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The ecuadorian securities market : a sociological account of an apparent failure

Andrés Chiriboga

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ECOLE DOCTORALE DE SCIENCES PO
Programme doctoral en Sociologie

The Max Planck Sciences Po Center on Coping with Instability in Market
Societies (MaxPo) et le Centre de recherche sur les inégalités sociales (CRIS)

Doctorat en Sociologie

**The Ecuadorian Securities Market:
a sociological account of an apparent failure**

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Thesis supervised by Olivier Godechot, Directeur de recherche CNRS, Sciences Po

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Abstract

This thesis explains the peculiar evolution of Ecuador's securities market—an inefficient but functional market—by examining how a set of business and regional ties influence economic transactions and their outcomes. The structural embeddedness approach is used as a starting point and is advanced by showing that different social devices that have been largely treated separately, such as regionalism and power imbalances, can be studied as coexisting firm-to-firm ties. A mixed-methods approach is taken to explain how brokerage hiring and trading strategies depend on the existence of multiple social ties. Some of these ties emerge from the country's political economy and others show the way market actors cope with power imbalances or strengthen their advantageous positions. The thesis also explores how brokerage firms deploy these strategies differently and combine them in the long run. By examining the economic outcomes of socially based trading strategies, it shows that most of them increase profits and performance for brokerage firms but hinder the overall development of the market. The complex social life of this type of incumbent market may not contribute to its global development, but it is not detrimental to particular profits and does not deviate from the effects and consequences of financialization in terms of the concentration of capital and the deepening of inequalities. Beyond the findings for this case of a national securities market, this research challenges and advances previous views on the embeddedness of financial markets and also criticizes the specialized economic literature that has been too quick to judge incumbent markets of this type as failures.

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Chapter 1

Introduction

Ecuadorians are rare and unique beings: they sleep peacefully in the middle of creaking volcanoes, live poor amidst of incomparable wealth and rejoice with sad music.

Alexander Von Humboldt, Reise
in die Äquinoktial-Gegenden des
Neuen Kontinents (1802)

The exchange is the monopoly of the rich, and nothing is more foolish than to disguise this fact by admitting propertyless, and therefore powerless, speculators.

Max Weber, Die Börse (1894)

1.1 Objectives and questions of this thesis

Finance occupies an undisputed role in contemporary societies. When we think of its sharp rise, our attention is primarily directed to the large financial centers

of North America and Europe and more recently, to the fast-growing markets in Asia and to offshore jurisdictions. However, finance has penetrated everywhere and takes on different forms depending on the environments in which it evolves. Over a decade ago, the 2007-2009 crisis increased an existing interest of sociology and other disciplines in finance that had been mainly addressed through the lenses of economics and its fundamentals (Carruthers & Kim, 2011). Key contributions to a more comprehensive understanding of financial markets, their penetration and consequences were produced by researchers looking at how economic action is socially embedded.¹ Some of the most relevant of these researchers' works have been featured in compilations that highlight the contribution of sociology and other disciplines to the scholarship on finance (Knorr Cetina & Preda, 2012) and challenge their consequences and contradictions (Lounsbury & Hirsch, 2010).

Despite the rise of financial markets in developed economies quickly became a core subject in economic sociology, little attention is still given to cases that depart from the patterns seen in Western contexts. In fact, the globalization of finance has implied the harboring and spawning of multiple local and regional varieties that have been overlooked (Knorr Cetina & Preda, 2012). These varieties of finance can display some of the features that are found in well-known (and well-studied) markets but include particular characteristics of the environments in which they emerge and develop. Addressed by economists with the same standards used to explain the evolution of large financial centers, many non-traditional markets have been quickly labeled as failures. This is the case of Latin American securities markets, whose underdevelopment is highlighted by the existing literature on capital markets (De la Torre & Schmukler, 2006). Conversely, sociologists have pointed out the relevance of these apparently underdeveloped markets and the potential value of studying them (Fligstein, 1996; Granovetter, 2010) including cases from the Latin American

