

Erasmus University Rotterdam

Erasmus School of Economics

Master Thesis – Financial Economics

Conglomerate-Affiliated Mutual Funds' Performance:

The effects of the Colombian Conglomerates Law

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‡ I would like to express my gratitude to my family for their unwavering support throughout this journey. Your belief in me has been my constant motivation. Special thanks to my thesis supervisor, Ricardo Barahona, for his invaluable guidance and patience. His mentorship has played a crucial role in shaping my thesis. I am also grateful to Carla Stanciu and Nicolás Ceballos for their valuable observations and commentaries, which have enriched the quality of my work.

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Abstract:

This thesis examines the performance of Colombian mutual funds managed by conglomerate-affiliated companies and evaluates the effects of the Conglomerates Law through a difference-in-differences estimation. Conglomerate-affiliated funds outperform unaffiliated funds by 1.68 percentage points annually over the 2016 - 2022 period, and the Conglomerates Law did not successfully reduce the affiliated funds' outperformance to a significant level. However, the effects of the Law are dissimilar between funds managed by different types of companies. Broker-managed funds' performance was negatively affected by -1.78 percentage points, while fiduciary-managed funds' performance was not significantly affected. These findings suggest that conglomerate affiliation provides informational advantages, and the Conglomerates Law was only partially successful in mitigating the distortions.

JEL Codes: G00; G2; G11; G23; G28.

1. Introduction

Fiduciary companies and broker companies manage Colombia's mutual funds. As of December 2022, the total Assets Under Management (AUM) of Colombia's mutual funds industry represent about 6% of the country's GDP. Historically, more than 70% of these AUM have been managed by conglomerate-affiliated companies. In 2017, Colombia's congress approved the Conglomerates Law to align with the principles for the supervision of financial conglomerates by Basel's Committee on Banking Supervision. These facts raise three questions: To what extent does conglomerate affiliation influence mutual funds' performance? Did the Conglomerates Law affect mutual funds' performance? And do affiliation and new regulations have different effects on the performance of fiduciary-managed and broker-managed funds?

To answer these questions, academic literature provides a working framework on the relationships between financial groups and their funds' performance, while the uniqueness of the Colombian institutional setting must be understood.

Research has found a relationship between mutual funds' performance and the affiliation of the asset manager to a controlling company. This effect may operate through the conflicts of interest hypothesis, where managers make decisions detrimental to investors and in favor of their controlling companies; or the information advantage hypothesis, where there are flows of privileged information within the financial group. Nevertheless, institutional, and regulatory settings play a significant role in how relationships are managed within a financial conglomerate (Golez & Marin, 2015; Gil-Bazo et al., 2020; Ferreira et al., 2018; and Massa & Rehman, 2008).

In Colombia, fiduciary companies differ from brokerage companies in the activities they are authorized to carry out. However, both types of financial institutions may manage mutual funds, regardless of their (non)affiliation with a financial conglomerate. Maignashca (2016) highlights that mutual funds managed by fiduciary companies often intertwine with their mercantile trust activities, creating unique incentive structures.

These questions and hypotheses are put to the test using a comprehensive sample of Colombian mutual funds over the period 2016 to 2022. Conglomerate affiliation is defined by the explicit regulation by Colombia's Financial

Superintendencia (SFC for its Spanish acronym). Moreover, the Conglomerates Law offers a unique setting, as it provides a natural experiment that is evaluated through the Difference in Differences (DD) method. Implemented in Colombia from mid-2019, the Conglomerates Law: provides a precise definition of the financial conglomerate; includes the holding into the scope of supervision and regulation; and establishes prudential requirements regarding capital, exposure and concentration limits, conflicts of interest, related parties, corporate governance, internal control mechanisms, and information disclosure.

This thesis shows that Colombian conglomerate-affiliated mutual funds outperform unaffiliated funds by 1.68 percentage points per year over the 2016 to 2022 period. The regulation from the Conglomerates Law did not have a significant effect on the performance of the overall sample of conglomerate-affiliated funds. However, the Law's effects vary between manager types, with broker-managed affiliated funds showing a significant decrease of -1.78 percentage points in their performance and fiduciary-managed affiliated funds' performance not being significantly affected.

In the context of Colombian mutual funds, the mechanisms influencing their performance in relation to their conglomerates have not been studied. Existing research has identified various mechanisms in different institutional settings, such as supporting stock prices, favoring debt securities during financial uncertainty, and overweighting stocks of lending clients to strengthen relationships with borrower firms. However, there is still a need to explore novel channels, such as how funds may leverage their relationships within a conglomerate to manage cash equivalents more efficiently. Further research into these mechanisms could lead to improved regulation and better mitigation of systemic risks, thanks to the framework provided by the Conglomerates Law.

This thesis's main contribution is to provide evidence on the informational advantages in Colombian conglomerate-affiliated mutual funds, and the success in mitigating some of them with new regulations.

The document is organized as follows: Section 2 provides a comprehensive overview of the current literature. Section 3 states the document's working hypotheses. Section 4 provides the methodology for testing the hypotheses. Section 5 describes the data. Section 6 reports the results, and section 7 provides robustness tests. Section 8 concludes.

2. Literature Review

Academic literature establishes that the relationship between a conglomerate-affiliated asset management company and its controlling holding can impact the performance of mutual funds through its investment decisions. To understand the relationship between mutual fund managing firms and financial conglomerates in Colombia, a review of the recent history of the institutional setting of the Colombian financial sector is performed. Moreover, in line with international supervision standards, Law 1870 of 2017 (Financial Conglomerates Law) updates the Colombian regulatory framework to better manage financial risks that arise from conglomerates. This literature review dives into these three issues to better understand how conglomerate affiliation may have effects on mutual funds' performance and how the Conglomerates Law may impact those dynamics.

2.1. Mutual Funds Performance and Conglomerate Affiliation

The relationship between a conglomerate-affiliated asset management company and its controlling companies within the conglomerate can impact the performance of mutual funds through its investment decisions. These effects can be explained by the conflicts of interest hypothesis, where managers make decisions that are detrimental to investors and in favor of their controlling companies; or the information advantage hypothesis, where there are flows of privileged information within the group. Additionally, the institutional and regulatory environment also plays a vital role in how relationships are managed within a financial group.

Ferreira et al. (2018) identify three scenarios regarding the conglomerate-affiliation effects on the performance of mutual funds. In the first scenario, asset managers would benefit their controlling bank at the expense of fund investors, which is the conflict of interest hypothesis. Second, the lending business would provide information that benefits investment managers, called the information advantage hypothesis. Finally, conglomerates would impose "walls" that prevent communication between mutual fund managers and the banking business, and thus achieving full independence; the null hypothesis.

Conflicts of interest in financial institutions occur when one party in a transaction can benefit by taking actions that are detrimental to its counterparty

(Mehran & Stulz, 2007). In this case, the asset manager, who must look after the best interest of the fund investors, could make portfolio decisions that benefit its controlling company, which is usually a bank or a financial conglomerate.

Golez & Marin (2015) and Gil-Bazo et al. (2020) find evidence for the conflicts of interest hypothesis through two mechanisms in mutual fund investment decisions: i) supporting stock prices, especially before anticipated price drops or after unanticipated devaluations; and ii) demanding debt securities, being particularly useful in times of financial uncertainty. Using a larger sample of countries, Ferreira et al. (2018) find a negative impact on mutual funds' performance when the asset management firm is subordinate to a banking group. This is interpreted as evidence in favor of the conflict of interest hypothesis between the controlling company's business and the asset management business.

The information advantage hypothesis implies that the managers of a conglomerate-affiliated mutual fund overweight in their portfolios the securities of companies that receive loans from their controlling bank or other conglomerate affiliated institutions. Massa & Rehman (2008) provide evidence for this hypothesis in the US institutional environment, which is explained as a consequence of privileged information flows. In contrast, they find no evidence for a scenario in which asset managing divisions simply pay more attention to the controlling bank's clients.

It is worth noting that regulators play a key role in this discussion. The institutional environment has a significant impact on the dynamics that may occur within a financial group. Naturally, regulatory solutions can emerge and even impose costs on financial institutions. In their literature review on conflicts of interest in financial institutions, Mehran & Stulz, (2007) indicate that regulatory costs can end up simply replacing the costs of conflicts of interest. Also, Ferreira et al. (2018) find that the performance of mutual funds in common-law countries is less affected by conflicts of interest, indicating better protection of investor rights. In turn, evidence on the transmission channels for the conflict of interest hypothesis is found in regulatory environments that are less restrictive with portfolio decisions by managers (Golez & Marin, 2015; Gil-Bazo et al. 2020).

2.2. Colombian Mutual Funds

To understand the relationship between mutual fund managing firms and financial conglomerates in Colombia, it is imperative to have an adequate understanding of the recent history of the institutional setting of the Colombian financial sector. Mutual funds⁴ may be managed by three types of institutions: i) fiduciary companies, ii) brokerage companies, and iii) investment management companies (Decree 663 of 1993). The characteristics and origins of these institutions play a vital role in mutual fund management and their relationship within financial conglomerates.

Law 45 of 1990 brought about significant changes to the institutional structure of the Colombian financial system. To adapt and modernize it to confront the process of economic and financial opening that was taking place, it modified essential aspects of the legal regime for financial intermediaries. One of the main changes introduced by this Law was the authorization of new operations and activities in the system, which allowed financial intermediaries to create subsidiaries for the provision of fiduciary services and of pension fund management (Ocampo, 2015). At the same time, banks (credit establishments in Colombian law) were prohibited from directly carrying out fiduciary services, which resulted in the creation of specialized companies to conduct these types of activities. Most of these firms continue to be majority controlled by their originating bank.

Fiduciary companies differ from brokerage companies in the activities they are authorized to carry out. According to Maignashca (2016), mutual funds managed by fiduciary companies are usually permeated and intertwined with their other activities related to mercantile trust⁵. This sets unique incentives structures for fiduciary companies, as they are effectively linking investors with their own unrelated fiduciary businesses within the same, usually money market, mutual funds, potentially leading to conflicts of interest that can be detrimental to the investors.

These characteristics resulted in an unconsolidated regulatory framework for the administration of mutual funds in Colombia until 2013, as the regulation divided

⁴ Formally defined as FICs (Collective Investment Funds for initials in Spanish) by Colombian law.

⁵ Includes multiple fiduciary activities such as administration, real estate, and guarantee. Notably, real estate projects will store their sales' proceeds in money market mutual funds until break-even has been reached and construction activities may start.

the vehicles managed by brokerage companies and fiduciary companies. Decrees 1242 and 1243 of 2013 unified and aligned the regulation of Colombian mutual funds with international standards.

Moreover, Colombian regulations, in Decree 2555 of 2010 (article 3.1.3.2.4., num. 4), mandate that mutual fund managing companies have the duty to identify, control and manage situations that may generate conflicts of interest. This grants institutions a certain degree of discretion. However, in Colombia, they are prohibited from allocating resources from the funds, either directly or indirectly, to support the liquidity of the same company, its subsidiaries, or its parent company or its subsidiaries (Varón, 2019). While this implies a series of restrictions with other entities within their financial group, the 2017 Conglomerates Law delves deeper into these specific issues.

2.3. Financial Conglomerates in Colombia and The Conglomerates Law

Financial conglomerates have become prevalent in the Colombian financial system in the last two decades. They have expanded to other countries in Central America and, until 2017, the Colombian Financial Superintendence (SFC for its initials in Spanish) had limitations to properly supervise and regulate these conglomerates. In line with international supervision standards, Law 1870 of 2017 (Financial Conglomerates Law) updates the Colombian regulatory framework to better manage financial risks that arise from conglomerates.

After opening its economy in the early 90s, Colombia experienced a process of bank concentration during the rest of the decade and the first years of the 21st century. The Colombian mortgage crisis of 1999 accelerated the privatization of the banking sector and the reduction of the number of institutions. Of the 158 banking institutions that existed in 1995, only 56 remained by 2005 (Ocampo, 2015). At the same time, Laws 45 of 1990 and 35 of 1993 led to the creation of entities that carried out a variety of intermediation activities, such as fiduciary services and pension fund management.

The process of concentration is an essential part of the appearance and consolidation of financial conglomerates. The first decade of the 21st century was characterized by extensive financial sector restructuring, with large privatizations,

and mergers and acquisitions. Using the legal structures of the Colombian business group (Law 222 of 1995), financial conglomerates began to consolidate. The control and subordination relationships, as well as the purpose and direction elements provided by the controlling holding, are established in conglomerates during this period. Given that not all structures within the conglomerate perform financial intermediation activities, part of the structure of financial conglomerates has not been historically supervised or monitored by the SFC.

After the 2007 global financial crisis, Colombian financial conglomerates have made a strong expansion toward the so-called "multilatins." Their presence in Central America has been consolidated beyond Panama, entering and achieving significant positions in El Salvador, Nicaragua, and Costa Rica (Ocampo, 2015). Consequently, the International Monetary Fund, in its 2013 Financial System Stability Assessment, pointed out the need to strengthen the regulation of Colombian financial conglomerates. By then, controlling holdings, as well as financial companies abroad, were not strictly under the supervision of the SFC.

