power and of local competition on misconduct.

The previous literature recognizes the county as an important local environment unit that affects corporations, and indicates that county-level demographics have an essential impact on firm characteristics (e.g., Hilary & Hui 2009). More specifically, Egan, Matvos, and Seru (2019) presented the local market for financial advisers at the county level, providing empirical evidence that counties with less sophisticated clients are correlated with higher levels of misconduct. In addition, the literature on the banking industry shows that limited geographical markets, as those captured at the county level, are vital for understanding retail deposits (Berger & Hannan, 1989; Calem & Carlino, 1991) and loans (Hannan, 1991, 2003). Therefore, to analyze the influence of local market power and local competition on the misconduct of local investment advisers, we focused on the county level.

Investment adviser firms, like any company, are affected by their local market environments through the average local competition and their own position in the local market (e.g., market power). As a firm's prominence can influence a market, a firm's market power is traditionally

captured by its size in relation to the total market (e.g., Berger, 1995; Hannan, 1991). The literature indicates that high-growth firms may be more prone than low-growth ones to engage in misconduct (e.g., Clinard & Yeager, 1980; Snider & Pearce, 1995), indicating that performance and competition may play an important role in misconduct.

Average market competition is traditionally captured by the Herfindahl-Hirschman Index (HHI), which is used to analyze local financial markets (e.g., Berger, 1995, Berger & Mester, 1997). This commonly accepted measure of market concentration is calculated by squaring the market share of each firm competing in a market, and then summing the resulting values. Despite its popularity in the literature, the HHI does not, by itself, capture the exact market position of a firm. For example, a high HHI represents high concentration (low competition) in a local market. However, it could also represent a purely oligopolistic market in which only large companies have market power. Alternatively, the same high HHI could also represent a price-maker price-taker market in which the price-maker has market power, while the price-taker has very little influence. In other words, the HHI is a measure of the overall average competition found in a market (Rhoades, 1993) but does not reflect the market influence of a specific firm. For example, let us assume that a market that contains three companies with respective market shares of 46%, 27%, and 27%. This market is highly concentrated, with an HHI of about 36. A different market includes one dominant company with a 60% market share and many small companies (price takers) with negligible market shares. This market also has an HHI of about 36. As the example clearly shows, although all companies were affected by an HHI of 36, each has a visibly different influence on its market (market power). One additional example can be drawn from our data set. In 2016, Custer County, Oklahoma—which had an HHI of 36—included four companies with about 7% market share each, one with about 14% market share, and one with about 57% market share. Although all

these companies were affected by a concentration ratio of 36, at the same time, the largest company was setting the tone in the county, while the smaller ones had very little market power.

Therefore, it is crucial to distinguish between market power and the HHI and to capture the marginal effect of one, given the other. Whereas market power captures the strength of a firm in a local market, the HHI captures the average level of competition that affects all the firms in a local market, regardless of their specific size. We include both in our specifications in order to study the impact of a firm's local market power given the average local market competition, and the impact of the average local market competition given a firm's local market power.

We use a unique data set made up of a panel of individual US investment advisers in the years 2005-2017. It includes detailed data about each investment adviser's full employment history in the industry, and the disclosure history of disciplinary events. The data, which covers more than 430,000 advisers working in over 30,000 firms, yielding more than 3.8 million employee-year observations in total. We follow the methodology proposed by Egan et al. (2019) to classify any individual adviser misconduct that the firms had disclosed in response to FINRA (Financial Industry Regulatory Authority) requirements. Misconduct is classified in six categories: Customer Dispute – Settled, Regulatory – Final, Employment Separation after Allegations, Customer Dispute – Award/Judgment, Criminal – Final Disposition, and Civil – Final. In our calculations, we use dummy variables to represent the misconduct reported in a given year, and for a past record of misconduct.

Our main outcome variable is the share of advisers who had engaged in misconduct in the each year, calculated as the number of the advisers for whom misconduct has been reported in each year at the firm-county level, scaled by the total number of advisers that were employed by a firm in a county that year. Our main explanatory variables were local market power and average

local competition. We controlled for firm and firm-county characteristics. We include the fixed effects at the firm, county and year levels to show that the effects of a firm's market power and local competition hold regardless of its internal characteristics (Dimmock et al., 2018; Egan et al., 2018), and of any regulation determined at the state or national level (Charoenwong et al., 2019). We also use varied specifications at the firm-county-year level, both linear and nonlinear, to show that these results hold with different proxies for firm-county misconduct, firm local market power, and local competition level.

We find that firms with higher local market power exhibit fewer instances of misconduct, while higher local market concentration increases the occurrence of investment adviser misconduct. Our results shed new light on the factors influencing the occurrence of disciplinary events in the investment adviser industry.

Next, we study investment adviser misconduct reported by the same firm in the same year but in different counties, while removing county-year variation. We find that a firm exhibits fewer instances of misconduct in those counties in which it wields greater local market power, while more misconduct is exhibited in those counties characterized by higher local market concentration. Firm characteristics do not fully explain this variation. Our specification includes firm-year fixed effects, and we control for the number of advisers in each firm and its geographic expansion. Therefore, we conclude that, regardless of a firm's national-level characteristics, its local market power affects the level of misconduct engaged in by its advisers. We highlight the importance of local level market power, as our results hold for both large and small firms at the national level.

We take a number of steps to mitigate the scope of alternative explanations for our findings. Although all our regressions include firm, county and time fixed effects, we address them directly in two ways. First, we focus on mergers and acquisitions (M&As) that had occurred among

investment adviser firms (Dimmock et al., 2018) during our time window, as mergers increase the local market power of the acquiring firm. While any merger decisions are determined endogenously at the firm level, our data enables us to overcome this issue by observing the misconduct of individual advisers, rather than that of firms. Moreover, our analysis aggregates misconduct at the local level, while merger decisions are central strategic ones made at a higher level. The idea is that the advisers in the merged firms continue to work in the same counties (probably with the same client bases), but with increased local market power.

To overcome further endogeneity issues, we also used another method. We analyze locally monopolistic counties (i.e., those where only one firm was operating), in which at least one new firm had entered. This reduction in the local market power of the hitherto monopolistic firm had been exogenous, as the decision to start operating in a new market and the entrance timing had been made by the new entrants. Although this sample of counties excludes big cities—in which most clients and advisers were located—it represents an interesting case in which market power had decreased sharply from that of a monopolistic market to one with some level of competition. These cases enables us to clearly observe the impact of a firm's local market power on investment adviser misconduct.