¹Since the 1980s, economic sociology has importantly contributed to our general understanding of markets by explaining that economic action is socially embedded. In their diversity, these works show that socially driven action is a way of coping with the inherent problems of uncertainty and opportunism and it does not necessarily constitute the barrier to efficiency and economic development that traditional economic theory has claimed (Beckert, 1996). In fact, empirical research in this tradition has shown that social ties and other devices can facilitate different paths to market efficiency.

region. In fact, these seemingly failed markets play key roles within their societies, demonstrate that there is more than one type of financial development, and have their own place in the larger picture of contemporary capitalism. Nonetheless, very few efforts have been made to study them from a sociological perspective² and we still know very little about the rich social life of these *incumbent* markets where the status quo of local players seems to prevail over accelerated financialization.

This thesis takes on this yet-to-be-explored terrain and studies the case of Ecuador’s securities market—an inefficient thought functional market—that is deeply embedded into a unique local context but shares features from markets in other developing and developed economies. In order to problematize its (under?)development, this market is examined in terms of its social relationships, the way they shape economic decisions, and the outcomes they yield.³ Specialized literature on capital markets in Latin America labels Ecuador’s local securities market⁴ as another unsuccessful case due to its lack of liquidity, little innovation, and restricted firm and investor participation (De la Torre & Schmukler, 2006). In fact,

²Within sociological literature, a unique group of texts on Latin American securities markets is found in [Portes and Smith \(2012\)](#). This collaborative work looks specifically at the contribution of national stock exchanges and other institutions (tax services, post offices, civil aviation and public health systems) of Argentina, Chile, Colombia and Mexico to the development of each country and draws some comparative conclusions. Although this work is not devoted to stock exchanges or their social life, it provides shared characterizations of these cases. Notably, based on qualitative evidence from interviews and archives, this compilation describes how these markets are captured by traditional elites, even when their modernization and contribution to economic growth is highlighted (as in the stock exchange of Chile).

³Studying a non-traditional market provides new data to fuel classic and renewed discussions in the social studies of finance. Emerging securities markets have proved to be great laboratories to study how local processes have an impact on economic action such as investor behavior and trading strategies, as shown in the work of [Yenkey \(2015, 2018\)](#) on the Kenyan Stock Exchange. Latin American markets have been less explored than other emerging economies. Thus, they present valuable opportunities for moving forward or revisiting key theoretical and empirical discussions considering their specific and abundant cultural, social and political embeddedness ([González & Madariaga, 2018](#)).

⁴In this thesis I have decided to refer to this case as a *securities market* instead of using *stock exchange*, the term used in other similar studies. I believe it is more appropriate to speak of the market as it encompasses all the relevant actors and institutions addressed. Furthermore, Ecuador has two non-specialized exchanges within a common market. This division—with a strong regional component—of a unique and interconnected market is a key issue addressed in the research. I also refer to the intermediary firms in this market as brokerage firms, brokerage houses or simply brokerages, which should not be confused with the individuals that work in those entities: brokers or traders.

as we will see in detail in chapter 2, it is the market with the lowest performance in the region and presents some peculiar features such as limited equity trading and poor development of its secondary market. These features blatantly contradict the expected performance for this type of market. Nonetheless, Ecuador's local securities market has persisted over time, caught up in rentierism and the interests of large economic groups. It reflects the regional division of the country between two poles of development: the political capital, Quito, and economic hub, Guayaquil. Economic transactions in this market are deeply embedded into these features, some of them emerging from the political economy of the country. At the same time, transactions reflect the strategies that actors generate to subsist or to strengthen their advantageous positions. These last features have been studied by the early scholars of older financial markets—mostly in the US and Europe—but are still quite present in today's developed markets (Foureault, Ajdacic, & Bühlmann, 2021). This complex social life explains why the Ecuadorian case does not resemble the classic development of local securities markets and has not followed the patterns of financial internationalization or subordination that have occurred in similar economies (Bonizzi, Kaltenbrunner, & Powell, 2020). However, embedded into its own dynamics, the market still facilitates profit-making of certain actors, entails wealth concentration, and reproduces inequalities: all three features are characteristic to financialization in contemporary capitalism. Through this micro-sociology of the functioning of Ecuador's securities market, I intend to explain how finance takes a particular form when embedded into rich local dynamics while keeping some of the features of the social life of conventional financial markets. Finally, my research shows that this type of market does not depart from the effects and consequences of finance and the way it expands in other parts of the world.