The Financial Conglomerates Law (Law 1870 of 2017) sought to incorporate the principles for the supervision of financial conglomerates of Basel's Committee on Banking Supervision (2012). Thus, the Law provides precise definition of the financial conglomerate; includes the holding into the scope of supervision and regulation; and establishes prudential requirements regarding capital, exposure and concentration limits, conflicts of interest, related parties, corporate governance, internal control mechanisms, and information disclosure.

While the law grants some discretion to conglomerates, they must establish mechanisms to manage risks within them, which can be understood as a significant adjustment in their operating criteria. From the implementation of the Conglomerates Law, mutual fund managing companies must enforce risk management mechanisms and institute exposure and concentration limits with entities within their conglomerate, with which they had fewer restrictions before the Law taking full effect.

Despite the Conglomerates Law being approved in September 2017, its implementation timeline started later with Decrees 246, 774, and 1486 of 2018, published in February, May and August, respectively. A transition regime was set during 2019, and conglomerates performed regulatory reporting drills through the second semester with data for the first six months of the year. By November

2019 compliance with conglomerate-level capital requirements was mandatory, and by February 2020 exposure and concentration risk policies were in full effect. In practice, the Conglomerates Law was mostly implemented by the end of June 2019, as regulatory reporting test runs were being conducted with the SFC.

3. Hypothesis

Affiliation with banking institutions have shown to have an effect on the performance of affiliated mutual funds. The academic literature provides two feasible hypotheses: the conflict of interest hypothesis and the informational advantage hypothesis. In the first one, managers make decisions that are detrimental to investors and in favor of their controlling companies, leading to underperformance. In the second one, flows of privileged information within the group lead to over performance. However, “walls” within the financial group structure or the institutional/regulatory environment may detract from these behaviors: the null hypothesis. These same hypotheses can be extrapolated to Colombian financial conglomerates affiliation.

Colombia has a strict regulation regarding the freedom that mutual fund managers have to invest in securities of their parent companies. This institutional arrangement aims to limit conflicts of interest that could be unfavorable for investors. Moreover, internal controls should be placed within the companies to manage these risks. The null hypothesis for Colombian conglomerates is as follows:

H0: Conglomerate-affiliation of a mutual fund management firm has a null effect on funds’ performance relative to funds of non-affiliated management firms.

Trading on privileged information is also strictly forbidden in Colombia. However, regulation tools are limited regarding information flows and other potential channels that may benefit funds of conglomerate-affiliated firms. Alternatively to *H0*, the information flows and conflicts of interest hypotheses are condensed as follows:

H1: The affiliation of a mutual fund management firm with a conglomerate leads to a significant distortion of funds’ performance relative to funds of non-affiliated management firms.

The recent Conglomerates Law makes mutual fund management firms set control mechanisms for conflicts of interest and institute exposure and concentration limits with other conglomerate-affiliated companies. This should have an effect on mutual fund performance of conglomerate affiliated firms by eliminating, to some extent, under or over performance.

H2: The Conglomerates Law measurably eliminates previous mutual funds' performance distortions induced by conglomerate-affiliation.

Fiduciary companies and brokers in Colombia are authorized to manage mutual funds, but their operational focus is inherently different. Fiduciary companies are involved in mercantile trust and fiduciary businesses, while brokers have exclusive rights to operate commission contracts. Mutual funds managed by fiduciary companies are then permeated and intertwined with their mercantile fiduciary activities (Maiguashca, 2016). This sets unique incentives structures for fiduciary companies, as they are effectively linking investors with their own unrelated fiduciary businesses within the same, usually money market, mutual funds. This potentially leads to conflicts of interest that can be detrimental to the investors. Consequently, characteristics of mutual fund managing firms may influence performance differently, contingent on the type of activities they perform. The following hypothesis arises:

H3: The performance effects of conglomerate-affiliation are distinct, both before and after the implementation of the Conglomerates Law, for Fiduciary societies and Brokerage companies.

Measuring performance and disentangling causal effects are the main concerns to be solved to properly test these hypotheses.

4. Methodology

Two steps are performed to evaluate the effects of the 2017 Financial Conglomerates Law in Colombia. The first step is to adequately measure the performance. This procedure uses Jensen's alphas as risk adjusted returns. The second step consists in estimating the effect in this natural experiment setting, where conglomerate affiliated funds are the treated group and non-affiliated funds are the control group. Using a Difference-in-Differences setting, Ordinary Least Squares (OLS) is used to properly perform causal inference.

4.1. Measuring risk-adjusted mutual fund performance

Following the literature on mutual funds, performance of Colombian mutual funds between 2016 and 2022 is estimated as a Jensen's alpha. As Dahlquist et al. (2000), I decompose a fund's return into the systematic and non-systematic components. The first refers the part that can be replicated with benchmarks or broad market indices and the second to the risk-adjusted performance (alphas).

The following equation is estimated for each fund:

$$R_{i,t} = \alpha_i + \beta_{1,i} * MKT_{i,t} + \beta_{2,i} * YCSlope_{i,t} + \beta_{3,i} * Colcap_{i,t} + \beta_{4,i} * MCI World + \epsilon_{i,t} \quad (1)$$

where $R_{i,t}$ is the annualized monthly return of a portfolio in excess of the Banrep (Colombia's Central Bank) repo-rate; MKT is the excess return of the total Mutual Fund Market benchmark portfolio; YCSlope is the slope of Colombia's sovereign debt yield curve (10Y-1Y); Colcap is the excess returns of the local equity market index; and MSCI World is the Colombian Pesos (COP) excess returns of this benchmark world index. The use of this broad benchmarks capture the multiplicity of investment styles and strategies of funds. These time invariant coefficients from the estimation are then used to compute time-varying Jensen's alphas that capture the non-systematic component of returns: performance.

Furthermore, robustness checks are performed by using both a simplified model that only uses the Mutual Fund Market Portfolio, emulating a CAPM specification, and the simple difference between the funds' return and the return of said market benchmark.

4.2. Evaluating the Conglomerates Law effect on mutual fund performance

The Conglomerates Law can be considered a natural experiment, as a group of mutual funds is simultaneously subject to a regulatory change. Once the Law came into effect by mid-2019, mutual funds had to implement risk managing mechanisms and establish limits on exposure and concentration with other companies within their conglomerate. Explicit attention was given to potential

conflicts of interest within the financial group. Therefore, this document aims to conduct causal inference using the difference-in-differences (DD) method.

It is common to use the DD estimator in quasi-experiments. The estimator design requires a treatment group, which in this case is composed by the financial conglomerate-affiliated mutual funds, and a non-treated group, which consists of mutual funds that are not part of any conglomerate. There is a period before and after the treatment for both groups. The estimator is defined, in its simplest form, as follows:

$$\hat{\delta} = [E(\alpha_T|Post) - E(\alpha_T|Pre)] - [E(\alpha_U|Post) - E(\alpha_U|Pre)] \quad (2)$$

where $\hat{\delta}$ is the DD estimator; $[E(\alpha_T|Post) - E(\alpha_T|Pre)]$ is the expected difference in performance of mutual funds managed by affiliated companies before and after the implementation of the Law; and $[E(\alpha_U|Post) - E(\alpha_U|Pre)]$ is the difference in performance of non-affiliated funds before and after the implementation of the Law. By estimating the difference in the evolution of the two groups, we obtain the DD estimator (Bernal and Peña, 2011; Cunningham, 2021).

By adding zero and rearranging the terms of the equation, we can decompose the estimator as follows:

$$\hat{\delta} = \underbrace{\{E(\alpha_T^1|Post) - E(\alpha_T^0|Post)\}}_{ATT} + \underbrace{\{[E(\alpha_T^0|Post) - E(\alpha_T^0|Pre)] - [E(\alpha_U^0|Post) - E(\alpha_U^0|Pre)]\}}_{Non-parallel\ trends\ bias} \quad (3)$$

This expression allows for a better understanding of the counterfactual underlying the DD methodology. In this case, the effect being estimated is $\{E(\alpha_T^1|Post) - E(\alpha_T^0|Post)\}$, which is the difference between the performance of conglomerate-affiliated funds after the implementation of the law, given that they were treated (observable), and the performance of these same funds if the regulatory change had not occurred (unobservable counterfactual). The first term in the equation represents the Average Treatment on the Treated (ATT) only if the second term is equal to zero. This is commonly referred to in the literature as the parallel trends assumption (Cunningham, 2021).

Given this conceptual framework, estimating DD using OLS is the best approach to understand the effect of the Conglomerates Law on the performance of Colombian mutual funds. In the simplest case, we can define the equation to be estimated as follows:

$$\alpha_{i,t} = \beta_0 + \beta_1 * Conglomerate_i + \beta_2 * Post_t + \delta * (Conglomerate_i * Post_t) + \sum_{n=1}^j \beta_n \bar{X}_{i,t} + \epsilon_{i,t} \quad (4)$$

where $\alpha_{i,t}$ is the performance of the mutual fund in period t; *Conglomerate* is a dichotomous variable equal to 1 if the mutual fund is managed by a company affiliated with a conglomerate, and 0 otherwise; *Post* is a dichotomous variable equal to 1 in the period after the implementation of the Conglomerate Law, and 0 otherwise; $\bar{X}_{i,t}$ is a vector of j variables that control for the characteristics of the funds to ensure comparability; and $\epsilon_{i,t}$ is the error term.

The stated regression equation coefficients can be easily interpreted to fit the DD framework. β_0 represents the average performance of non-affiliated funds before the regulatory change, while $\beta_0 + \beta_2$ is the estimate for this same group of funds after the regulation took place. On the other hand, $\beta_0 + \beta_1$ represents the performance of conglomerate-affiliated mutual funds before the Conglomerates Law, and $\beta_0 + \beta_1 + \beta_2 + \delta$ is the estimate for the performance of this group after the regulation took full effect. By using equation 2, it is easily computed that OLS is directly estimating the effect size of the Conglomerates Law as coefficient δ , while at the same time using the slope of the untreated group as the counterfactual (parallel trends assumption).

Finally, in addition to estimating the causal effect for all mutual funds, a DD estimation is conducted for subgroups of managers: fiduciary companies and brokerage companies. This estimation uses the same OLS specification stated earlier.

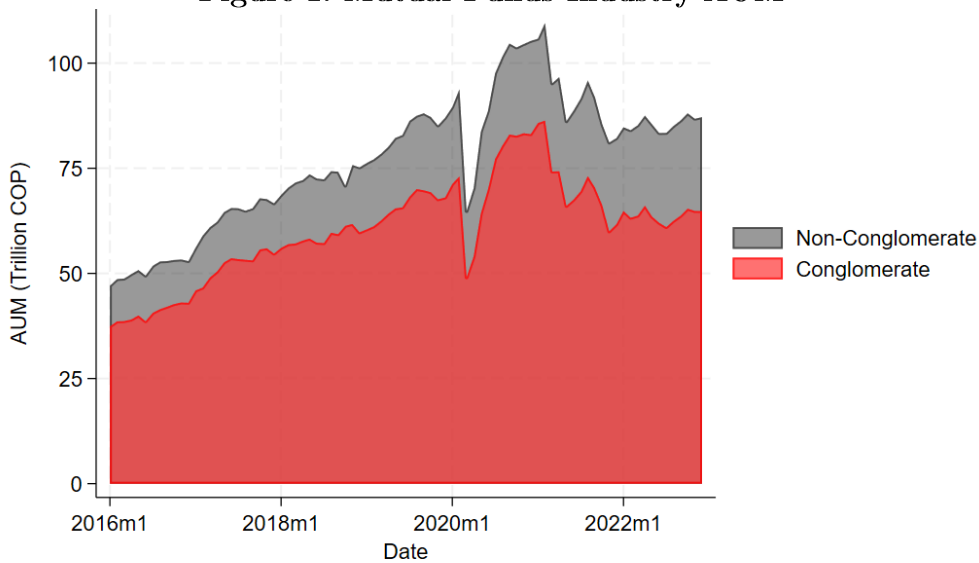
Robustness tests are conducted to assess the parallel trends assumption and results are estimated with two more performance measures: a CAPM based alpha of a simplified Equation 1, and the simple difference between individual portfolio excess returns and the market benchmark.

5. Data

5.1. Mutual Funds and Conglomerates

The monthly data for Colombian mutual funds comes from the published information by Colombia's Financial Superintendence (SFC for its Spanish acronym) between January 2016 and December 2022. Private Equity Funds and funds absent from the database for more than four years have been excluded. This results in a final sample of 159 mutual funds. As of December 2022, the 123 active funds in the sample had a total AUM (Assets Under Management) of approximately COP\$87 trillion (US\$18 billion), representing 6% of Colombia's GDP (see Figure 1). There are 11,757 individual observations, of which 7,420 belong to conglomerate-affiliated funds.