In both analyses, we find that local market power has a negative impact on levels of misconduct—i.e., following a decline in the local market power of a previously monopolistic firm, its advisers' levels of misconduct increase, and following an increase in the local market power of acquiring firms, their reported misconduct levels decrease. We also find a positive impact of the HHI, indicating that an increase in competition at the county level reduces misconduct at the firm-county level.

Based on the above findings, we identify a novel channel, adviser employment stability, suited to explain the impact of a firm's local market power and of local market concentration on individual levels of misconduct. To ascertain the 'natural' level of turnover of employees in a firm, we concentrated on those advisers for whom no misconduct or complaints had been reported. We find that a firm's local market power is positively correlated with employment stability, meaning that advisers stay employed for longer periods of time in firms with stronger local market power. The effect of local concentration on adviser employment stability is negative, meaning that advisers in more competitive counties remain employed for longer by same firm.

These results were found to hold after including all of the control variables, and also when including firm-, county-, and time-fixed effects, as well as after including firm-year and county-year fixed effects. Firms consistently exhibit lower adviser turnover in those counties in which they wield greater local market power. Moreover, in counties with greater concentration, firms exhibit higher adviser turnover.

In firms with stronger local market power and in counties that are more competitive, advisers have more employment stability and are less likely to become involved in misconduct. In a firm-county level analysis, Egan et al. (2019) found that those financial advisers who engage in misconduct have a substantially higher probability of losing their job—at 2.5 times the mean job separation rate. Thus, those investment advisers who prefer a more stable employment environment and optimize their utility would be less likely to become involved in misconduct. An adviser's desire to maintain employment stability serves as a deterrent and reduces the motivation to become involved in misconduct because of the risks linked to being caught.

Our paper contributes to three main strands of the literature. First, the previous literature focused on the main factors that influence misconduct. At the firm level, such factors include

corporate culture (Bernheim, 1994; Liu, 2016; MacLean, 2008), board monitoring for detecting and curbing misconduct (e.g., Nguyen et al., 2016), and investor perceptions of those firms that are known to engage in misconduct (e.g., Akhigbe et al., 2005). At the individual level, any decision to engage in illegal activities or misconduct is a choice based on optimizing utility as a function of personal cost-benefit tradeoffs (Becker, 1968; Dimmock et al., 2019; Law & Zuo, 2020), and on co-worker influence (Banerjee, 1992; Dimmock et al., 2018; Ellison & Fudenberg, 1995). We contribute to the literature by demonstrating that a firm's local environment, in terms of both local average competition and the firm's local market power, influences the likelihood of misconduct beyond the individual- and internal firm-level characteristics.

Furthermore, we contribute to the literature on competition and wrongdoing by disentangling the impacts of local competition and of firm local market power. We show that market environments cannot be fully captured by analyzing HHI separately from local market power. Both the theoretical literature (e.g. Rud et al., 2017; Shleifer, 2004) and empirical studies on competition and wrongdoing show that higher competition may cause more wrongdoing. However, when disentangled from local market power, higher average levels of local concentration increase misconduct in ways similar to those found in oligopolistic markets; this is due to the fact that clients do not have many alternatives and firms are not 'punished' for misconduct. Moreover, past empirical studies found that competition increases wrongdoing by analyzing (e.g. Bennett et al., 2013) those types of misconduct that hurt supervisors or regulators; conversely, in our context, the misconduct hurts the client directly.

Finally, we contribute to the literature on investment adviser misconduct, which analyzes such misconduct at the individual level (e.g., Egan et al., 2019; Dimmock et al., 2018), co-worker influence on misconduct (cf. Dimmock et al., 2018), and the implications of the regulatory

jurisdiction (Charoenwong et al., 2019). Our study is the first to show the direct influence of a firm's local market environment beyond the factors previously considered. The distinction between a firm's local market power (beyond county-specific characteristics) and a county's level of competition contributes to a fuller understanding of the effects of local market environments on investment adviser misconduct.

# 2. Data and Methodology

# 2.1. Sample Construction and Main Variables

We use a unique data set made up of a panel of individual US investment advisers for the 2005-2017 period that was constructed by using publicly available data from the Security and Exchange Commission's (SEC) Investment Adviser Public Disclosure (IAPD®) Website.¹ The data set included detailed data pertaining to each investment adviser's complete employment history in the industry, and the disclosure history of any disciplinary events. We took into account the full names and Central Registration Depository (CRD) identification numbers of all registered and licensed investment advisers, their employers (each firm has a corresponding Investment Adviser Registration Depository (IARD) identification number²), locations of employment (city and state), tenures with their firms, and the disclosure information related to any customer complaints and misconduct. The dataset also enables us to identify those advisers who had left the industry. The data covers more than 30,000 firms employing more than 430,000 advisers. In total, we collected more than 3.8 million employee-year observations.

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<sup>&</sup>lt;sup>1</sup> The data set was constructed using the methods proposed by Egan et al. (2019, 2018). We would like to thank the authors for providing us with the data. In our research, we focused only on investment advisers.

<sup>&</sup>lt;sup>2</sup> Firms with distinct IARD numbers can have the same parent company. For example, Wells Fargo Advisors Financial Network is an arm of Wells Fargo that is composed of independent advisers who are affiliated, but not technically employed by Wells Fargo. Wells Fargo Advisors reflects Wells Fargo's in-house network of advisers (Egan et al., 2019). However, these firms also competed for clients and we wished to include this competition, especially as our focus was on the local level.

We follow the methodology proposed by Egan et al. (2019) to classify individual adviser misconduct reported by investment adviser firms as part of FINRA requirements. FINRA (Financial Industry Regulatory Authority) is the largest self-regulatory organization tasked by the US Congress with ensuring that the securities industry operates fairly and honestly. FINRA classifies disciplinary events into 23 disclosure categories, including civil, criminal, regulatory events, and disclosed investigations. As a disclosure is not always indicative of any wrongdoing, we focus on six categories: Customer Dispute–Settled, Regulatory–Final, Employment Separation after Allegations, Customer Dispute–Award/Judgment, Criminal–Final Disposition, and Civil–Final. For each adviser and in each year, we use a dummy variable that indicates whether there had been any misconduct, and a dummy variable to account for any past record of misconduct of each adviser.

Our goal is to analyze the impact of the local market power of investment adviser firms on the misconduct of their advisers; thus, we aggregated the individual data at the firm-county level. Using the details pertaining to the cities and states in which each adviser had been employed in each year, we manually matched the relevant counties. The county level represents the optimal aggregation choice, as the state level might be too broad because of the high heterogeneity between areas within a state, and the city level might be too narrow for our analysis because some cities are small and advisers might serve clients from other cities. However, following Parsons, Sulaeman, and Titman (2018)—who investigated financial misconduct through city-level data and concluded that local moral standards significantly affect levels of financial misconduct—we also use the city and the state levels to conduct robustness tests aimed at showing that our findings remained constant (see Section 6).