From a theoretical viewpoint, I argue the embeddedness approach is the best way to study this market. Nonetheless, I revisit some pending questions within this scholarship that has stimulated social research on markets in the last few decades. Most of the work devoted to answering similar questions has focused on the role of actors' embeddedness in personal or firm-to-firm networks (i.e.: Baker, 1984, 1990;

Granovetter, 1985; Uzzi, 1996, 1997, 1999). Other research opens up alternative ways of looking at embeddedness by studying different social devices that influence economic decisions. Research addressing the role of power, culture, and calculative devices enlarge the scope of embeddedness (Beckert, 1996; Krippner & Alvarez, 2007; Zukin & DiMaggio, 1990). Overall, each of these different works have an important limit: they are not comprehensive and mostly focus on studying one mechanism at a time while the social embeddedness of markets is clearly a complex phenomenon.⁵ The ways out of compartmentalization range from discouragement (Krippner & Alvarez, 2007) to theoretical guidelines for the integration of the different traditions of embeddedness (Beckert, 2010, 2011; Zukin & DiMaggio, 1990). Unfortunately, the latter have had little empirical application and have mostly remained at the level of programmatic appeals. The present research on the rich social life of Ecuador's securities market shows how various types of embeddedness of economic action co-exist and presents evidence on how they come to combine in the medium and long term.

In this sense, this thesis not only argues that the embeddedness perspective is fitting to examine the puzzling development of the Ecuadorian securities market but it also provides a path to revisit the discussion on its compartmentalization. For this case, I argue that both the structural mechanisms inherent to the social dynamics of markets and others stemming from the country's political economy can be studied as social ties expressed at the firm-to-firm level. Therefore, I adopt the structural approach as a starting point and enhance it by including other social devices addressed in various traditions of embeddedness such as the regional dimension and the power exercised by economic groups. With these considerations, this project set out to understand the puzzling functioning of this market by studying how different social ties influence economic transactions and their outcomes.

⁵My work explores a new avenue of advancement to Granovetterian embeddedness by bridging it with other traditions that look at different social devices. It must be stated that this does not exhaust the complexity of this phenomenon but explores a subject that has been neglected. From a different angle, there is fruitful scholarship on the complexity of embeddedness that shows it is beyond interpersonal social ties and the role of firms should be viewed from a multi-level perspective (Brailly, Favre, Chatellet, & Lazega, 2016; Lazega, Jourda, Mounier, & Stofer, 2008; Tubaro, 2021).

The broad query of this research can be broken down into the following specific questions:

- How do transactions deeply embedded into business and regional networks prevent Ecuador's securities market from developing while keeping it as a functional incumbent?
- How do these different types of social ties affect the likelihood of hiring (firm-brokerage relations) and trading (brokerage-to-brokerage relations) in the market?
- What factors explain the varying deployment of socially embedded trading strategies by brokerages?
- How do brokerages combine different types of trading strategies in the long term?
- What are the individual and global economic outcomes of different business and regional ties in the market?

To answer these questions and to shed light on the puzzling functioning of this market, I followed a mixed-method approach that examines two types of economic activity: a) firms wishing to obtain financing (issuing) in the market hiring brokerages and b) trading dynamics between brokerages. A set of 22 interviews with market participants (traders and CEOs from issuing firms) provided initial evidence to construct hypotheses that were then studied in greater depth with various statistical tools.