Figure 1: Mutual Funds Industry AUM



To classify funds as affiliated or non-affiliated with a conglomerate, explicit regulation by the SFC has been used as a criterion. That is, if a mutual fund's managing company (fund family) is affiliated to one of the 13 conglomerates identified for supervision purposes by the SFC under Law 1870 of 2017, the mutual fund is considered conglomerate-affiliated. Table 1 illustrates the 12 conglomerates that are actually present in the Colombian mutual fund industry. Seven of them are local conglomerates, seven of them engage in the insurance industry, and all of them have at least one banking institution. Out of the 33 fund families in the sample, 19 are conglomerate-affiliated (57%). This results in 96 of the mutual funds in the sample being affiliated with a financial conglomerate, representing 60.3% of the funds in the sample. The remaining funds

are considered non-affiliated (see Table 2). As of December 2022, the 88 active conglomerate-affiliated funds in the sample managed 74.3% of the industry's AUM.

Table 1: Financial Conglomerates and Mutual Funds Industry

This table presents the Colombian financial conglomerates, the number of mutual funds managed within the conglomerate, the number of fund families in each conglomerate, whether the conglomerate is considered local by the SFC and whether there is an insurance company present in the conglomerate.

	Mutual Funds	Fund Families	Local	Insurance
BBVA	5	1	No	Yes
BTG Pactual	10	1	No	No
Scotiabank	2	1	No	No
Cooomeva	4	1	Yes	Yes
Credicorp Capital	13	2	Yes	Yes
Grupo Aval	24	4	Yes	No
Sura-Bancolombia	12	2	Yes	Yes
Bolívar	12	2	Yes	Yes
Fundación Social	3	1	Yes	Yes
Itaú	4	1	No	No
Skandia	4	1	Yes	Yes
GNB Sudameris	3	2	No	No
Total	96	19		

Table 2: Number of Mutual Funds by Manager Type

This table presents the number of mutual funds by type of financial institution that manages the funds, the number of conglomerate-affiliated funds by type of manager, and the number of non-affiliated funds by type of manager.

	Total	Conglomerate	Non- Conglomerate
Fiduciaries	91	61	30
Brokers	63	35	28
Investment Managers	5	0	5
Total	159	96	63

Among the 33 managers in the sample, 22 are fiduciary companies (66.7%), 10 are brokers (30.3%), and only one is an Investment Manager (3%). Consequently, fiduciary companies have a predominant weight within the mutual fund sample, as they manage 57.2% of the funds (see Table 2). Meanwhile, 39.6% of the funds are managed by brokers, and the remaining 3.2% are managed by investment managers (as of December 2022, investment managers had completely liquidated their mutual funds). Out of the 91 funds managed by fiduciary companies, 67%

are conglomerate-affiliated, while the remaining 23% are independent. In contrast, 55% of the 63 funds managed by brokers are affiliated, while the remaining 45% are not affiliated with any conglomerate. This higher representation of independent brokers within the mutual fund industry may be attributed to the consolidation process of the Colombian financial system during the 1990s and the banking origin of fiduciary companies. The only investment manager in the sample is not part of a conglomerate, so none of their funds are affiliated.

Table 3: Mutual Funds by type of asset classes

This table presents the number of funds within 6 distinct investment focus categories, the number of conglomerate-affiliated funds in each category, and the number of non-affiliated funds per category.

	Total	Conglomerate	Non-Conglomerate
Stocks	16	11	5
Credit Assets	8	4	4
Balanced	16	14	2
Real State	12	7	5
Fixed Income	91	57	34
Others	16	3	13
Total	159	96	63

Table 3 illustrates the predominance of fixed-income-focused mutual funds. Out of the 159 funds in the sample, 91 exclusively invest this asset class. This overall pattern holds true regardless of conglomerate affiliation. Balanced funds, which include both stocks and bonds, are less prevalent in the overall sample, with just 16 in total, 14 of which are conglomerate-affiliated funds.

The high concentration of the industry's products in just one asset class reflects two key factors. Firstly, the intertwining of these funds in mercantile trust activities promotes the creation of conservative investment products. Secondly, the mandatory use of fiduciaries for conducting real estate projects and State level infrastructure projects, incentivizes the creation of these low risk-return vehicles. This, combined with the limited demand for other types of products with other risk-return profiles, hinders incentives towards innovation in new funds.

Table 4 shows the summary statistics of the characteristics of the mutual funds in the sample. The average fund has COP\$534 billion (USD) in AUM. However, the standard deviation, as well as the difference between the 95th percentile and the median, indicate a large dispersion in the data, especially seen in the right

tail of the distribution. In other words, this industry is highly concentrated in a few funds. The largest fund, as of December 2022, represents 13% of the total industry AUM.

Conglomerate-affiliated funds are on average larger, with average AUM of COP\$667 billion, while non-affiliated funds' AUM are COP\$307 billion. Moreover, affiliated funds have, on average, a higher number of investors (17,000 vs. 6,000). On the other hand, the large COP\$0.7 billion average investment (about 700 Colombian minimum wages) suggests that the average investor in mutual funds is a company rather than an individual retail investor.

On average, a funds family has AUM of COP\$3.3 trillion. Once again, the right tail of the data is substantially long, indicating the concentration of the industry in a handful of companies. The largest fund family accounted for 17% of the fund industry by the end of the studied period (compared to 25% in 2016). Additionally, both the AUM and the number of investors of the average manager are larger in conglomerate-affiliated funds. Finally, the average conglomerate-affiliated fund family accounts for approximately 11% of the industry's AUM at any given time, while representing 10% of the investments.

Although both fiduciary companies and brokers in Colombia are authorized to manage mutual funds, they fundamentally engage in inherently different activities. Fiduciary companies are involved in mercantile trust and fiduciary activities, while brokers have exclusive rights to operate commission contracts. Maignashca (2016) noted that mutual funds managed by fiduciary companies are permeated and intertwined with their mercantile fiduciary activities. Consequently, the both types of companies have different incentive structures.

Table 4: Mutual Funds Summary Statistics

Panels A, B, and C present the mean, standard deviation, 5th percentile, median, 95th percentile, number of funds and number of observations for each variable in the overall sample of Colombian mutual funds over the 2016 and 2022 period.

<i>Panel A: All Sample</i>					
	(1)	(2)	(3)	(4)	(5)
	Mean	St. Dev.	5th Pct.	Median	95th Pct.
MF AUM (Billion COP)	534.18	1,317.08	2.75	70.94	2,662.51
MF AUM Share	0.01	0.02	0.00	0.00	0.03
MF Average Investment	0.76	3.55	0.01	0.10	2.31
MF Investors	12,941.85	60,928.24	17	632	44,671
MF Investor Share	0.01	0.03	0.00	0.00	0.03
MF Family AUM (Billion COP)	3,347.62	3,910.10	90.80	2,228.89	9,859.03
MF Family AUM Share	0.04	0.05	0.00	0.03	0.15
MF Family Investors	81,192.44	212,967.76	479.00	12,599.00	314,157.00
MF Family Investors Share	0.04	0.11	0.00	0.01	0.17
Conglomerate Dummy	0.63	0.48	0.00	1.00	1.00
<i>Performance</i>					
Alpha (Multivariate Model)	-0.13	10.1	-14.85	-0.12	12.19
Alpha (CAPM)	0.99	15.07	-18.55	-0.12	24.26
Diff. Benchmark Performance	0.98	15.6	-22.18	-0.08	26.63
Funds	159				
Observations	11757				
<i>Panel B: Conglomerate-Affiliated</i>					
	(1)	(2)	(3)	(4)	(5)
	Mean	St. Dev.	5th Pct.	Median	95th Pct.
MF AUM (Billion COP)	666.82	1,506.83	4.30	157.82	2,742.22
MF AUM Share	0.01	0.02	0.00	0.00	0.03
MF Average Investment	0.80	3.81	0.01	0.11	2.28
MF Investors	16,995.33	72,662.89	16.50	1,116.00	59,257.50
MF Investor Share	0.01	0.04	0.00	0.00	0.03
MF Family AUM (Billion COP)	4,369.60	4,156.64	449.75	3,440.32	15,483.80
MF Family AUM Share	0.06	0.05	0.01	0.05	0.20
MF Family Investors	106,861.73	258,358.85	2,494.50	15,032.00	936,465.00
MF Family Investors Share	0.06	0.14	0.00	0.01	0.52
Conglomerate AUM	8,664.17	6,863.54	545.03	7,546.77	21,857.56
Conglomerate AUM Share	0.11	0.09	0.01	0.09	0.29
Conglomerate Investors	194,307.17	329,541.38	4,432.00	80,452.00	1,130,222.50
Conglomerate Investor Share	0.10	0.18	0.00	0.05	0.56

(Continued)

Table 4 - Continued

<i>Panel B: Continued</i>					
<i>Performance</i>					
Alpha (Multivariate Model)	0.19	10.48	-15.53	-0.05	14.39
Alpha (CAPM)	1.61	15.80	-19.20	-0.06	29.70
Diff. Benchmark Performance	1.53	16.42	-22.75	-0.01	31.49
Funds	96				
Observations	7,420				
<i>Panel C: Non-Conglomerate</i>					
	(1)	(2)	(3)	(4)	(5)
	Mean	St. Dev.	5th Pct.	Median	95th Pct.
MF AUM (Billion COP)	307.23	858.27	2.08	27.60	2,237.46
MF AUM Share	0.00	0.01	0.00	0.00	0.03
MF Average Investment	0.70	3.03	0.01	0.07	2.36
MF Investors	6,006.91	30,896.70	17.00	342.00	10,742.00
MF Investor Share	0.00	0.02	0.00	0.00	0.01
MF Family AUM (Billion COP)	1,599.16	2,654.13	71.73	262.54	8,829.07
MF Family AUM Share	0.02	0.03	0.00	0.00	0.10
MF Family Investors	37,275.88	75,520.57	407.00	9,598.00	249,434.00
MF Family Investors Share	0.02	0.04	0.00	0.01	0.12
<i>Performance</i>					
Alpha (Multivariate Model)	-0.67	9.40	-13.26	-0.28	7.57
Alpha (CAPM)	-0.08	13.68	-16.79	-0.21	13.60
Diff. Benchmark Performance	0.04	14.04	-19.35	-0.18	16.32
Funds	63				
Observations	4,337				

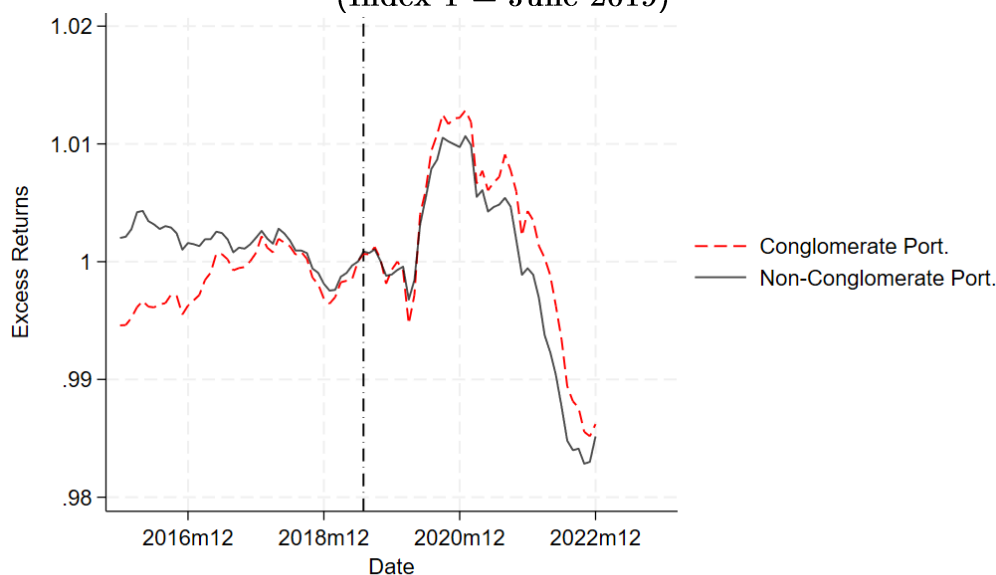
The Tables 9 and 10 show that the funds managed by fiduciary companies in the sample are, on average, larger, with average AUM of COP\$699 billion, while brokers have an average AUM of COP\$314 billion; roughly half the size. This pattern holds at the conglomerate level, as the average affiliated fund managed by a fiduciary company has an AUM of COP\$770 billion, while those managed by brokers have an average AUM of COP\$485 billion. More notably, the difference is a full order of magnitude for non-affiliated broker-managed funds. In the case of non-affiliated funds managed by fiduciary companies, the average AUM is COP\$548 billion, while the average for corresponding funds managed by brokers is only COP\$56 billion; a factor of almost 10. These differences are consistent for the number of investments as well as the total AUM of managers and their investments.