Our main outcome variable is the share of advisers who had been reported for engaging in misconduct during each year, calculated as the number of the advisers who had engaged in misconduct during each year at the firm-county level, scaled by the total number of advisers employed by each firm in each county that year. We also estimated the total occurrences of misconduct, rather than the share of advisers who had engaged in it, by calculating the log of 1 plus the amount of misconduct committed at the firm-county level each year. Another dependent variable is a dummy variable that is assigned the value of 1 for those firms that had reported at least one case of misconduct during a specific year at the county level, and 0 for those firms with no reported misconduct at the county-year level. Table 1 includes the full list of variables and their definitions.

#### Insert Table 1 here.

We employ two main explanatory variables. The first was a firm's local market power in a given year, calculated as the share of advisers it had employed in a county out of the total number of advisers operating in the same county. As investment adviser firms disclose their total assets under management and their total number of clients only at the aggregate firm level, rather than at the local one, we use the number of employees as a proxy for the firm's size and to estimate its local market power (following Charoenwong et al., 2019). The higher the share of a firm's advisers out of the total operating in a county, the larger its local market power. In Section 6, we show that our findings do not change after using the number of branches, instead of the number of advisers, to estimate a firm's local market power.

The second main explanatory variable is the average level of competition at the year-county level, estimated with the concentration ratio (HHI) by calculating the squared share of advisers in each firm at the county-year level. Counties with higher values of HHI are more concentrated. In

Section 6, as a robustness test, we present our estimate of the level of concentration at the county level using the C4 ratio.

We control for firm-county-year level and for firm-year level characteristics. At the firm-county-year level, we controlled for any records of past adviser misconduct; we did so following Egan et al. (2019), who showed that past misconduct is a strong predictor of future misconduct. We also evaluate the average tenure (in years) of each firm's advisers and the ratio of women out of the total number of advisers. These variables, which are available from our database, enable us to control for the specific characteristics of the advisers. As the dataset contains the names of the advisers but does not provide any information on their gender, we use the gender classification proposed by Egan et al. (2018), which was based on data drawn from GenderChecker, to estimate the gender of all advisers based on their first names.

At the firm-year level, we estimate firm size by evaluating two indicators, the total number of advisers employed by each firm each year and the number of counties in which the firm had operated. At the aggregate level, the more advisers a firm employed and the more geographically diverse it was, the higher was its aggregate market power.

# 2.2. Summary Statistics

Table 2 presents the summary statistics of our main variables. An average of close to 1% of all our sample investment advisers had been reported as engaging in misconduct each year, and one out of ten advisers had a record of at least one case of past misconduct.

#### Insert Table 2 here.

In an average county, 123 advisers had been employed in 23 firms, and misconduct had been reported for one of them each year. We observe high county-level heterogeneity among firms, as can be seen in the high standard deviation values. On average, each investment adviser firm

operated in 15 counties and employed 15 advisers. Every firm had employed five advisers per county, and the county-level local market power of each firm was 4.4%, with a median of 0.5%, indicating that most of the firms had not had significant market power; the market had been composed of multiple small firms, with a relatively high degree of competition between them.

# 3. Impact of local market power and competition on investment adviser misconduct

# 3.1. Baseline specification

We analyze the impact of the firm's local market power on investment adviser misconduct using the following baseline empirical specification:

$$Y_{ict} = Local \ power_{ict}\beta_1 + HHI_{ct}\beta_2 + K_{it}\beta_3 + K_{ict}\beta_4 + \alpha_i + \alpha_c + \alpha_t + \varepsilon_{ict}$$
 (1)

Where i is the investment adviser firm, c is the county, and t is the year.  $Y_{ict}$  stands for the share of the firm-county advisers who had been reported as engaging in misconduct in a specific year.  $Local\ power_{ict}$  is the local market power of the firm each year.  $HHI_{ct}$  stands for the concentration ratio.  $K_{ict}$  stands for the firm-county-year control variables,  $K_{it}$  includes the control variables at the firm-year level,  $a_i$  represents the firm fixed effects to account for any within-firm time-invariant characteristics common to all advisers employed at the same firm (such as compensation structure),  $a_c$  stands for the county fixed effects to account for the time-invariant county specific characteristics (such as client characteristics and wealth preferences),  $a_t$  is the year fixed effect that controls for the macro factors that influence all firms in a given year, and  $\varepsilon_{ict}$  is the error term. We cluster standard errors by firm and county. The sample period is from 2005 to 2017.

Table 3 presents the effect of the local market power of an investment adviser firm and of the local competition level on the occurrence of investment adviser misconduct. Panel A presents the results of our baseline specification with the share of advisers with reported misconduct as the outcome variable (Columns 1-2). The full sample results are presented in Columns 1 and 3, and the results for firm-counties with at least one case of misconduct a year are presented in Columns 2 and 4.

#### Insert Table 3 here.

We find that higher investment adviser firm local market power acts as a deterrent against misconduct, effectively reducing it. The results are economically significant. A one standard deviation increase in firm local market power decreases the share of advisers with instances of misconduct at the firm-county level by 0.55% for the whole sample, and by 15% for firm-counties with at least one case of misconduct in a given year. This accounts for a change of 66% in the mean share of advisers with instances of misconduct at the firm-county level and 0.07 standard deviations (see Table 2) in the full sample. The level of local concentration is also influential. A one standard deviation increase in local HHI increases the share of the advisers with instances of misconduct at the firm-county level by 0.42% for the whole sample and by 8.72% for firm-counties with at least one case of misconduct. This accounts for a change of 50% of the mean share of advisers with instances of misconduct at the firm-county level and 0.06 standard deviations.

The extant theoretical literature (e.g. Rud et al., 2017; Shleifer, 2004) and empirical studies on competition and wrongdoing already show that higher levels of competition may cause a greater incidence of wrongdoing; however, we disentangle the effect of average local competition from a firm's local market power, and show that higher concentration increases misconduct. In an oligopolistic market, clients do not have many alternatives and firms are not 'punished' for misconduct. Our paper is also the first analyze those types of investment adviser misconduct that hurt the client directly, whereas previous studies (e.g. Bennett et al., 2013) had analyzed types that harmed supervisors or regulators.