1.2 Taking *embeddedness* on a trip to Latin American securities markets

In its effort to have a comprehensive view of the Ecuadorian securities market, this thesis engages with the particular development of overlooked markets in Latin America, that differs from the patterns set by Western models and from the rapid emergence of securities markets in several Asian economies. Although there are aspects of this market that are specific to the Ecuadorian context, several issues such as dependence on commodity production, regional divisions, and the strong presence of family-based economic groups are common features of the political economy of many of these countries. Little is known about the social dynamics that characterize these markets, with the exception of a generalized participation of elite economic groups, which stands out in the few sociological studies that exist on the subject (Portes & Smith, 2012).

By looking at Ecuador, this research contributes to the understanding of what the specialized economic literature has been quick to judge as a late or failed take-off of capital markets in the region (De la Torre & Schmukler, 2006). Admittedly, this literature does so without understanding many of the factors that explain what I would rather call their distinctive functioning. Indeed, this thesis aims to problematize the idea of *failed markets*. Acknowledging their lack of development, as assessed by various economic indicators, it cannot be denied that these local securities markets have historically functioned for specific networks and interests that can only be fully understood by looking at their complex social life. Nevertheless, these markets—whose origins are not necessarily recent—have been overlooked by economic research and have been largely excluded from the scope of the social studies of finance.

Although the appearance of securities markets in Latin America can be traced back to the late 19th century (Michie & Michie, 2006)⁶ it was only in the late 1990s

⁶This emergence is relatively late compared to those markets that appeared and flourished

that economic literature began to address them as objects of analysis. Thereafter, these markets are considered as lagging behind the big financial centers and, most similar emerging economies in other parts of the world. Conventional studies on Latin American securities markets use traditional explanatory variables found in capital markets literature such as the impact of economic growth (predominantly relying on GDP measures) (La Porta, Lopez-de Silanes, Shleifer, & Vishny, 1997; Levine, 1999; Porta, Lopez-De-Silanes, & Shleifer, 2006), the influence of macroeconomic variables such as inflation (Boyd, Levine, & Smith, 2001; Huybens & Smith, 1999) and the role of different regulatory frameworks in the development of national securities markets (La Porta et al., 1997; Levine, 1999; Porta et al., 2006).

It is important to point out that conventional studies have tended to focus on the extent to which structural reforms⁷ favor the development of such markets. This explains why they focus on factors such as trade openness (Rajan & Zingales, 2003) and market liberalization (Calderón & Kubota, 2009; Henry, 2000; Kim & Singal, 2000). These studies have a number of common characteristics. First, they usually include cases in Latin America within large sets of countries that comprise both developed and other emerging economies.⁸ In addition, they rely strongly (and almost

in Europe and North America. By 1914, the first exchanges were created and functioned in larger countries like Argentina, Chile, Mexico and Peru. These initial exchanges were mostly devoted to trading of government securities (Bulmer-Thomas, 2003). In Ecuador, the first formal exchange did not appear until 1935 although the earliest origins of this type of market can be traced back to the end of the 19th century. The first securities exchange in the country, which was located in its economic capital, Guayaquil, only existed for one year according to the records of the Superintendency of Companies, Securities Markets and Insurances. It was not until 1969 that a formal market came to existence with the two securities exchanges that operate nowadays. Unfortunately, there is very little documented information on the early origins of the securities market in Ecuador (before 1969). The succinct information that has been recovered here is available at the Superintendence of Companies, Securities Markets and Insurances' [website](#).