The average Jensen's alpha generated by a mutual fund is -0.13 annual percentage points (pp). This overall performance is larger for conglomerate-affiliated funds than for non-affiliated ones. The average conglomerate-affiliated alpha reaches +0.19 annual pp, while it is -0.67pp in non-affiliated funds. Similar to the overall sample the broker's affiliated alpha is 0.96 annual pp, while the non-affiliated fund has an average of -1.77 annual pp. However, when taking a closer look into fiduciary companies, conglomerate-affiliated average alpha is -0.25 annual pp, and +0.12 annual pp for non-affiliated funds; opposite from the overall sample. These differences are rigorously examined for testing the four stated hypotheses.

6. Results

Consider the difference in excess returns of two hypothetical portfolios: one consisting of all conglomerate-affiliated funds and the other one of all the non-affiliated funds. As seen in Figure 2, the Conglomerate Portfolio yielded higher excess returns before and after the Conglomerates Law was rolled out; however, this does not directly mean that affiliated managers are better performers or that they were not affected by the Law. Three empirical issues are addressed to disentangle the true effect of affiliation with conglomerates and the impact of the Conglomerates Law. First, returns are adjusted by the risk undertaken by each fund. Second, observable characteristics are controlled for, as they may explain variation in performance. Finally, differences between fiduciary and broker managers are examined.

**Figure 2: Portfolio Performance - Conglomerate vs. Non-conglomerate
(Index 1 = June 2019)**



Source: Own Calculations with SFC open data.

Results reported in this section provide answers to this document's hypotheses. In summary, the null hypothesis H_0 is rejected, and H_1 is confirmed, as conglomerate affiliation disrupts funds' performance in their favor. The performance of conglomerate-affiliated managed funds is significantly affected by the Conglomerates Law. However, the impact of the Law is confirmed to vary between fiduciary and broker-managed mutual funds, as it only affects negatively the performance of the latter.

6.1. Simple differences – A Naïve Approach

Following Equation 1, the risk-adjusted returns (Jensen's alphas) were calculated using four factors for the Colombian mutual fund market: i) the excess return of the constructed mutual fund market portfolio; ii) the steepness of the Colombian sovereign debt yield curve; iii) the excess returns of the local Colcap index; and iv) the COP returns of the MSCI World. Table 5 summarizes the results of this procedure for all the sample as well as the difference between conglomerate-affiliated and non-affiliated funds, both before and after the Conglomerate Law implementation. Results are reported separately for Fiduciaries and Brokers in Panels B and C. The Appendix provides a more detailed graphical view of the estimated betas for each factor.

**Table 5: Mutual Funds Performance:
Effects of the Conglomerate Law – Naïve approach**

Panel A presents the means of the estimated Jensen's Alpha for the overall funds in the sample, for conglomerate affiliated funds, and for non-affiliated funds. The means are calculated over all the time periods, the Pre-Conglomerates Law period, and the Post-Conglomerates Law period in each case. Column 4 presents the difference in means. A basic naïve estimation of DD is presented and the observations in the estimation are reported. Robust standard errors are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively. Panels B and C replicate the estimations for the fiduciary managed subsample and the broker managed subsample, respectively.

<i>Panel A: All Sample</i>				
	(1)	(2)	(3)	(4)
	All	Mean Conglomerate	Mean Non- Conglomerate	Difference
Total Sample	-0.127 (0.0932)	0.188 (0.122)	-0.667*** (0.143)	0.855*** (0.188)
Pre-Conglomerates Law	0.00893 (0.130)	0.470*** (0.168)	-0.692*** (0.206)	1.162*** (0.266)
Post-Conglomerates Law	-0.264** (0.133)	-0.0713 (0.175)	-0.638*** (0.195)	0.566** (0.262)
Naïve DD	-0.596 (0.373)			
Observations	11,757			

(Continued)

Table 5 - Continued

<i>Panel B: Fiduciaries</i>				
	(1)	(2)	(3)	(4)
	All	Mean Conglomerate	Mean Non- Conglomerate	Difference
Total Sample	-0.131 (0.0814)	-0.248** (0.0985)	0.117 (0.144)	-0.365** (0.175)
Pre-Conglomerates Law	-0.0809 (0.109)	-0.276** (0.126)	0.325 (0.210)	-0.601** (0.245)
Post-Conglomerates Law	-0.177 (0.119)	-0.223 (0.149)	-0.0780 (0.198)	-0.145 (0.247)
Naïve DD	0.456 (0.348)			
Observations	6,972			
<i>Panel C: Brokers</i>				
	(1)	(2)	(3)	(4)
	All	Mean Conglomerate	Mean Non- Conglomerate	Difference
Total Sample	-0.127 (0.208)	0.962*** (0.288)	-1.770*** (0.286)	2.732*** (0.406)
Pre-Conglomerates Law	0.145 (0.279)	1.745*** (0.398)	-1.773*** (0.376)	3.518*** (0.548)
Post-Conglomerates Law	-0.447 (0.313)	0.207 (0.414)	-1.767*** (0.435)	1.974*** (0.601)
Naïve DD	-1.543* (0.813)			
Observations	4,448			

Table 5 also provides an intuitive answer to the earlier stated hypotheses. Column 1 shows the average alpha of funds, both before and after the Conglomerates Law; column 2 focuses on the respective results for conglomerate affiliated funds; column 3 reports performance results for non-affiliated funds; and column 4 tackles the difference between affiliation and non-affiliation in all periods. A naïve calculation of the effect of the Conglomerates Law is reported for the overall sample, as well as fiduciary and broker managed funds in panels B and C respectively.

Panel A shows the results for all mutual funds in the sample. When considering the entire study period, the average alpha is -0.13 percentage points (pp). Alphas of affiliated funds are on average +0.86 pp larger than those of non-affiliated ones.

The difference is significant at the 1% level. The alphas calculated for the period before the Conglomerate Law average -0.01 pp, while those calculated after the Conglomerate Law average -0.26 pp. Only the former is statistically significant at the 10% confidence level.

The alphas of conglomerate-affiliated funds show a negative trend between the pre and post Conglomerate Law period, falling from 0.47 pp to -0.07 pp, while those of non-affiliated funds remain relatively stable, going from -0.69 pp to -0.64 pp. Using these results, as well as equation number 2, the simplest calculation of a DD estimate shows an average effect of -0.596 pp on the alphas of conglomerate-affiliated funds (ATT). However, this preliminary result does not control for other observables and is statistically insignificant.

Panel B summarizes the same results for the group of funds managed by fiduciary companies. Column 1 shows that the aggregate average alpha equal to the one of the total sample. The total fiduciary average alpha is -0.13 pp, the pre-Conglomerates Law is -0.065 pp and the post-Conglomerates Law is -0.189 pp. Noticeably, the alphas after the Conglomerates Law are on average more negative than before its implementation. The difference between conglomerate-affiliated and non-affiliated funds for the entire study period is -0.365 pp. This result is statistically significant at the 5% confidence level.

Columns 2 and 3 of Panel B, show that the alphas of conglomerate-affiliated firms remained relatively stable through time. However, the non-affiliated alphas decreased from 0.33 in the period before the Conglomerates Law to -0.08 in the period after it. Consequently, the naïve calculation of the DD estimator yields an average effect of +0.456 pp on the alphas of conglomerate-affiliated funds. The result is not statistically significant.

Panel C reports the results of funds managed by broker companies. The total broker average alpha is -0.13 pp, the pre-Conglomerates Law average is 0.15 pp, and the post-Conglomerates Law average is -0.34 pp. Alphas of affiliated funds are on average 2.73 pp larger than those of non-affiliated ones. The difference is significant at the 1% level. These results suggest a dissimilar dynamic in broker companies than the one seen in fiduciary companies. Not only the difference has a different sign, but it also has different magnitude.

Columns 2 and 3 of Panel C show that the trend of alphas before and after the Conglomerates Law is negative for conglomerate-affiliated funds. They go from

an average of 1.75 pp before the Law to 0.207 pp after it. Meanwhile, non-affiliated average alpha remains fairly stable at around -1.77 pp. This leads to a naïve DD average effect estimation of -1.543 pp in conglomerate-affiliated broker-managed funds. This result is statistically significant at the 10% confidence level.

These preliminary results point towards important insights. The overall effect on performance of conglomerate affiliation is positive for funds. However, when examining closely, the broker-managed funds gain a larger benefit, favoring the informational advantage hypothesis, while fiduciary managed ones have negative affiliation effect, favoring the conflict of interest hypothesis. These results do not point to a significant effect of the Conglomerates Law on the overall performance of pooled funds. However, fiduciary-managed funds' performance potentially benefited from the Conglomerates Law while broker-managed funds' performance seemed negatively affected. Nevertheless, controlling for covariates is needed to properly disentangle these effects. This estimation does not provide sufficient evidence to draw conclusions, since it cannot be stated that the parallel trends assumption holds. Other explanatory variables must be included in the estimations, as they can also explain the variance in performance.

6.2. Regression Analysis: Conglomerate Affiliation

The performance of a mutual fund depends on more variables than conglomerate affiliation. The fund's characteristics are essential to understand its performance, and it is necessary to control for them to isolate the affiliation effect. The main control variables and their relationship with the fund's performance are examined below, followed by a scrutiny of the conglomerate-affiliation effect. This exercise lays the foundation for the subsequent evaluation of the effects of the Conglomerates Law (*H2* and *H3*).

Table 6 presents panel regressions with the explanatory variables for the performance of mutual funds. The dependent variable is performance measured by Jensen's Alpha derived from the multivariate model. Other performance measurements are reported in the robustness section. Following Ferreira et al. (2013), the explanatory variables include fund characteristics, fund manager type, time fixed effects, and fund category fixed effects. Columns 1 and 2 present the estimates for all funds in the sample, and column 3 focuses solely on affiliated

funds. Following the same pattern, columns 4-6 present estimates for fiduciary-managed funds, and columns 7-9 for broker-managed funds.

a) Controls:

Firstly, the size of the mutual fund can have various effects on its performance. Ferreira et al. (2013) emphasize that larger funds can: i) disperse fixed costs and have larger research resources; ii) take advantage of investment opportunities unavailable to smaller funds; and iii) use their larger positions and trading volumes to negotiate better spreads and lower commissions with brokers. However, while a small fund may concentrate on a few investment opportunities, a larger fund must continually seek new investment opportunities, potentially diluting the managers' ability (Ferreira et al., 2013). In this regard, smaller funds may be more active, and larger ones may follow closely market benchmarks.

For this sample of Colombian funds, the AUM (Assets Under Management) are positively correlated with fund performance. Column 2 shows that a 1% increase in fund size is associated an average increase in alpha of 0.21 basis points (bp), a significant coefficient at the 10% level. This result is larger in the case of fiduciary-managed funds (column 5), where the effect on the alpha is 0.31 bp and significant at the 1% level, while in the case of broker-managed funds (column 8), the effect is at 0.53 bp and is not significant. This difference can be attributed to the fact that fiduciary-managed funds are, on average, larger.

The number of investors in the fund can be associated with the idea that a fund with more clients has a greater diversity in its type of investors. It can be conjectured that a higher number of investors requires higher resources and investments in more liquid assets. This would reduce the horizon of investment opportunities and decrease the manager's capability to achieve better performance. At the same time, the commercial dimension of the fund would become more challenging to manage.

Table 6: Performance of Conglomerate-Affiliated Funds

This table presents estimates for Ordinary Least Squares (OLS) regressions for fund risk-adjusted performance. Columns 1-3 provide estimates for the overall fund sample; 4-6 use the subsample of fiduciary-managed funds; and 7-9 for the subsample of broker-managed funds. *Conglomerate Dummy* is a dichotomous variable equal to 1 if the manager of the fund is affiliated to a financial conglomerate, and 0 otherwise. Columns 1, 4, and 7 control for category and monthly time FE. Control variables are the log transformations of the Mutual Funds' AUM, number of investors, Family AUM, and Family investors. Columns 2, 5, and 8 add the set of control variables. Columns 7, 8, and 9 estimate regressions for only conglomerate-affiliated funds and add control variables of log transformation of conglomerate family size, investors, and dummy variables for local conglomerates and the presence of an insurance company within a conglomerate. Robust standard errors are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

VARIABLES	(1) All	(2) All	(3) Affiliated	(4) Fiduciaries	(5) Fiduciaries	(6) Affiliated Fiduciaries	(7) Brokers	(8) Brokers	(9) Affiliated Brokers
Conglomerate Dummy	2.164*** (0.185)	1.682*** (0.181)		0.447** (0.188)	0.426** (0.194)		4.451*** (0.373)	2.710*** (0.664)	
ln(MF AUM)		0.207* (0.115)	-0.0111 (0.136)		0.310*** (0.120)	0.233* (0.123)		0.533 (0.330)	-0.441 (0.446)
ln(MF Investors)		-0.311*** (0.119)	-0.352** (0.138)		-0.322*** (0.122)	-0.369*** (0.114)		-0.676** (0.324)	-0.397 (0.436)
ln(Family AUM)		0.323*** (0.117)	-0.318 (0.231)		-0.344*** (0.123)	-0.499* (0.266)		0.354 (0.371)	-0.391 (2.123)
ln(Family Investors)		0.0337 (0.109)	0.884*** (0.219)		0.378*** (0.123)	0.806*** (0.254)		-0.370 (0.421)	1.000 (2.103)
ln(Conglomerate Size)			-0.190 (0.234)			-0.0425 (0.234)			1.463 (2.902)
ln(Conglomerate Investors)			-0.187 (0.235)			-0.311 (0.233)			-0.457 (1.685)
Local Conglomerate Dummy			0.448 (0.302)			0.785*** (0.284)			-1.913* (1.151)
Insurance Company Affiliation			-0.941*** (0.300)			-0.551** (0.278)			
Broker Dummy	0.194 (0.218)	0.336 (0.216)	1.065*** (0.312)						
Observations	11,757	11,757	7,420	6,972	6,972	4,744	4,448	4,448	2,676
R-squared	0.036	0.052	0.089	0.041	0.046	0.059	0.087	0.091	0.138
Category FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Monthly time FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
F-stat	15.30	14.89	8.182	14.91	13.41	3.945	12.18	11.25	7.788

In line with the above, Table 6 shows that a 1% increase in the number of investors participating in a fund leads to a deterioration in the performance of -0.31 bp, a significant coefficient at the 1% level. This result is consistent for fiduciaries and about two times larger for brokers. The results are significant to the 1% level and 5% level respectively.