Our results shed new light on the factors influencing the occurrence of disciplinary events in the investment adviser industry. The fixed effects at the firm, county, and year levels, as well as the control variables, enable us to show that a firm's market power holds regardless of its internal characteristics (Dimmock et al., 2018; Egan et al., 2019) and of regulation determined at the state or the national level (Charoenwong et al., 2019). In Section 6, we present the robustness tests we perform to control for regulation by conducting the regression with state fixed effects and then the specification at the aggregated state level, instead of the county level.

## 3.2. Additional specifications

Next, we run the panel specification on the log of 1 plus the number of misconducts at the firm-county level each year (Columns 3-4 of Panel A). The number of firm-level instances of misconduct correlates with the number of advisers employed by each firm; thus, we control for a third-degree polynomial of the number of advisers employed by each firm in each county. Consistent with the above, we find a positive relationship between a firm's local market power and incidence of misconduct, and a negative one between level of concertation and occurrence of misconduct. In the sample, which includes only those firms with at least one case of misconduct, the effect of HHI was found not to be significant, albeit positive.

In Panel B of Table 3, we present non-linear specifications. In column 1, we present the results of a conditional logistic regression. The outcome variable is a dummy variable that we set to 1 if a firm had reported at least one case of misconduct at the county level, and to 0 otherwise. We include firm-county and time fixed effects. Consistent with the results above, the probability of misconduct occurring in firms with stronger local market power was found to be lower than in weaker firms, but higher in more concentrated counties.

In Column 2 of Panel B, we present a Poisson regression on the number of misconducts at the firm-county level. Here, we also control for the number of advisers at the firm-county level and include firm-county and time fixed effects. Our results are similar to those found for the previous specifications, with a negative effect of firm local market power, and a positive effect of local concentration.

We then analyze the control variables. In all full sample specifications, we found that a longer average tenure of a firm's advisers is correlated to a lower amount of misconduct. However, a history of past misconduct increases current misconduct, as was also found in the previous literature. We do not find consistent results for firm characteristics or for share of female advisers, indicating that the impact of market power holds for all firms, especially as we contro for firm and county- fixed effects.

# 3.3. Analysis of the same firm in different counties

In this section, we present our analysis of investment adviser misconduct occurring at the same firm during the same year but in different counties, while removing the county-year variation. We conduct the baseline specification on the number of instances of misconduct, but this time include firm-year and county-year fixed effects (instead of firm, county, and time fixed effects). The firm-year fixed effects remove the variations common to all advisers in the same firm during the same year, such as changes in internal monitoring, in firm policies, and in corporate governance, firms' strategic decisions to deploy resources and managerial focuses among different regions and to replace local managers, etc. The county-year fixed effects removed the variations common to all advisers in the same county during the same year, such as the economic and demographic characteristics of the local customer base, and any other local commonalities, including the propensity of local customers to file complaints. Additionally, Charoenwong et al. (2019) show

that the regulatory jurisdiction has an impact on consumer complaints. The fact that our fixed effects are at the county-year level also controls for any changes in state or national regulation. Table 4 presents the results.

#### Insert Table 4 here.

We find that the same firm had reported fewer instances of misconduct in those counties in which it has greater local market power, and more in counties with higher concentration. This variation cannot be fully explained by within-firm characteristics.

Our specification includes the firm-year fixed effects, and we control for the number of advisers in the firm and its geographic expansion. Therefore, we conclude that, regardless of a firm's characteristics at the national level, its local market power affects the misconduct of its advisers. We highlight the importance of local level market power, as our results hold for both large and small firms at the national level.

# 4. Mitigating the scope of alternative explanations

# 4.1. M&As among investment adviser firms

We take a number of steps to mitigate the scope of alternative explanations for our findings. Although all of our regressions include firm, county and time fixed effects, we address them directly in two ways. First, we focus on any M&As—which increase the local market power of the acquiring firm—that had been completed among our sample investment adviser firms (Dimmock et al., 2018) during our time window. While merger decisions are themselves endogenously determined at the firm level, our data enables us to overcome this issue by observing any instances of misconduct committed by individual advisers, rather than by firms. Moreover, our analysis aggregates misconduct at the local level, while mergers are enacted following central strategic—

i.e., higher level—decisions. The idea is that the advisers had continued working in the same counties (probably with the same client bases), but in new firms with higher local market power.

The data does not provide any indication regarding M&As. Dimmock et al. (2018) used the departure of 50 or more employees as an indication that a firm had been acquired. As our focus is on the local level, we used a different, but still conservative, approach. We identify as M&As those cases in which at least five advisers who had been hitherto employed in one firm (which we assume to be the target firm)—and had accounted for at least 93% of all the advisers<sup>3</sup> employed in it—had joined another one (the acquiring firm) in the same county. Although, because of cutoffs and changes in positions, some employees usually leave in the wake of a merger, we restricted our M&A sample to include only those firms in which most county-level advisers had remained. This enables us to reduce the probability of misconduct being associated with general dissatisfaction with change in ownership (which would have caused the departure of many employees). In this instance, we restricted our time window to one-year before and after the M&A to minimize other unobservable influences on investment advisers. Table 5 presents the results of our baseline specification around M&As.

#### Insert Table 5 here.

We find that following mergers, local market power has a negative impact on share of misconducts, meaning that acquiring firms exhibit a decrease in instances of misconduct following a local market power increase. In this specification, we find the county-level competition variable to not be significant, probably because of the short time window and of the fact that we include county-fixed effects. In this short window, any variation in HHI is not large enough to have

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 $<sup>^{3}</sup>$  The average number of advisers per firm county is 5.38 (see Table 1). 93% of 5.38 = 5 advisers.

significant effects; however, we chose to keep the fixed effects in order to show that the results were not driven by county-specific characteristics.

# **4.2.** Local monopolies

As our sample in the previous section is small, we also use another method to overcome endogeneity issues. We analyze those counties in which a local monopoly had previously existed—i.e., in which only one firm had operated—but at least one new firm had subsequently entered. Such reductions in the local market power of previously monopolistic firms are exogenous, as the decisions to start operating in new markets and on the timing of the entrances had been made by the new entrants. Although the counties in this subsample did not include large cities—in which most clients and the advisers are located—they represented interesting cases in which the market power of the erstwhile monopolistic firms had decreased sharply in the wake of the change to situations involving competition. These cases enable us to clearly observe the impact of a firm's local market power on the misconduct of its investment advisers.

As with M&As, to minimize other unobservable factors that might have influenced the advisers, we focused on a one-year window before and after the end of the monopolies. Column 2 in Table 5 presents the results of our baseline specifications around the end of a local monopoly. Consistent with our previous results, we find that local market power is negatively correlated with misconduct levels—i.e., following a decline in their local market power, the previously monopolistic firms had experienced an increase in cases of reported misconduct. We also find a positive impact of HHI, indicating that an increase in county-level competition reduces misconduct at the firm-county level.