⁷Structural reforms refer to policies and regulations that privilege the role of the private over the public sector and aim at removing what is believed to be restriction on free market activity, e.g.: opening of trade and foreign exchange, tax simplification, financial liberalization, privatization, strict fiscal policy aimed at reducing deficits, labor reforms that reduce the cost of hiring and make it more flexible, and pension reforms that tend to the creation of private funds (Lora, 2012; Rodrik, 1996; J. Williamson, 1990). It is therefore not surprising that much of this scholarship was financially supported and published by multilateral institutions (notably, the World Bank) where several of the authors are staff members.

⁸Perhaps the most comprehensive work is Claessens, Klingebiel, and Schmukler (2006) that studies the impact of a large group of economic fundamentals on the development of worldwide

exclusively) on statistical methods and on the assumptions of the neoclassical economic approach (Samuelson & Nordhouse, 2009). Finally, they generally conclude that growth, macroeconomic stability, and the presence of liberal regulatory systems correlate with the existence of more developed and efficient securities markets.

One particular—and surprising—feature of some of these studies is their open puzzlement about the possible reasons for the (under)performance of these markets. For example, in their work on emerging capital markets in Latin America, De la Torre and Schmukler (2006) describe the shared characteristics of these markets: not liquid, not very innovative and suffering from progressive delisting and internationalization of issuing and trading. According to the authors, when compared to developed countries and to similar economies (emerging in East Asia), Latin American markets clearly perform below the expected, but the reasons for this are unclear:

(...) certain intrinsic features of these countries, that are beyond those usually highlighted by the capital market development literature but are still not well understood, may limit the scope for developing deep stock markets in the region. (De la Torre & Schmukler, 2006, p. 133).

To provide tentative answers and new lines of exploration, the authors recall economic factors such as macroeconomic volatility and transaction costs as possible distortions to the functioning of markets. They also insist on further breaking down the economic fundamentals that have been studied already and on including more fine-grained economic variables.

In the present research, I do not rule out the contribution that this exercise may have. However, I argue that is rather a sociological analysis of those misunderstood and key intrinsic features can shed light to this unsolved puzzle. In that sense, this study on Ecuador's local securities market brings the sociological approach to

local securities markets. This study includes a series of measures that account for the profundity of structural reforms and their relation to these type of markets.

a terrain with rich potential. I also argue that this national case study constitutes an opportunity for the advancement of existing theory and its methods. While sociology and other disciplines can (and should!) contribute to a better understanding of the complexity of Latin American securities markets, those cases also present valuable opportunities for moving forward or revisiting key theoretical and empirical discussions, considering their specific and abundant cultural, social, and political embeddedness (González & Madariaga, 2018). As I will show throughout this thesis, the embeddedness approach is appropriate for investigating the complex social life of these markets and it can be advanced while doing so.

The potential contribution of Latin American cases has been mentioned by some of the main scholars in economic sociology and the social studies of finance. For example, Mark Granovetter—as part of his call for an agenda on embeddedness—drew direct attention to the influence of strong family and business groups in Latin America. In a 1992 paper called "Economic Institutions as Social Constructions" he refers directly (and in Spanish!) to the role that influential *grupos económicos* play in Latin American economies. According to him, particular studies about these groups do exist but do not feed into the larger discussion on social structures into which economic activity is embedded (Granovetter, 1992). He claims that studying the ties and networks that these groups form can help us to understand their central role in modern capitalism. Additionally, he criticizes how economists have seen the strategies of these actors as responses to market imperfections and not as explanatory of the particular development of economic institutions and local markets.

Three decades later, Granovetter's critique on the lack of connection between research on Latin American economic groups and scholarship on embeddedness is still unattended. This is true although a few scholars have started to look at relevant topics such as the relation between securities markets and development (Portes & Smith, 2012) and, more specifically, the crafting of markets by economists or the way actors respond to and cope with policy changes and structural reform (Madariaga & González, 2019). A number of works could bring research questions closer to each other, such as research agendas devoted to understanding income inequality, wealth

concentration, and their relation to policy reform. Financial markets are at the core of those discussions and those academic agendas can benefit from sociological work on neglected Latin American markets. Zooming into Ecuador, there is a body of research (some works more recent than others) that is relevant to the role of economic elites and networks constituted around kinship in explaining the rise and fall of governments and the establishment of certain public policies ([Carrión, 1991](#); [Hanson, 1971](#); [North, 1985](#); [North & Clark, 2018](#); [Pástor Pazmiño, 2016](#)). The importance of the economic elites highlighted by these works can be further explored here in order to understand economic action in markets.