Ferreira et al. (2013) point out that when examining mutual fund families, larger sizes lead to economies of scale and scope, as administrative and research expenses are shared among the funds. Moreover, larger families have more experience and lower costs in launching new funds. The authors find evidence in this direction for both U.S. mutual funds and funds from other parts of the world. Colombian funds show that a 1% increase in family size leads to an average alpha increase of 0.32 bp, significant at the 1% level. However, despite the overall positive effect of fund family size on performance, the estimated coefficient for fiduciary-managed funds are negative and highly significant. A problem in the creation of economies of scale and scope within the Colombian Fiduciary institutional setting is being pointed out in this result.

Mutual fund families with more investors may generate dynamics between the funds that provide greater maneuverability to the managers. Complementary funds that offer good diversification possibilities within the same fund management company allow investors to leave their resources within the same management family in adverse market conditions. In this case, the coefficients are small and with the expected sign, but not significant for the entire sample. However, fiduciary-managed funds do exhibit a 0.38 bp increase with every 1% increase in the number of family investors. Regarding funds managed by brokers, a 1% increase in the number of investors in the fund family is associated with a 1.05 pp increase in fund performance.

Relationships are consistent when examined only for funds of conglomerate-affiliated companies. Local conglomerates, as shown in Table 1, have an average performance larger in 0.45pp in the overall sample, with a confidence level of 1%; 0.79pp larger for fiduciary managed funds, at a significance of 1%; and -1.9 for broker managed, but with a weaker significance of 10%. An insurance company affiliation to a conglomerate is associated with a -0.94 pp average reduction in alphas within the group.

Finally, column 3 shows that affiliated broker-managed funds have an average alpha 1.07 pp larger than affiliated fiduciary-managed funds with a statistical significance of 1%.

b) Conglomerate affiliation effect:

Column 2 shows that, for the total sample, affiliation with a conglomerate is associated with an average performance 1.68 pp larger per year, statistically significant at the 1% level. This evidence is statistically robust enough to reject the null hypothesis (H_0), where institutional arrangements limit the possibilities of conflicts of interest or information flows. This means that H_1 holds true, as conglomerate-affiliation disrupts funds' performance in their favor, and suggesting the presence of informational advantages. However, further research is needed to test the mechanisms involved.

For fiduciary-managed funds (column 5), conglomerate-affiliation effect is estimated at as an average alpha 0.43 pp larger per year, significant at the 5% level. Once again, evidence points towards the informational advantage hypothesis, but in a lesser extent than in the overall sample. This could imply the presence of counterbalancing mechanisms within fiduciary companies that may involve the intertwining of their fiduciary businesses and the management of mutual funds.

Finally, funds managed by brokers affiliated with a financial conglomerate show an average yearly outperformance of 2.7 pp. This result is statistically significant at the 1% level, rejecting the null hypothesis and providing evidence in favor of the informational advantage hypothesis within conglomerate-affiliated brokers.

These results provide answers to this document's first two hypotheses. The null hypothesis H_0 is rejected at a 1% level for both the overall sample and broker managed funds, and to a 5% level for fiduciary managed funds. This means that H_1 holds true, as conglomerate-affiliation disrupts funds' performance in their favor. This result is consistent with the informational advantage hypothesis, but further research is needed to draw conclusions on the precise mechanisms of performance disruption in the Colombian institutional setting.

6.3. DD: Conglomerates Law Effect

The Conglomerates Law was approved in the Colombian Congress in September 2017, regulated in 2018, and implemented in the first half of 2019. By July 2019, the transition regime was in the testing phases with the involved entities, so its impact is evaluated from that moment in time. From that instance forward, the affiliated funds had to add risk mitigation mechanisms and exposure and concentration limits within their conglomerate.

This natural experiment is a regulatory change just for the group of mutual funds managed by conglomerate-affiliated companies. The funds not associated with conglomerates, therefore, form a good control group. These events, together with the empirical evaluation framework provided by the OLS estimates of Equations 4 and 5, allow an understanding of the effects of the Conglomerates Law on the performance of mutual funds. An evaluation exercise of two periods, pre and post Law, is performed using Equation 4.

Controlling for variables discussed earlier, Table 7 shows the results of a DD (Difference-in-Differences) estimation. In addition to the conglomerate dummy variable, it includes a dummy variable for the post-Conglomerates Law period (July 2019 – December 2022) and an interaction between these two variables to evaluate the average effect on performance, measured through Jensen's Alpha, of funds managed by conglomerate affiliates. Column 1 shows the results for the total sample, column 2 for the subgroup of funds managed by fiduciaries, and column 3 for the subgroup of funds managed by brokers.

Under the assumption of parallel trends, the interaction term between the dichotomous variable indicating conglomerate-affiliation and the dichotomous variable marking the post-law period is the effect of the Conglomerates Law on the performance of affiliated funds (see Equation 4). For the overall sample of funds (column 1), an average effect of -0.54 percentage points (pp) is estimated against what the performance of these funds would have been without the Law. Nevertheless, the result is statistically insignificant, so it cannot be interpreted that the Law had an effect different than zero on performance. In other words, the measures taken in the new regulation did not mitigate informational advantages within conglomerates, as seen in the positive significant coefficient of the conglomerates dummy.

Column number 2 finds a positive effect of +0.28 pp on the performance of funds managed by affiliated fiduciaries. Despite this pointing towards conflicts of interest related distortions that the Conglomerates Law mitigates after its implementation, the coefficient is not significant.

Table 7: Conglomerates Law Effect on Performance – DD

This table presents estimates for Ordinary Least Squares (OLS) regressions for fund risk-adjusted performance with DD specification. Column 1 provides estimates for the overall sample; column 2 reports estimates for the fiduciary-managed subsample; and column 3 estimates for the broker managed subsample. Fixed effects for category, and time are introduced, as well as controls from Table 6. *Conglomerate dummy* is a dichotomous variable equal to 1 if the manager of the fund is affiliated to a financial conglomerate, and 0 otherwise. *Post-Conglomerate Law Dummy* is a dichotomous variable equal to 1 if time period is after July 2019, and 0 otherwise. The interaction of these variables is reported and is the ATT. Robust standard errors adjusted for clustering at the fund level are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

VARIABLES	(1) All	(2) Fiduciaries	(3) Brokers
Conglomerate Dummy	1.941*** (0.539)	0.274 (0.357)	2.889* (1.581)
Cong. Dummy*Post Dummy	-0.537 (0.383)	0.284 (0.212)	-1.784** (0.880)
Observations	11,757	6,972	4,448
R-squared	0.052	0.046	0.092
Controls	YES	YES	YES
Category FE	YES	YES	YES
Monthly time FE	YES	YES	YES

Finally, column 3 shows an average effect of -1.78 pp on performance of funds managed by affiliated brokers due to the Conglomerates Law. The result is statistically significant at the 5% level, and suggests that potential information flows are eliminated for this type of managers. The difference in the effect between brokers and fiduciary managers could stem from the incentives structures within these dissimilar companies, since fiduciary businesses use mutual funds for multiple purposes associated with their trust related activities. However, the specific channels should be explored in future research.

In conclusion, the performance of conglomerate-affiliated managed funds is, on average, negatively affected by the Conglomerates Law, but not at a statistically significant level. This implies that, for the overall mutual fund sample, the

Conglomerates Law does not seem to have suppressed distortions in the performance of mutual funds managed by conglomerate affiliates, thus rejecting H2.

However, in accordance with H3, the impact of the Law varies between types of managers because they perform different activities besides mutual fund management. On one hand, the effect estimated for brokers was negative and large in magnitude, at a confidence level of 5%. On the other hand, the effect for fiduciary-managed funds is positive and not significant. Further research is needed to understand the mechanisms operating within each type of institution, as their core businesses differ and interact in dissimilar ways with their managed mutual funds.

7. Robustness Tests

7.1. Parallel trends

a) Statistical Testing for parallel trends

A difference in difference model (Equation 4) can be augmented to test for the parallel trends assumption as follows:

$$\alpha_{i,t,s} = DD_{i,t,s} + \zeta_1 * \omega_i d_{t,0} t + \zeta_2 * \omega_i d_{t,1} t + \epsilon_{i,t,s} \quad (5)$$

Where $d_{t,0}$ is a variable indicating pre-treatment time periods and $d_{t,1}$ is a variable indicating post-treatment time periods; ω_i is a dichotomous variable equal to 1 if the fund belongs to the treatment group and 0 otherwise. The term ζ_1 is a coefficient for the triple interaction between these variables and the time variable, and it captures the difference in slopes between treatment and control groups before the Conglomerates Law; ζ_2 does the same after the Law (StataCorp, 2023).

If term ζ_1 is 0, then the linear trends in funds' performance are parallel before the Conglomerates Law. A simple Wald test of ζ_1 vs. 0 assesses the parallel trends assumption of the estimations presented in Table 7. Thus, the null hypothesis in this test is that linear trends are parallel before the Conglomerates Law.

Table 8: Parallel Trends Test – Pretreatment time period

This table presents the Wald test that assesses the parallel trends assumption of the estimations presented in Table 7. The null hypothesis is that linear trends are parallel before the Conglomerates Law.

	All	Fiduciary	Brokers
F-stat (1, 1)	6.94	12.40	0.42
Prob. > F	0.23	0.18	0.63

Table 8 shows the results for testing parallel trends through this method. In summary, the null hypothesis where linear trends are parallel before the Conglomerates Law cannot be rejected in any of the three regressions.

b) Anticipatory Effects of the Conglomerates Law Implementation

Equation number 4 can also be generalized to understand whether post-Conglomerates Law effects are dynamic, and whether there is an anticipatory treatment effect:

$$\alpha_{i,t,s} = DD_{i,t,s} + \sum_{t=-q}^{-1} \lambda_t D_{s,t} + \sum_{t=0}^m \delta_t D_{s,t} + \epsilon_{i,t,s} \quad (6)$$

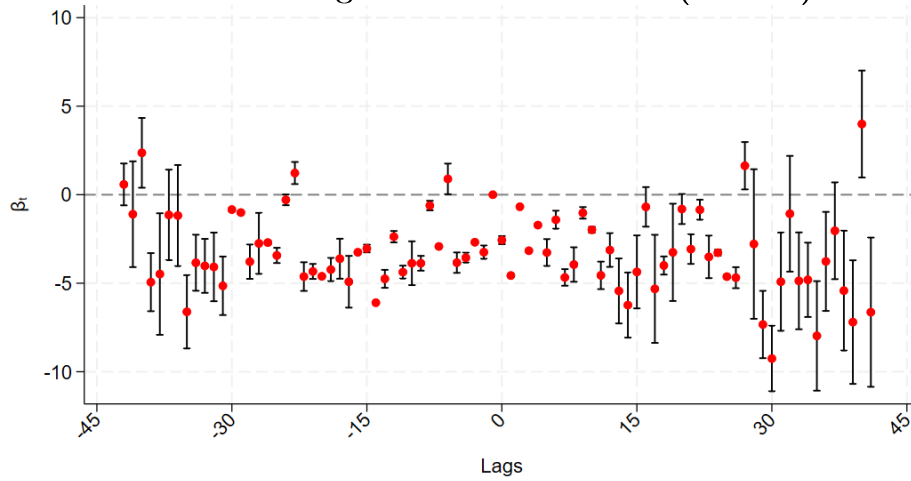
This procedure simply requires including anticipatory effects, q leads, and post treatment effects, m lags, interacted with the treatment variable $D_{s,t}$. In other words, this model tests for counterfactual treatment-time indicators, and assesses the effect if treatment occurred in other moment in time.