# 4.3. Severity of misconducts

In this section, we distinguish between severe and minor cases of misconduct to demonstrate that local market power reduces the incidence not only of minor misconduct cases, but also of serious ones. Although our classification of misconduct is conservative—in that it included only six out of 23 categories and excluded any unsettled or unresolved cases—we analyze the severest reported cases of misconduct separately. We consider those cases in the Criminal–Final Disposition category as the severest, and the rest (in the customer and regulatory categories) as less severe.

To this end, we perform our baseline specification—equation (1)—by changing the outcome variable to the percentage of advisers who had been reported as engaging in criminal misconduct each year out of the total number of advisers employed by a firm in a county. The results are presented in Columns 1 and 2 in Panel B of Table 5.

Consistent with the previous sections, Column 1 in Panel B of Table 5 shows a negative relationship between a firm's local market power and the percentage of its cases of criminal misconducts at the county level. As we focus only on one of the six misconduct categories, we find the magnitude to be weaker but significant. Similarly to all types of misconduct, we find the association between local market concertation level and instances of severe misconduct to be positive. In Column 2 in Panel B of Table 5, we show the outcomes of same specification but, this time, we include the interaction between firm and time fixed effects and the that between county and time fixed effects (instead of firm, county, and time fixed effects). Similarly to section 3.3, this enables us to analyze the same firm in different counties, taking into consideration the county-level time variant specific characteristics. The negative relationship between a firm's local market power and cases of severe misconduct remains significant, while the effect of local market

concertation becomes insignificant (although still positive). This means that the same firm had reported fewer cases of severe misconduct in those counties in which it wielded greater local market power.

# 4.4. Operational efficiency

We estimated a firm's local market power and local market concentration by using its number of employees; however, its operational efficiency might have influenced the number of advisers it employed, and thus distorted our results. To this end, we control for the firm's operational efficiency (in addition to the rest of the control variables) and show that our results remain consistent. We use assets under management (AUM) per advisor as a proxy of operational efficiency, as this measure indicates the amount of assets a firm's advisors are able to attract and manage each year. We include operational efficiency in our baseline specification in equation (1)—on the percentage of a firm's county-level instances of misconduct. The firm fixed effects enable us to eliminate concerns that AUM per advisor is correlated with the characteristics of the counties in which each firm operates, with some having wealthier clients. The results are presented in Columns 3 and 4 in Panel B of Table 5.

Consistent with the previous sections, we find a negative association between a firm's local market power and its number of instances of misconduct, and a positive relationship between county local market concentration and misconduct levels. These results hold also in Column 4, which presents the results of performing the same specification but with firm x time fixed effects and county x time fixed effects (instead of firm, county, and time fixed effects). The firm x time fixed effects eliminate any concerns regarding the possible time-variant impact on AUM per adviser of the characteristics of the counties in which a firm operated.

# 4.5. Excluding counties with one firm

The presence of just one company in a county implies a fully monopolistic market structure in which both market power and the HHI are equal to 100. To ensure that our results were not driven by such unique cases, we run our baseline regression in Equation (1) for the share of firm-county advisers who had engaged in misconduct and excluding those counties with only one investment adviser firm. During our sample period, 16% of the county year observations had included only one firm.

Columns 5 and 6 in Panel B of Table 5 show that our results were not driven by the inclusion of monopolistic counties in our sample, as the effects of both local market power and the HHI remain consistent with our previous findings.

# 5. How does local market power affect misconduct?

Based on the above findings, this section identifies a novel channel—adviser employment stability—suited to explain the impact of an investment adviser firm's local market power on levels of individual misconduct. In their firm-county level analysis, Egan et al. (2019) found that those financial advisers who engage in misconduct have a substantially higher probability of losing their job, at 2.5 times the mean rate of job separation. Thus, investment advisers who desire high employment stability optimize utility by choosing to engage in less misconduct.

To this end, we conduct our baseline regression in Equation (1) for the share of the firm-county advisers who had engaged in misconduct among firms with high vs. low county-level employment stability. Employment stability is estimated as the log of the number of the firm-county advisers without misconduct records that had remained employed at the same firm in the same county in year t and year t-1. We focus on advisers without misconduct records in order to analyze the 'natural' turnover rate of employees in a firm in the absence of regulatory or juridical

decisions following misconduct. We divide firm-county employment stability into quintiles, with the firms in the upper quintile having high employment stability and those in the lower quintile having low employment stability. As the employment stability measure may correlate with firm size at the county level, besides controlling for the number of advisers at the firm-county level, we also add the second and the third power of the same number. Columns 1 and 2 in Table 6 show the results of this specification.

#### Insert Table 6 here.

We find that the relationship between a firm's local market power and its employment stability is negative only among firms with high employment stability, meaning that an increase in local market power reduces the levels of misconduct of advisers in firms with high employment stability. The effect of local market concentration on adviser employment stability is positive in both groups, similar to the previous results.

In Columns 3 and 4, we show that the above mentioned relationship holds not only across firms but also within the same firm. We included firm-year fixed effects to account for the firm's specific time varying changes in human resource strategy, its compensation structure, etc. The within-firm variation also eliminates any alternative channels stemming from changes in firm size at the national level and in internal supervision and reporting requirements, which are more common in larger firms.

For the same firm, any increase in local market power decreases misconduct levels only in counties with high employment stability. The advisers' goal of maintaining stable employment acts as a deterrent and reduces their motivation for misconduct, as the potential loss from being caught might jeopardize their employment stability.

#### 6. Robustness tests

We conduct varied robustness tests. First, we test a different proxy for our main explanatory variable, a firm's local market power; instead of the number of advisers, we use the number of branches a firm operated in a county out of the total number of branches of all firms in the same county. The dataset enables us to construct the number of advisers operating in each city, but it does not indicate how many branches a firm had in it. Therefore, in this specification, we exclude those counties with mainly (or only) big cities, such as like New York City or Philadelphia, in which firms potentially operated multiple branches. Our subsample includes only suburban and rural counties in which, according to census 2010 data, at least 25% of the population lived in rural areas, and that were unlikely to have more than one branch per firm per city. Column 1 in Table 7 presents the results of our baseline specification with the number of branches taken as a proxy of a firm's local market power.

# Insert Table 7 here.

Similar to our findings above, we find that local market power has a negative impact on a firm's misconduct levels and that the HHI has a positive impact on them.