In addition to the role of elites, my research includes other unattended elements by the scholarship on the political economy of Latin American countries that can (and should) be transformed into variables for sociological analysis, such as regional cleavages. There are other cases that resemble what we see in Ecuador. For example, the regional division between the coast and highlands is fundamental to Peruvian society and its tensions ([Miller, 1987](#)). It is not possible to understand Bolivian society, economy, and politics without considering the historical tensions between the oriental region (the departments of the "half moon") and the Andean territories where a large part of the indigenous Quechua and Aymara population is concentrated [Calderón and Laserna \(1983\)](#). In fact, regional cleavages are found everywhere and are fundamental to contemporary societies ([Laclau & Mouffe, 1985](#); [Touraine & Dubet, 1981](#)). Including them in our toolbox allows us to rethink questions that have been addressed for widely studied markets in Europe and North America.

Finally, I argue that researchers should not see Latin American securities markets as differing completely from conventional markets in developed countries. While their particular evolution needs to be explained by looking at their rich social embeddedness, we must not forget that these markets seek to emulate Western formats and inevitably share some of their characteristics. We must keep in mind that even those modern markets that do show accelerated modernization and automation ([Knorr Cetina & Bruegger, 2002](#); [Pardo-Guerra, 2019](#)) still accommodate dynamics that account for the presence of personal ties and class solidarities that [Foureaux et](#)

al. (2021) refer to as the persistence of neo-patrimonial elements in modern finance. In my research on Ecuador's securities market I see some of those social dynamics that we find in traditional studies of Western markets, such as mechanisms for building trust and coping with uncertainty and power imbalances (like reciprocity and embedded ties). I explain how some characteristics of the social life of conventional financial markets come together with different features that emerge from the country's political economy. Together, they take the form of several types of social ties that influence economic action: looking at these ties in detail is fundamental to understanding this market's puzzling existence.

1.3 The Ecuadorian securities market: is it really a failure?

One of the main questions this thesis set to elucidate is whether this securities market is a failure or a particular type of financial market whose persistence can only be understood by looking at its complex social life. Besides what it can tell us about incumbent securities markets in Latin America and beyond this region, the Ecuadorian securities market is enigmatic and interesting on its own once we take into account two factors.

On the one hand, economists and Ecuadorian policy makers are not entirely wrong. The performance indicators of this market—that will be discussed in greater detail in Chapter 2—attest to this. Compared to similar cases in the region, Ecuador's securities market features the lowest market capitalization and traded volumes. However, it also displays some distinctive features like its resilience to external shocks. During the analysis period of this study (2007-2017), neither the shock of the 2007-2008 global financial crisis nor the oil price shock at the end of 2014 had a significant impact on the market's performance. Another distinctive feature is the fact that transactions are concentrated in the primary market and equity trading is poorly developed. These two characteristics contradict all performance

expectations for this type of market and highlight its lack of development.

On the other hand—and despite of the facts that support the idea of a failure—the market has not disappeared; it holds its ground and does not transform. Legal reforms—both deregulation and models of greater regulation and state incentives—have not changed this reality. Neither has the fact that Ecuador is a dollarized economy, a characteristic considered as a facilitator of foreign investment flows (Kaltenbrunner & Lysandrou, 2017), allowed this market to take off in conventional terms. This is the paradox of this *incumbent* case: it has not developed under the standards of capital markets but it persists and, as this thesis will show, is functional to networks of actors that take part in it. While the impact of macroeconomic aspects and the role of public policy partially contribute to understanding its failure to take off, I argue it is within its social life that we find a more comprehensive explanation for the puzzling existence of this market.