Figures 3, 4, and 5 present the results of the estimations. They illustrate the monthly coefficients and their 95% confidence intervals for the performance effects before and after the Conglomerates Law implementation in July 2019. These are a good visual approximation to assess the parallel trends assumption.

Figure 3 shows three aspects of the effects on treated fund performance. First, for periods before the September 2017, before the Law was approved, no discernible effect of the anticipation of new regulation is observed. Second, once the Law was approved at the end of the third quarter of 2017, even without being regulated, significant negative anticipatory effects are estimated for the performance of conglomerate-affiliated funds. Finally, after the implementation of the Conglomerates Law, the coefficients continue to be negative for the following two years. The confidence intervals turn large after this period, showing a potential dilution of the effects in time.

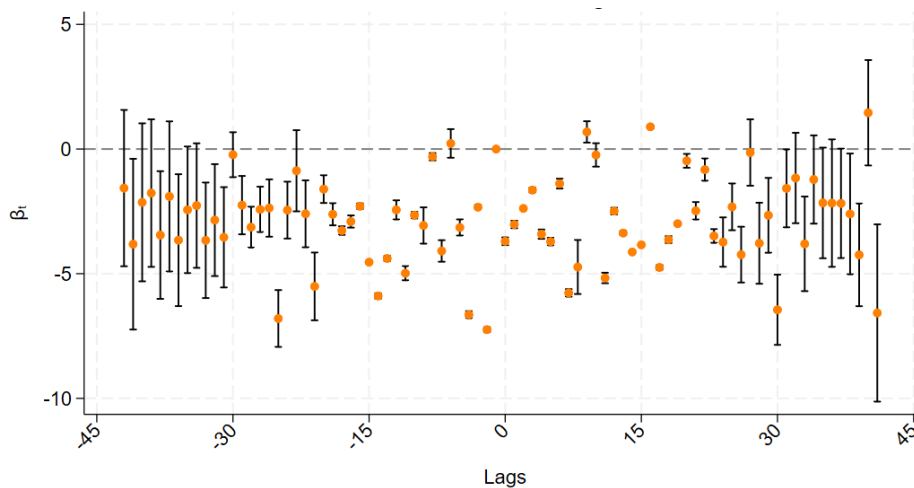
Figure 4 reports volatile and significant negative effects within fiduciary affiliated funds in anticipation of the law being formally regulated. The results, as with the overall sample, are significant after the Conglomerates Law was approved in congress and remain so for about two years after its full roll out in July 2019. These coefficients, contrary to the estimated effect in Table 7, show evidence for a potential negative effect on performance.

Figure 3: Estimates of Conglomerates Law Effect (95% CI) – All sample



Source: Own Calculations with SFC open data.

Figure 4: Estimates of Conglomerates Law Effect (95% CI) – Fiduciary managed



Source: Own Calculations with SFC open data.

Figure 5: Estimates of Conglomerates Law Effect (95% CI) – Broker Managed

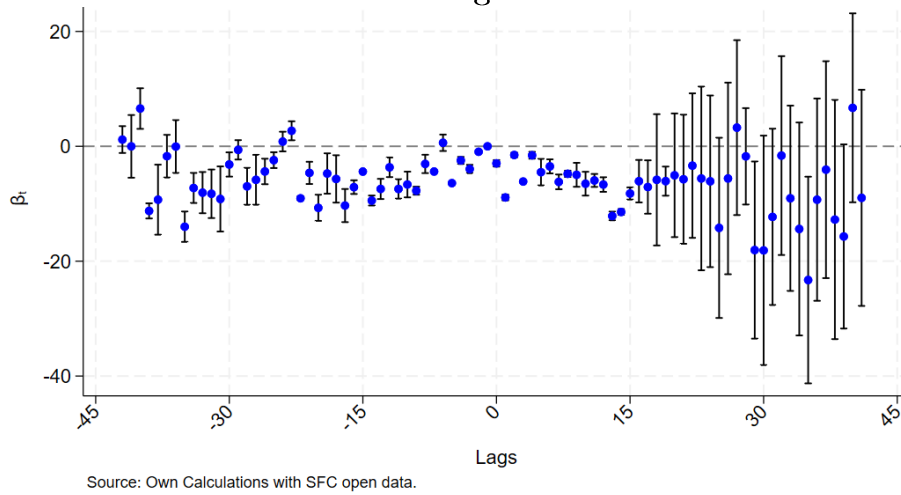


Figure 5, which illustrates the results of the estimation for the subgroup of broker-managed funds, reports trends like those observed in Figure 3. However, there are some negative significant effects on fund performance before the approval of the Conglomerates Law at the end of the third quarter of 2017. These coefficients are highly significant after the approval of the Law and keep being so after its implementation. The effects turn statistically insignificant two years after.

This generalized exercise for the three main regressions illustrates that the timing between the Law’s framework approval and its roll out was important for funds’ performance. This means that much of the specific regulations could have been anticipated by managers, that adjusted behaviors well before time. However, understanding the proper mechanisms that are in play is important to have a more complete picture of the events. Further research must be conducted in this direction.

7.2. Clustering Standard Errors

The standard errors in Table 7 are clustered at the fund level. However, the treatment provided by the Conglomerates Law applies at a management company level. This means that each conglomerate-affiliated company has to assess its exposure and concentration limits, conflicts of interest, related parties, corporate governance, internal control mechanisms, and information disclosure within its conglomerate. Table 11 in the appendix reports standard errors when clustering at the fund family level. The overall results are virtually unchanged from the ones

presented in the main results. Table 12 in the appendix clusters at the treatment level, and, as expected, these results underestimate the standard errors.

7.3. Other Performance Measures

The presented results are robust to other measurements of mutual fund performance. Every result was estimated for two other performance measurements: a simple Jensen's alpha based on the CAPM model and the simple difference between the excess returns of a single portfolio and the market benchmark. On one hand, the alphas from the CAPM model yield similar results to the original estimation. The hypothetical mutual fund market portfolio is a good benchmark for this Colombian industry. On the other hand, the simple difference between the excess returns of this market benchmark and individual portfolios did not yield significant results. However, this simplified splitting of systematic and idiosyncratic explained performance fails to reject the null hypothesis and does not yield contradictory results. Tables 13 and 14 in the appendix show the estimated DD for these performance measures.

8. Conclusion

Colombian mutual funds' performance is positively affected when the management company is affiliated with a financial conglomerate. Conglomerate-affiliated funds outperform unaffiliated funds by 1.68 percentage points (pp) per year during the 2016 to 2022 period. Outperformance is larger in broker-managed affiliated funds than in fiduciary-managed affiliated funds. This result is consistent with the informational advantages hypothesis, as information flows between conglomerate institutions and fund managers may permeate investment decisions.

The 2017 Conglomerates Law was fully regulated by mid-2019 and can be considered a natural experiment, as conglomerate-affiliated mutual funds were simultaneously subject to a regulatory change. The new regulation established prudential requirements regarding capital, exposure and concentration limits, conflicts of interest, related parties, corporate governance, internal control mechanisms, and information disclosure. The performance of conglomerate-

affiliated managed funds is, on average, estimated to be negatively affected by 0.54 pp per year. However, these results are not statistically significant.

The impact of the Law varies between broker managers and fiduciary managers. On one hand, the effect estimated for broker-managed affiliated funds is -1.78 pp, and statistically significant. On the other hand, the effect for fiduciary-managed affiliated funds is +0.28 pp, but not significant. More research is needed to understand the mechanisms operating within each type of institution, as their core businesses interact in dissimilar ways with their managed mutual funds. Fiduciary companies intertwine their mutual funds with their fiduciary business, which creates a different incentive structure for their fund managing activities. This explains the different effects of affiliation from the one observed in broker-managed affiliated funds and the different reactions to new regulations.

Mechanisms between Colombian mutual funds and their conglomerates that affect funds' performance are yet to be studied. Golez & Marin (2015), Gil-Bazo et al. (2020), Ferreira et al. (2018), and Massa & Rehman (2008) propose and have found evidence for multiple mechanisms in other institutional settings, where funds: i) support stock prices, especially before anticipated price drops or after unanticipated devaluations; ii) demanding debt securities, being particularly useful in times of financial uncertainty; iii) systematically overweight stocks of lending clients, which helps parent banks strengthen relationships with borrower firms. Researchers are yet to explore novel channels, like how funds may take advantage of their relationships within a conglomerate to manage their cash equivalents more efficiently. Further studying these mechanisms should allow for better regulation and systemic risk mitigation within the working framework provided by the Conglomerates Law.

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10. Appendix

Table 9: Mutual Funds Summary Statistics – Fiduciary-Managed

Panels A, B, and C present the mean, standard deviation, 5th percentile, median, 95th percentile, number of funds and number of observations for each variable in the subsample of fiduciary-managed Colombian mutual funds over the 2016 and 2022 period.

<i>Panel A: Fiduciary Sample</i>					
	(1)	(2)	(3)	(4)	(5)
	Mean	St. Dev.	5th Pct.	Median	95th Pct.
MF AUM (Billion COP)	698.81	1,606.87	3.45	130.78	3,206.96
MF AUM Share	0.01	0.02	0.00	0.00	0.04
MF Average Investment	0.87	3.95	0.01	0.11	2.50
MF Investors	19,912.20	77,982.52	26.00	798.00	80,362.00
MF Investor Share	0.01	0.04	0.00	0.00	0.04
MF Family AUM (Billion COP)	3,938.35	4,629.18	86.67	2,302.65	15,631.55
MF Family AUM Share	0.05	0.06	0.00	0.03	0.21
MF Family Investors	124,141.81	267,872.15	444.00	12,690.00	964,146.00
MF Family Investors Share	0.07	0.14	0.00	0.01	0.52
Conglomerate Dummy	0.68	0.47	0.00	1.00	1.00
Observations	6,972				
<i>Performance</i>					
Alpha (Multivariate Model)	-0.13	6.79	-8.36	-0.16	6.13
Alpha (CAPM)	0.4	10.97	-9	-0.24	10.72
Diff. Benchmark Performance	0.35	11.46	-11.36	-0.22	12.11
Funds	91				
Observations	6,972				

<i>Panel B: Fiduciary Conglomerate-Affiliated</i>					
	(1)	(2)	(3)	(4)	(5)
	Mean	St. Dev.	5th Pct.	Median	95th Pct.
MF AUM (Billion COP)	769.58	1,779.61	4.68	218.22	3,163.48
MF AUM Share	0.01	0.02	0.00	0.00	0.04
MF Average Investment	0.89	4.57	0.01	0.09	2.18
MF Investors	24,953.68	89,807.68	60.00	1,445.00	88,955.00
MF Investor Share	0.01	0.05	0.00	0.00	0.04
MF Family AUM (Billion COP)	4,527.41	5,022.45	345.87	2,959.02	16,891.22
MF Family AUM Share	0.06	0.07	0.01	0.04	0.23
MF Family Investors	154,868.89	312,915.00	2,340.00	15,450.00	1,078,079.00
MF Family Investors Share	0.08	0.17	0.00	0.01	0.53
AUM (Conglomerate)	9,212.77	7,111.16	345.87	11,163.95	21,649.18
Conglomerate AUM Share	0.12	0.09	0.01	0.14	0.29
Conglomerate Investors	194,018.55	316,779.93	3,622.00	97,040.00	1,123,611.00
Conglomerate Investor Share	0.10	0.17	0.00	0.06	0.56

(Continued)

Conglomerate-Affiliated Mutual Funds' Performance

Table 9 - Continued

Panel B: (continued)

<i>Performance</i>					
Alpha (Multivariate Model)	-0.25	6.79	-9.51	-0.18	6.97
Alpha (CAPM)	0.51	11.50	-10.70	-0.23	14.20
Diff. Benchmark Performance	0.44	12.09	-13.35	-0.20	15.21
Funds	61				
Observations	4,744				

Panel C: Fiduciary Non-Conglomerate

	(1)	(2)	(3)	(4)	(5)
	Mean	St. Dev.	5th Pct.	Median	95th Pct.
MF AUM (Billion COP)	548.13	1,141.89	2.52	57.57	3,293.20
MF AUM Share	0.01	0.01	0.00	0.00	0.04
MF Average Investment	0.84	2.11	0.02	0.19	5.99
MF Investors	9,177.55	41,095.02	12.00	225.00	12,999.00
MF Investor Share	0.01	0.02	0.00	0.00	0.01
MF Family AUM (Billion COP)	2,684.08	3,322.94	67.88	717.49	9,312.56
MF Family AUM Share	0.03	0.04	0.00	0.01	0.10
MF Family Investors	58,715.74	98,886.30	388.00	3,039.00	281,587.00
MF Family Investors Share	0.03	0.05	0.00	0.00	0.16
<i>Performance</i>					
Alpha (Multivariate Model)	0.12	6.8	-4.2	-0.11	4.49
Alpha (CAPM)	0.16	9.74	-4.91	-0.25	4.58
Diff. Benchmark Performance	0.17	9.99	-5.44	-0.24	5.64
Funds	30				
Observations	2,228				

Table 10: Mutual Funds Summary Statistics – Broker-Managed

Panels A, B, and C present the mean, standard deviation, 5th percentile, median, 95th percentile, number of funds and number of observations for each variable in the subsample of broker-managed Colombian mutual funds over the 2016 and 2022 period.