Next, as shown in in Column 2 of Table 7, we shift the level of analysis from the county to the city. Parsons, Sulaeman, and Titman (2018), who investigated financial misconduct in local environments using city-level data, concluded that local moral standards significantly affect levels of financial misconduct. We conduct the baseline specification at the lowest aggregate level allowed by the data. We include city fixed effects to account for time-invariant city specific characteristics (such as city size and client characteristics). We used the share of a firm's advisers in each city out of the total number of advisers operating there as a measure of local market power. The HHI is calculated at the city level, while the average tenure, percentage of female advisers,

and percentage of past misconduct were calculated at the firm-city level. Our results at the city level are similar to the baseline ones. Although the analysis is conducted on a narrower basis, the negative effect of a firm's local market power and the positive one of concentration in the city still hold.

As mentioned earlier, Charoenwong et al. (2019) showed that the regulatory jurisdiction has an impact on consumer complaints. We address concerns regarding the differences between states by conducting the baseline specification and analysis at the state level (Column 3 in Table 7). We estimated the HHI at the state level, and calculate the average tenure and the female adviser and past misconduct percentages at the firm-state level. Additionally, in Column 4, we show the results of conducting our baseline specification at the county level, but with state (instead of county), firm, and time fixed effects. In both specifications, the effect of local market power is found to be consistent with the previous results. However, the HHI is found to be positive but not significant at the state level, probably due to the higher level of analysis and to the heterogeneity among different counties within each state.

In addition, as shown in Column 5 of Table 7, we use a different proxy for local concentration at the county level in our baseline specification. Instead of the HHI, we use the C4 measure, which is calculated as the shares of the four largest firms in each county every year, measured by their numbers of advisers. We find a similar negative impact of local market power and a positive effect of concentration level on investment adviser misconduct level.

Further, Column 6 of Table 7 presents the results of the baseline regression conducted at the county level to control for a firm's market power at the national level, estimated as the share of a firm's advisers out of the total number of advisers in the country (instead of the number of

advisers). Our results at the local level hold and are robust for different proxies of a firm's total market power.

## 7. Conclusions

In this paper, we presented our exploration of the impact of the local market environment on investment adviser misconduct. We found that the local market power of a firm at the county level reduces the instances of misconduct perpetrated by its financial advisers. On the other hand, increased (decreased) concentration (competition) at the county level, as captured by the HHI, increases the instances of misconduct of financial advisers. The results, which were found to be significant after controlling for firm, county and time fixed effects, are robust to a wide variety of empirical tests and classifications, including, among others, same firm in different counties. We also obtained significant and robust results for two exogenous shocks—M&As and the ending local monopolies—that mitigated the scope of alternative explanations. In addition, we identified a novel channel, based on adviser preference for employment stability, to explain the negative impact of a firm's local market power and the positive one of local market concentration on levels of individual misconduct. Given the importance of this topic, future studies could examine the role of top management team and corporate governance practices of firms, and how these mitigate or exacerbate advisors' misconduct.

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**Table 1: Variable definition** 

Variable name	Definition
Misconduct Share of the firm-county advisers with reports of misconduct	Number of advisers at the firm- county level with at least one case of misconduct reported in a given year / Num. advisers at the firm-county level in a given year
Log of 1 plus the number of misconducts reported at the firm-county level	Log of 1 plus the number of advisers with at least one case of misconduct reported at the firm-county level in a given year
Past misconduct firm-county	Log of 1 plus the number of the advisers with records of past misconduct at the firm-county level
Dummy misconduct firm- county	Dummy variable equal to 1 if the firm had reported at least one case of misconduct at the county level, and 0 otherwise
Num. misconducts firm-county	The number of advisers with at least one case of misconduct at the firm-county level in a given year
Share of the firm-county advisers with criminal misconduct records	Number of advisers at the firm- county level with at least one case of criminal misconduct reported in a given year / Number of advisers at the firm- county level in a given year
Share of the firm-city advisers with misconduct records	Number of advisers at the firm- city level with at least one case of misconduct reported in a given year / Number of advisers at the firm-city level in a given year
Share of the firm-state advisers with misconduct records	Number of advisers at the firm- state level with at least one case of misconduct reported in a given year / Number of advisers at the firm-state level in a given year
Local Market power Local market power	The share of a firm's number of advisers out of the total number of advisers in a county
Local market power - branch	The share of a firm's branches at the firm-county level / total number of a firm's branches
Local market power - city	The share of a firm's number of advisers out of the total number of advisers at the city level
Local market power - state	The share of a firm's number of advisers out of the total number of advisers at the state level
National market power	The share of a firm's total number of advisers out of the total number of advisers in the country
Market concentration County HHI	The sum of the squared market shares of all the firms operating in a county
County C4	The share of the biggest four firms in each county by number of

advisers

City HHI The sum of the squared market shares of all the firms operating in a

city

State HHI The sum of the squared market shares of all the firms operating in a

state

Other variables

Num. advisers firm-county

The total number of advisers employed by a firm in each county

Num. advisers firm-county<sup>2</sup> The second power of the number of advisers at the firm-county level

Num. advisers firm-county<sup>3</sup> The third power of the number of advisers at the firm-county level

Average tenure firm-county

The average years of tenure among the advisers at the firm-county

level

Female adviser percentage firm-county 
The share of female advisers out of the total number of advisers at the

firm-county level

Employment stability The share of the firm-county advisers without misconduct records that

remained employed at the same firm in the same county in years t and

t-1

Num. firm's advisers The total number of investment advisers employed by a firm

Num. firm's counties The total number of counties in which a firm operated

Operational efficiency The firm's AUM per adviser

**Table 2: Descriptive statistics** 

The descriptive statistics of the main non-dummy variables aggregated at the county-year, firm-county-year, and firm-year levels. Our sample included data on investment advisers for the 2005-2017 period.

	(1)	<b>(2)</b>	(3)	<b>(4)</b>	(5)	<b>(6)</b>			
VARIABLES	N	mean	median	sd	min	max			
County-year									
Num. advisers	30,953	123.24	8	669.38	1	27,955			
Num. firms	30,953	22.92	5	72.38	1	2,596			
Num. new misconduct	30,953	1.02	0	6.45	0	335			
% misconduct of total advisers	30,953	0.72	0	4.34	0	100			
ННІ	30,953	36.73	25	32.62	1.78	100			
C4	30,953	77.20	85.71	25.33	18.56	100			
	Firm-count	y-year							
Num. advisers firm-county	709,416	5.38	1	25.60	1	1,874			
Local market power (%)	709,416	4.36	0.49	11.88	0.003	100			
Share of the advisers with misconduct	709,416	0.83	0	7.56	0	100			
records in current year									
Share of the advisers with past	709,416	10.53	0	25.70	0	100			
misconduct records									
Firm-year									
Num. advisers	248,602	15.35	1	322.25	1	28,570			
Average tenure (years)	248,602	7.59	7	5.08	0	55			
Female adviser percentage	245,354	14.60	0	28.55	0	100			
Num. counties	248,602	15.09	5	308.04	1	27,190			

# Table 3: Impact of local market power and competition on investment adviser misconduct

Panel A presents the results of our panel regressions in Equation (1) for the share of the firm-county advisers with misconduct (Columns 1 and 2) and for the log of 1 plus the number of misconducts at the firm-county level (Columns 3 and 4). We present the results for the full sample in Columns 1 and 3 and only for firm-counties with at least one case of misconduct in a given year in Columns 2 and 4. We include firm, county and time fixed effects. Standard errors (in parentheses) are clustered by firm and county.