The social life of the Ecuadorian securities market consists of two main groups of features. First, the market reflects certain characteristics specific to the country and, in particular, to its political economy. The fact that it is a rentier and regionalized economy, with a strong presence of elite economic groups, has an impact on the functioning of the market. The securities that are traded, the main players, and the strategies that they adopt are contingent on this first set of historical features, which were reinforced after the formal dollarization of the economy in 2000, discussion of which is largely absent or incomplete in the existing scholarship on the country's political economy. Second, market actors rely on their social ties either to cope with difficulties or, in other cases, to strengthen their positions. For example, some brokerage firms maintain recurrent trust-based interactions and reciprocity as a form of subsistence, but in other cases we see closure mechanisms exercised by those in privileged positions, mostly belonging to the country's main economic groups. In this sense, I argue that social ties and networks play a role in this particular type of modern securities market, despite expectations of greater rationality and anonymity provided by increased use of technology.

This thesis seeks to explain how these two sets of social features coexist in this market, shape the economic decisions of market participants, and have an impact on particular and global outcomes. I argue that these devices can be studied as social ties at the firm level. In this sense, I consider the embeddedness approach to be the most appropriate way to understand how economic transactions depend on the social ties that emerge from the political economy of the country and exist because of the way market actors cope with or take advantage of market dynamics.

1.4 Revisiting and advancing embeddedness

Using the embeddedness approach to study how different types of social devices jointly influence economic action involves transcending certain limits encountered in previous work. The main outstanding discussion that this research confronts is the possibility of creating bridges between different embeddedness traditions. This thesis raises other theoretical questions regarding the type of actors who engage in socially based economic action and calls into question what we know so far about the outcomes of embeddedness. I have decided not to include a chapter devoted exclusively to reviewing embeddedness theory, but rather to place it closer to data in each chapter. Nonetheless, the main theoretical discussions of this project are briefly introduced in the following subsections.

1.4.1 Advancing structural embeddedness: ongoing ties, reciprocity, and internalized trading

In this project, I take structural embeddedness as a starting point and, to account for the rich social life of this market, I integrate other approaches that are usually considered as different traditions. Polanyi is normally associated with the earliest use of the term (Beckert, 2009; Krippner, 2004), but the more contemporary research in the topic normally refers to Mark Granovetter and his conceptualization of structural

embeddedness. In his seminal 1985 essay, he claims that the social components of economic action can be studied by looking at ongoing social ties into which economic decision-making is embedded (Granovetter, 1985). In the social studies of finance, this approach has been importantly used to study the social structure of financial transactions (Baker, 1984, 1990; Mintz & Schwartz, 1987; Petersen & Rajan, 1994; Uzzi, 1999; Uzzi & Gillespie, 1999).⁹ These works provide relevant theoretical and empirical evidence that ongoing ties (sometimes referred to as embedded ties), as means for coping with uncertainty or opportunism, matter in face-to-face financial exchanges and in the context of anonymous markets where all actors can virtually be connected to each other. This theoretical background converges with my early evidence on the functioning of Ecuador’s securities market. Thus, I first set out to explore the existence of recurrent collaboration and the impact this may have on the likelihood and intensity of the two fundamental economic operations in the market: hiring of brokerages and trading.