<i>Panel A: Broker Sample</i>					
	(1)	(2)	(3)	(4)	(5)
	Mean	St. Dev	5th Pct.	Median	95th Pct.
MF AUM (Billion COP)	313.79	654.48	2.13	37.80	1,984.59
MF AUM Share	0.00	0.01	0.00	0.00	0.03
MF Average Investment	0.40	1.45	0.01	0.08	1.14
MF Investors	2,985.33	9,646.69	11.00	600.00	10,994.00
MF Investor Share	0.00	0.00	0.00	0.00	0.01
MF Family AUM (Billion COP)	2,661.82	2,246.39	112.84	2,490.47	6,660.10
MF Family AUM Share	0.03	0.03	0.00	0.04	0.08
MF Family Investors	19,972.41	16,915.25	3,659.00	12,903.00	46,552.00
MF Family Investors Share	0.01	0.01	0.00	0.01	0.02
Conglomerate Dummy	0.60	0.49	0.00	1.00	1.00
<i>Performance</i>					
Alpha (Multivariate Model)	-0.13	13.89	-20.92	-0.02	20.94
Alpha (CAPM)	1.82	20.14	-31.64	0.20	43.06
Diff. Benchmark Performance	1.89	20.75	-32.85	0.32	42.99
Funds	63				
Observations	4,448				
<i>Panel B: Broker Conglomerate-Affiliated</i>					
	(1)	(2)	(3)	(4)	(5)
	Mean	St. Dev	5th Pct.	Median	95th Pct.
MF AUM (Billion COP)	484.67	793.69	4.02	78.96	2,473.71
MF AUM Share	0.01	0.01	0.00	0.00	0.03
MF Average Investment	0.64	1.83	0.03	0.16	3.83
MF Investors	2,886.82	5,608.57	2.00	792.50	14,815.00
MF Investor Share	0.00	0.00	0.00	0.00	0.01
MF Family AUM (Billion COP)	4,089.85	1,752.23	1,260.93	4,108.31	7,233.80
MF Family AUM Share	0.05	0.02	0.03	0.05	0.08
MF Family Investors	21,754.86	13,426.49	9,685.00	14,434.00	47,609.00
MF Family Investors Share	0.01	0.01	0.00	0.01	0.03
AUM (Conglomerate)	7,691.61	6,285.71	1,309.72	5,060.33	22,141.85
Conglomerate AUM Share	0.10	0.08	0.03	0.07	0.29
Conglomerate Investors	194,818.82	351,087.02	9,685.00	39,081.00	1,138,624.00
Conglomerate Investor Share	0.11	0.19	0.00	0.02	0.57

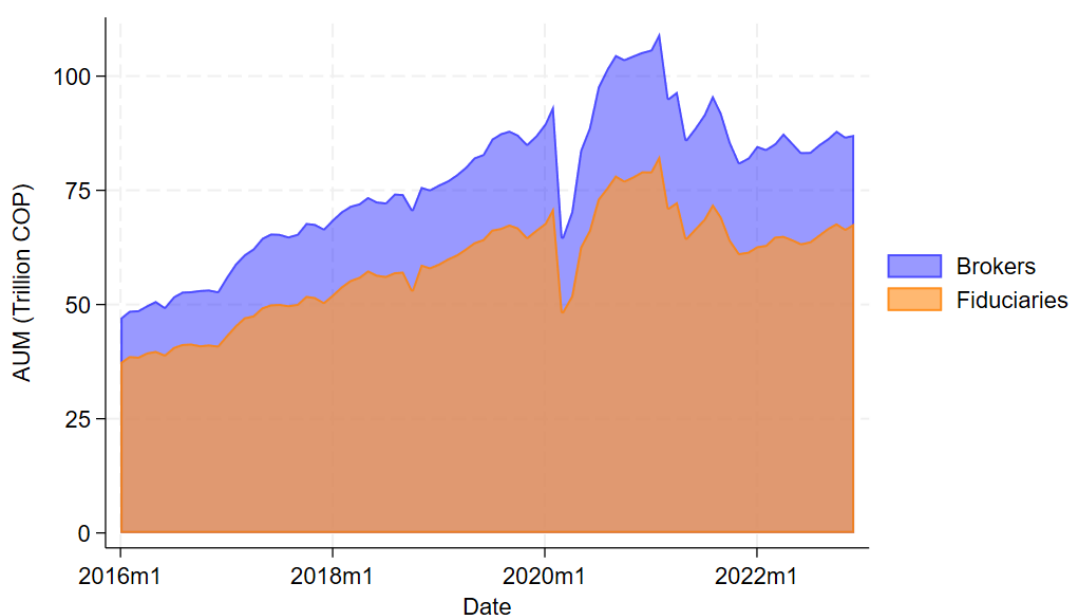
(Continued)

Conglomerate-Affiliated Mutual Funds' Performance

<i>Panel B: (Continued)</i>					
<i>Performance</i>					
Alpha (Multivariate Model)	0.96	14.9	-22.49	0.43	24.61
Alpha (CAPM)	3.55	21.26	-30.74	0.87	47.72
Diff. Benchmark Performance	3.46	21.97	-33.45	0.86	49.07
Funds	35				
Observations	2,676				

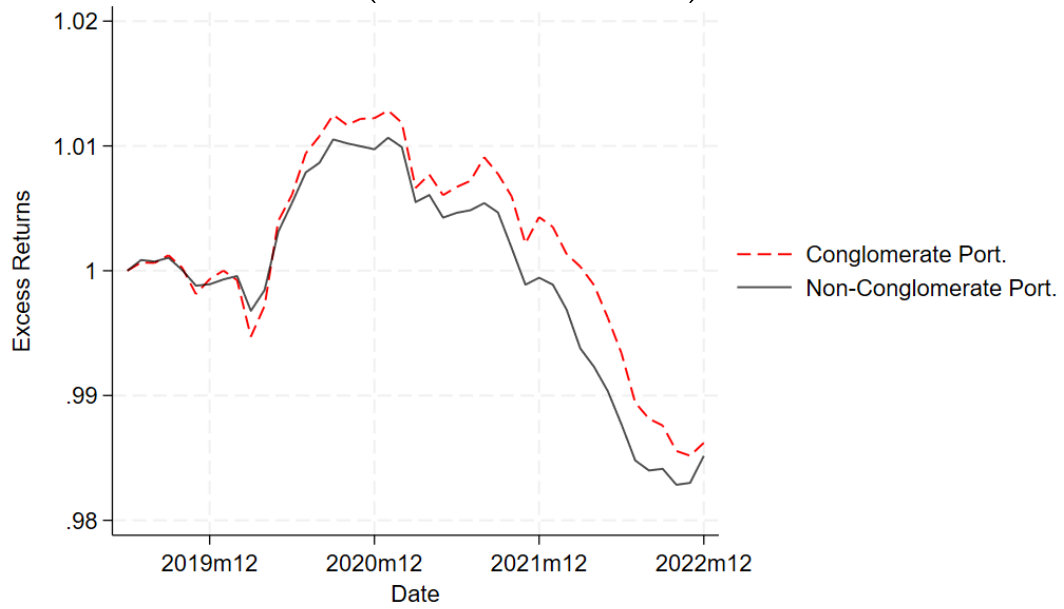
<i>Panel C: Broker Non-Conglomerate</i>					
	(1)	(2)	(3)	(4)	(5)
	Mean	St. Dev	5th Pct.	Median	95th Pct.
MF AUM (Billion COP)	55.75	115.38	1.35	16.20	275.50
MF AUM Share	0.00	0.00	0.00	0.00	0.00
MF Average Investment	0.04	0.03	0.00	0.03	0.10
MF Investors	3,134.11	13,642.65	60.00	478.00	9,743.00
MF Investor Share	0.00	0.01	0.00	0.00	0.01
MF Family AUM (Billion COP)	505.27	546.85	108.12	162.85	1,536.78
MF Family AUM Share	0.01	0.01	0.00	0.00	0.02
MF Family Investors	17,280.63	20,835.67	3,413.00	11,859.00	37,118.00
MF Family Investors Share	0.01	0.01	0.00	0.01	0.02
<i>Performance</i>					
Alpha (Multivariate Model)	-1.77	12.02	-18.70	-0.76	11.47
Alpha (CAPM)	-0.78	18.01	-32.62	-0.36	29.47
Diff. Benchmark Performance	-0.50	18.51	-32.39	-0.33	31.68
Funds	28				
Observations	1,772				

Figure 6: Mutual Funds Industry AUM



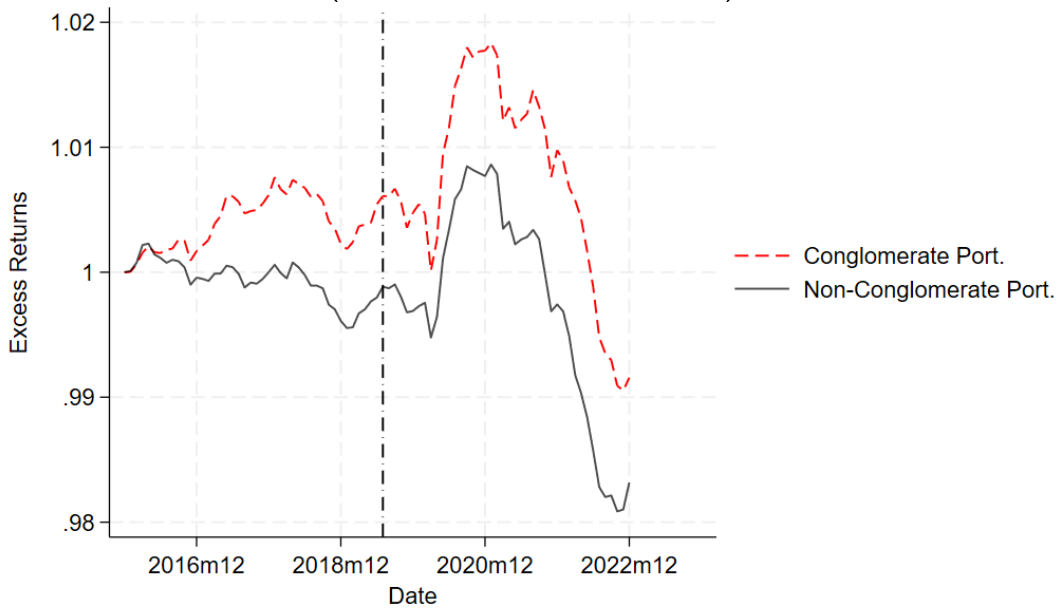
Source: Own Calculations with SFC open data.

Figure 7: Portfolio Performance - Conglomerate vs. Non-conglomerate
(Index 1 = June 2019)



Source: Own Calculations with SFC open data.

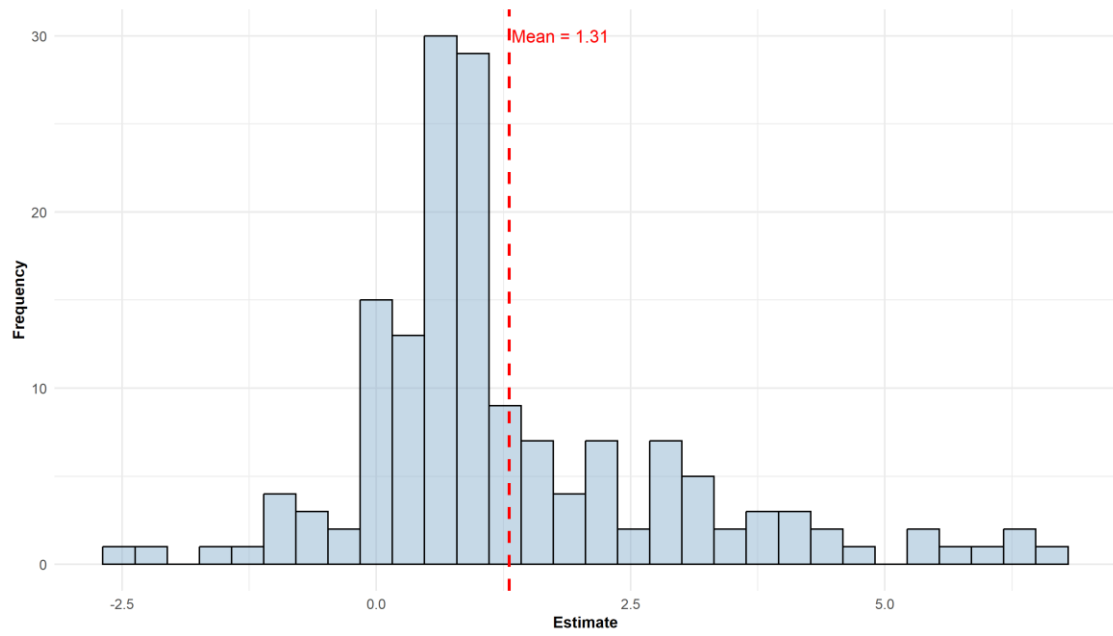
Figure 8: Portfolio Performance - Conglomerate vs. Non-conglomerate
(Index 1 = December 2015)