In column 1 of Panel B, we present the results of a conditional logistic regression when the outcome variable is a dummy variable equal to 1 if the firm had reported at least one case of misconduct at the county level and 0 otherwise. In Column 2 of Panel B, we present the results of a Poisson regression on the number of misconducts at the firm-county level. We include firm-county and time fixed effects.

Our main explanatory variables are *Local market power*, estimated as the share of a firm's number of advisers out of the total number of advisers in a county, and *County HHI*, calculated as the sum of the squared market shares of all the firms operating in a county. The control variables are: *Num. firm's advisers*, which is the total number of investment advisers employed by a firm; *Num. firm's counties*, which stands for the total number of counties in which a firm operates; *Average tenure firm-county*, calculated at the firm- county level; *Female adviser percentage firm-county*, calculated as the share of female advisers out of the total number of advisers at the firm-county level; *Past misconduct firm-county*, calculated as the log of 1 plus the number of the advisers with records of past misconduct at the firm-county level; *Num. advisers firm-county*, which stands for the total number of advisers employed by a firm in each county; *Num. advisers firm-county*<sup>2</sup> and *Num. advisers firm-county*<sup>3</sup>, which are the second and the third power of the number of advisers at the firm-county level. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

	(1)	(2)	(3)	(4)	
VARIABLES		with misconduct m-county	Log (1 + num. misconducts firm county)		
Panel A	Full Sample	Only with Misconduct	Full Sample	Only with Misconduct	
	-0.046***	-1.277***	-0.079***	-0.238***	
Local market power	(800.0)	(0.210)	(0.017)	(0.083)	
	0.036***	0.744***	0.060***	0.126	
County HHI	(0.005)	(0.204)	(0.012)	(0.107)	
Num. firm's advisers	-0.000*	0.001***	0.000	-0.000	
Num. Inm's advisers	(0.000)	(0.000)	(0.000)	(0.000)	
	0.000	-0.016***	-0.000	0.000	
Num. firm's counties	(0.000)	(0.003)	(0.000)	(0.000)	
Average tenure firm-county	0.019***	0.902***	-0.000***	0.001	
Average tenure mini-county	(0.005)	(0.157)	(0.000)	(0.001)	
Female adviser percentage firm-	-0.261***	-13.998***	-0.000	0.004	
county	(0.044)	(1.996)	(0.001)	(0.009)	
Past misconduct firm-county	2.761***	-2.198*	0.120***	0.190***	
r ast misconduct min-county	(0.249)	(1.270)	(0.004)	(0.015)	
			0.002***	0.000	
Num. advisers firm-county			(0.000)	(0.000)	
Num. advisers firm-county^2			-0.000	0.000***	
Trum, davisors firm county 2			(0.000)	(0.000)	
			-0.000	-0.000***	
Num. advisers firm-county^3			(0.000)	(0.000)	

Constant	0.018 (0.082)	25.484*** (2.461)	-0.012*** (0.003)	0.482*** (0.049)
Observations	672,216	19,046	672,216	19,046
R-squared	0.0596	0.6281	0.2789	0.3905
Firm FE	YES	YES	YES	YES
County FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

	(1)	(2)
VARIABLES	Dummy misconduct firm-county	Num. misconducts firm-county
Panel B		
	-0.030***	-1.082**
Local market power	(0.005)	(0.539)
•	0.015***	1.170**
County HHI	(0.006)	(0.507)
	-0.000	0.000
Num. firm's advisers	(0.000)	(0.000)
	0.000	0.000
Num. firm's counties	(0.000)	(0.000)
	-0.025***	-0.064***
Average tenure firm-county	(0.008)	(0.009)
	0.042	0.055
Female adviser percentage firm-county	(0.111)	(0.092)
	4.749***	3.716***
Past misconduct firm-county	(0.047)	(0.053)
		-0.017***
Num. advisers firm-county		(0.002)
		0.000***
Num. advisers firm-county^2		(0.000)
		-0.000***
Num. advisers firm-county^3		(0.000)
Observations	110,837	111,058
R-squared	0.3044	
Year FE	YES	YES
Firm-county FE	YES	YES

## **Table 4: Same firm in different counties**

The table presents the results of our panel regressions for the share of the firm-county advisers with misconduct records (Columns 1 and 2) and for the log of 1 plus the number of misconducts at the firm-county level (Columns 3 and 4); this time we include firm-year and county-year fixed effects. We present the results for the full sample in Columns 1 and 3 and those for only firm-counties with at least one reported case of misconduct in a given year in Columns 2 and 4. Our main explanatory variables are *Local market power*, estimated as the share of the firm's number of advisers out of the total number of advisers in a county, and *County HHI*, calculated as the sum of the squared market shares of all the firms operating in a county. Standard errors (in parentheses) are clustered by firm and county. \*p<0.1; \*\*\*p<0.05; \*\*\*p<0.01.

VARIABLES	(1) %Advisers with misconduct firm-county	(2) Log (1 + num. misconducts firm-county)
	-0.046***	-0.093***
Local market power	(0.010)	(0.025)
	0.048***	0.106***
County HHI	(0.010)	(0.024)
Controls	YES	YES
Observations	475,120	475,120
R-squared	0.0378	0.2799
Firm-year FE	YES	YES
County-year FE	YES	YES

# **Table 5: Mitigating the scope of alternative explanations**

Panel A of the table presents the results of our baseline regression in Equation (1) for the share of the firm-county advisers with misconduct records around two exogenous shocks. We consider a time window of only one-year before and after each shock. Column 1 presents the results for an M&A exogenous shock. Column 2 presents the results for an exogenous shock linked to monopolistic firms that started dealing with competition after at least one new firm had started operating in a county. Our main explanatory variables are *Local market power*, estimated as the share of a firm's number of advisers out of the total number of advisers in a county, and *County HHI*, calculated as the sum of the squared market shares of all the firms operating in a county. We include firm, county and time fixed effects.