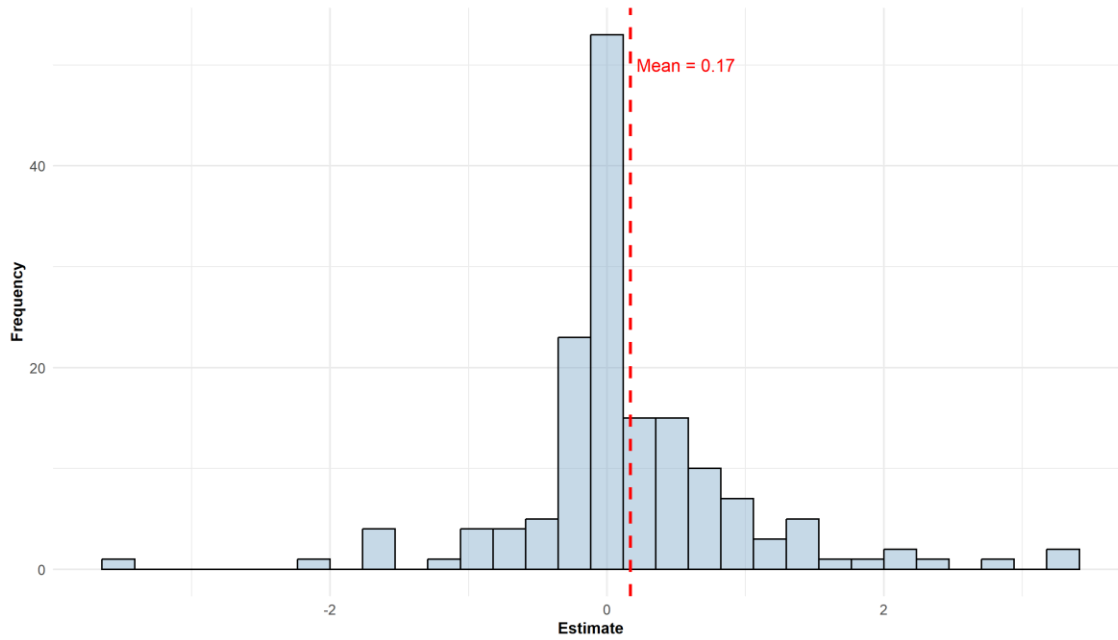
Source: Own Calculations with SFC open data.

Figure 8: Mutual Funds Estimated Betas

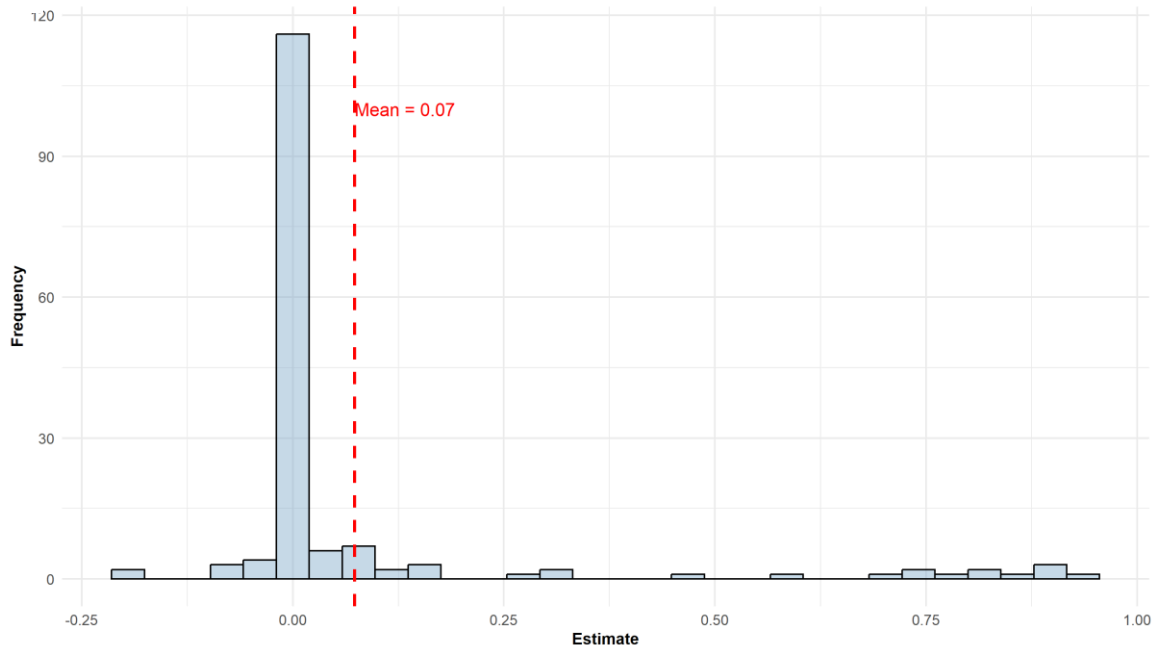
(A) Mutual Fund Market Coefficient



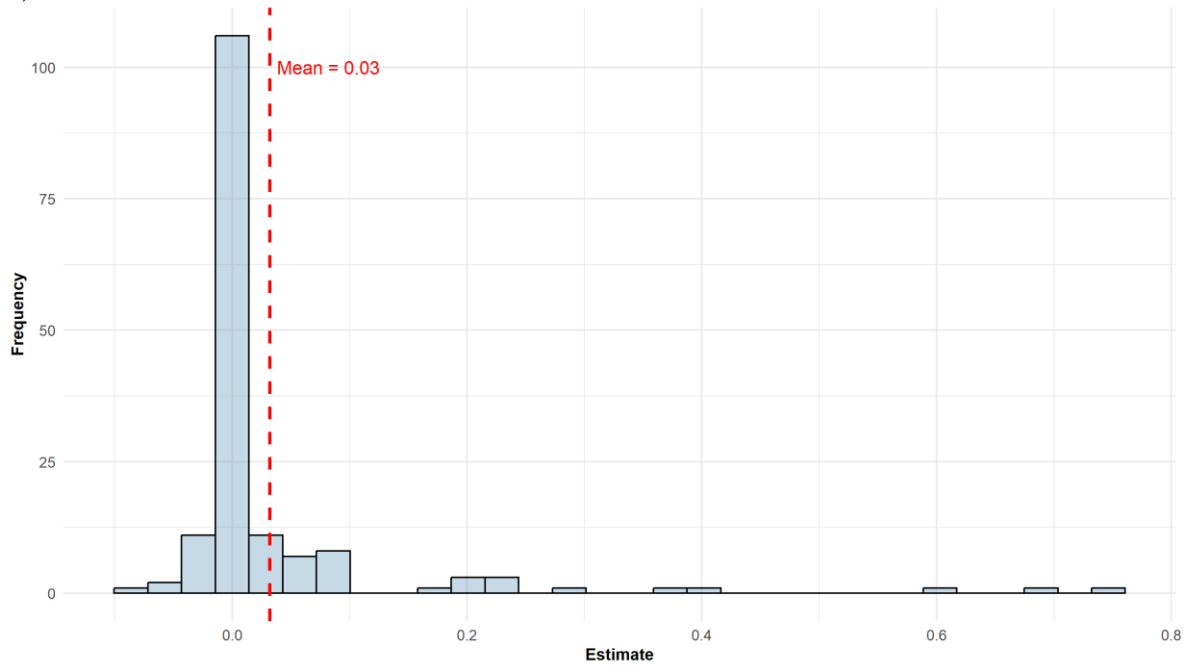
(B) Yield Curve Slope Coefficient



(C) Colcap Coefficient



(D) MSCI World Coefficient



**Table 11: Conglomerates Law Effect on Performance – DD: Family
Clustered Standard Errors**

This table presents estimates for Ordinary Least Squares (OLS) regressions for fund risk-adjusted performance with DD specification. Column 1 provides estimates for the overall sample; column 2 reports estimates for the fiduciary-managed subsample; and column 3 estimates for the broker managed subsample. Fixed effects for category, and time are introduced, as well as controls from Table 6. *Conglomerate dummy* is a dichotomous variable equal to 1 if the manager of the fund is affiliated to a financial conglomerate, and 0 otherwise. Post-Conglomerate Law Dummy is a dichotomous variable equal to 1 if time period is after July 2019, and 0 other wise. The interaction of these variables is reported as well as the ATT. Robust standard errors adjusted for clustering at the family level are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

VARIABLES	(1) All	(2) Fiduciaries	(3) Brokers
Conglomerate Dummy	1.941*** (0.583)	0.274 (0.195)	2.889** (1.260)
Cong. Dummy*Post Dummy	-0.537 (0.378)	0.284 (0.190)	-1.784** (0.745)
Observations	11,757	6,972	4,448
R-squared	0.052	0.046	0.092
Controls	YES	YES	YES
Category FE	YES	YES	YES
Monthly time FE	YES	YES	YES

**Table 12: Conglomerates Law Effect on Performance – DD: Treatment
Clustered Standard Errors**

This table presents estimates for Ordinary Least Squares (OLS) regressions for fund risk-adjusted performance with DD specification. Column 1 provides estimates for the overall sample; column 2 reports estimates for the fiduciary-managed subsample; and column 3 estimates for the broker managed subsample. Fixed effects for category, and time are introduced, as well as controls from Table 6. *Conglomerate dummy* is a dichotomous variable equal to 1 if the manager of the fund is affiliated to a financial conglomerate, and 0 otherwise. Post-Conglomerate Law Dummy is a dichotomous variable equal to 1 if time period is after July 2019, and 0 other wise. The interaction of these variables is reported as well as the ATT. Robust standard errors adjusted for clustering at the treatment level are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

VARIABLES	(1) All	(2) Fiduciaries	(3) Brokers
Conglomerate Dummy	1.941 (0.651)	0.274* (0.0404)	2.889 (0.939)
Cong. Dummy*Post Dummy	-0.537*** (0.00391)	0.284** (0.0152)	-1.784 (0.806)
Observations	11,757	6,972	4,448
R-squared	0.052	0.046	0.092
Controls	YES	YES	YES
Category FE	YES	YES	YES
Monthly time FE	YES	YES	YES

Table 13: Conglomerates Law Effect on Performance – DD: CAPM derived Jensen’s Alpha

This table presents estimates for Ordinary Least Squares (OLS) regressions for fund CAPM risk-adjusted performance with DD specification. Column 1 provides estimates for the overall sample; column 2 reports estimates for the fiduciary-managed subsample; and column 3 estimates for the broker managed subsample. Fixed effects for category, and time are introduced, as well as controls from Table 6. *Conglomerate dummy* is a dichotomous variable equal to 1 if the manager of the fund is affiliated to a financial conglomerate, and 0 otherwise. Post-Conglomerate Law Dummy is a dichotomous variable equal to 1 if time period is after July 2019, and 0 other wise. The interaction of these variables is the ATT. Robust standard errors adjusted for clustering at the fund level are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

VARIABLES	(1) All	(2) Fiduciaries	(3) Brokers
Conglomerate Dummy	1.410*** (0.473)	0.383 (0.321)	2.706** (1.266)
Cong. Dummy*Post Dummy	0.582 (0.508)	0.457 (0.370)	1.420 (1.388)
Observations	11,757	6,972	4,448
R-squared	0.068	0.038	0.128
Controls	YES	YES	YES
Category FE	YES	YES	YES
Monthly time FE	YES	YES	YES

Table 14: Conglomerates Law Effect on Performance – DD: Simple Difference with Benchmark Market Portfolio

This table presents estimates for Ordinary Least Squares (OLS) regressions for fund simple difference in excess returns vs. benchmark market portfolio. Column 1 provides estimates for the overall sample; column 2 reports estimates for the fiduciary-managed subsample; and column 3 estimates for the broker managed subsample. Fixed effects for category, and time are introduced, as well as controls from Table 6. *Conglomerate dummy* is a dichotomous variable equal to 1 if the manager of the fund is affiliated to a financial conglomerate, and 0 otherwise. Post-Conglomerate Law Dummy is a dichotomous variable equal to 1 if time period is after July 2019, and 0 other wise. The interaction of these variables is the ATT. Robust standard errors adjusted for clustering at the fund level are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

VARIABLES	(1) All	(2) Fiduciaries	(3) Brokers
Conglomerate Dummy	1.430*** (0.483)	0.456 (0.339)	2.335* (1.287)
Cong. Dummy*Post Dummy	0.193 (0.522)	0.186 (0.434)	0.718 (1.363)
Observations	11,757	6,972	4,448
R-squared	0.071	0.043	0.132
Controls	YES	YES	YES
Category FE	YES	YES	YES
Monthly time FE	YES	YES	YES