Columns 1 and 2 of Panel B present the results of our baseline regression in Equation (1) for the share of the firm-county advisers with criminal misconduct records. Columns 3 to 6 of Panel B present the results of our baseline regression in Equation (1) for the share of the firm-county advisers with misconduct records, including *Operational efficiency* of the firm, proxied by the AUM per advisor in columns 3 and 4 and number of clients per advisor in columns 5 and 6. Only in columns 3 to 6, our sample ends in 2015. Columns 7 and 8 of Panel B present the results of our baseline regression in Equation (1) for the share of the firm-county advisers with misconduct records, excluding counties with only one investment adviser firm. We include firm, county, and time fixed effects in Columns 1, 3, 5, and 7 and firm-year, county-year fixed effects in Columns 2, 4, 6, and 8.

Standard errors (in parentheses) are clustered by firm and county. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

	(1)	(2) n misconduct firm-
VARIABLES	, , , , , , , , , , , , , , , , , , , ,	unty
Panel A	Mergers	End monopol
I a cal manifest manner	-0.365***	-0.046**
Local market power	(0.127)	(0.018)
Country IIIII	-0.058	0.033**
County HHI	(0.249)	(0.017)
Controls	YES	YES
Observations	252	1,500
R-squared	0.4135	0.3371
Firm FE	YES	YES
County FE	YES	YES
Year FE	YES	YES

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel B								
I a sal succelert second	-0.000***	-0.000***	-0.047***	-0.048***	-0.047***	-0.048***	-0.049***	-0.046***
Local market power	(0.000)	(0.000)	(0.008)	(0.010)	(0.008)	(0.010)	(0.009)	(0.010)
Country IIIII	0.000*	0.000	0.039***	0.052***	0.039***	0.052***	0.027***	0.048**
County HHI	(0.000)	(0.000)	(0.006)	(0.011)	(0.006)	(0.011)	(0.004)	(0.018)
Controls	YES							
Observations	672,216	475,120	395,042	341,280	395,041	341,280	666,948	475,042
R-squared	0.062	0.108	0.066	0.135	0.066	0.135	0.106	0.153
Firm FE	YES		YES		YES		YES	
County FE	YES		YES		YES		YES	
Year FE	YES		YES		YES		YES	
Firm-year FE		YES		YES		YES		YES
County-year FE		YES		YES		YES		YES

# **Table 6: Employment stability**

The table presents the results of our baseline regression in Equation (1) for the share of the firm-county advisers with misconduct records among firms with high and low employment stability at the county level. Employment stability is estimated as the log of the number of the firm-county advisers without misconduct records that remained employed at the same firm in the same county in years t and t-1. We divide firm-county employment stability into quintiles, with the firms in the upper quintile having high employment stability (columns 1 and 3) and those in the lower quintile having low employment stability(columns 2 and 4). Our main explanatory variables are *Local market power*, estimated as the share of a firm's number of advisers out of the total number of advisers in a county, and *County HHI*, calculated as the sum of the squared market shares of all the firms operating in a county. Besides controlling for the number of advisers at the firm-county level, we also add its second and the third power. In Columns 1 and 2, we include firm, county, and time fixed effects. In Columns 3 and 4, we include firm-year and county fixed effects. Standard errors (in parentheses) are clustered by firm and county. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

	(1)	(2)	(3)	(4)		
VARIABLES	%Advisers with misconduct firm- county					
	Lower quintile	Upper quintile	Lower quintile	Upper quintile		
Local market newer	-0.005	-0.075***	-0.000	-0.074***		
Local market power	(0.004)	(0.010)	(0.004)	(0.010)		
Courte IIII	0.008**	0.064***	0.004	0.064***		
County HHI	(0.004)	(0.008)	(0.004)	(0.008)		
Controls	YES	YES	YES	YES		
Observations	307,026	275,711	196,263	228,665		
R-squared	0.129	0.139	0.140	0.126		
Firm FE	YES	YES				
Firm-year FE			YES	YES		
County FE	YES	YES	YES	YES		
Year FE	YES	YES				

## **Table 7: Robustness tests**

The table presents the results of our baseline regression in Equation (1) for the share of the firm-county advisers with misconduct records with different robustness tests. In Column 1, we estimate the local market power using the share of a firm's branches (instead of its advisers). Columns 2 and 3 present the results at the city and state levels, respectively (instead of at the county level). Column 4 presents the baseline regression with state fixed effects (instead of county fixed ones), and firm and time fixed effects. In Column 5, we estimate the baseline regression at the county level using C4 as a proxy for county concentration level (instead of the HHI). *County C4* is calculated as the share of the biggest four firms in each county every year by number of advisers. Column 6 presents the results of the baseline regression at the county level controlling for a firm's market power at the national level, estimated as the share of a firm's total number of advisers out of the total number of advisers in the country (instead of the number of advisers). The *HHI* is calculated as the sum of the squared market shares of all the firms operating in a county in Column 2, in a city in Column 3, and in a state in Column 4. We include firm, county and time fixed effects in Columns 1, 5, and 6; firm, city and time fixed effects in Column 2; and firm, state and time fixed effects in Columns 3 and 4. Standard errors (in parentheses) are clustered by firm and county. \*p<0.1; \*\*p<0.05; \*\*\*p<0.05.

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	%Advisers with misconduct firm-county	%Advisers with misconduct firm-city	%Advisers with misconduct firm- state	%Advisers with misconduct firm-county	%Advisers with misconduct firm-county	%Advisers with misconduct firm-county
Local market navier branch	-4.795***	•		-		
Local market power - branch	(0.738)					
Local market newer				-0.030***	-0.031***	-0.046***
Local market power				(0.005)	(0.006)	(0.008)
Local market power-city		-0.008***				
		(0.002)				
Local market power-state			-0.433***			
Local market power-state			(0.096)			
County HHI	3.790***			0.036***		0.036***
County IIII	(0.530)			(0.005)		(0.005)
City HHI		0.005***				
City IIIII		(0.002)				
State HHI			0.021			
State IIII			(0.041)			
County C4					0.693**	
County C4					(0.270)	

Notional montret mayren						-15.697
National market power						(27.876)
Controls	YES	YES	YES	YES	YES	YES
Observations	161,347	976,901	361,956	672,255	672,216	672,216
R-squared	0.0722	0.1041	0.0975	0.0568	0.0594	0.0596
Firm FE	YES	YES	YES	YES	YES	YES
County FE	YES				YES	YES
City FE		YES				
State FE			YES	YES		
Year FE	YES	YES	YES	YES	YES	YES