Early evidence from the project suggests that the social dynamics of this market are not limited to repeating ties and this classic structural approach would be insufficient. A first element that needs to be accounted for is the existence of reciprocity between brokerages when they trade. In fact, reciprocity has been studied by anthropologists and sociologists as a key element of social exchange (Lévi-Strauss, 1969; Mauss, 1967; Molm, Collett, & Schaefer, 2007). While most research on structural embeddedness has focused on repeating ties, there are already a few works that

⁹Within this scholarship we find the early work of Baker (1984) on the social dynamics of trade floors. Despite lacking an explicit reference to embeddedness, this could be categorized as the earliest empirical piece of this kind. In line with Granovetter, Baker understands markets as social structures and studies interpersonal relations that account for the social structure of trading. Subsequently, other empirical research in the area of finance explored Granovetterian embeddedness by looking at the role of ongoing ties. Several works show that transactional ties tend to repeat or embed over time and they have relevant economic impacts. Baker (1990) studied the strong ties between American investment banks and their clients that, in the long run, derive into contractual dependence and more costly transactions. Mintz and Schwartz (1987) and Petersen and Rajan (1994) show that arm’s-length ties between American firms and their creditors facilitate their access to financing. In the same line, Uzzi (1999) and Uzzi and Gillespie (1999) argue that strong repeating social ties increase the chances of small firms in the US to get loans and receive lower interest rates. In a more elaborated way, Boussard, Godechot, and Woloszko (2019) explain that previous personal ties combined with the use of ranking devices explain the chances of deal-making in the French mergers and acquisitions (M&A) market.

look at double-sense interactions as a characteristic of network exchanges (Baker, 2012; Baker & Bulkley, 2014). Furthermore, other research speaks of reciprocity as closely related to embeddedness (O'Brien & David, 2014) and in other cases it is suggested as an outcome of ties that become close-knit through time (Uzzi, 1999). More recently, Godechot, Horton, and Millo (2022) explain how direct, delayed, and generalized reciprocity exists between US executives that sat on each other's boards (between 1990 and 2015) and how this reflects on the pay they received. Zooming into finance, remarkable work has been done on Japanese *keiretsu* (Bradley, Schipani, Sundaram, & Walsh, 1999; Dore, 2000) where reciprocity is considered as having relevant impact on capital market exchanges. It is important to point out that this literature is mostly devoted to analyzing indirect or generalized network reciprocity between three or more actors. Conversely, we know little about direct reciprocity (when an actor directly gives in return or pays someone back for a favor) in securities markets.

Research on financial trading is also limited by the fact that it addresses the most basic economic exchanges as dyads. This is correct for looking at ongoing or reciprocal ties between pairs of actors. However, there are economic transactions in securities markets where only a single party is involved. I refer specifically to *internalized trading*, an extreme type of preferencing in securities markets where the same brokerage is the buyer and seller in a trade (Huang & Stoll, 1996). Internalization or *cross-trading*¹⁰ is rather a relevant trading strategy in this type of market together with other types of preferencing (such as dark pools) that have attracted the attention of regulators. In large and developed stock exchanges, internalization is quite common. In one of the earliest studies on the subject, Hansch et al. (1999) analyze a sample of shares traded on the London Stock Exchange during August

¹⁰This is an alternative definition that is closest to the Spanish term *operación cruzada* that is used in Ecuador's market and is defined as "a practice where buy and sell orders for the same asset are offset without recording the trade on the exchange (...) not permitted on most major exchanges (...) [and] occurs legitimately when a broker executes a matched buy and sell orders for the same security across different client accounts and reports them on an exchange." (Definition retrieved from Investopedia). However, the more widely used and accepted name is internalization or internalized trading as a subcategory or a type of preferencing (Godek, 1996; Hansch, Naik, & Viswanathan, 1999; Huang & Stoll, 1996).

1994 and discover that 62% of the trades were internalized. The Ecuadorian securities market, despite its differences from more developed cases, is no stranger to this feature: 57% of trades studied during the period of analysis for this doctoral research are internalized. Despite a relevant occurrence in securities exchanges, with very few exceptions such as the works of [Christie and Schultz \(1999\)](#) on the NASDAQ and [Hansch et al. \(1999\)](#) on the London Stock Exchange, research in finance has devoted very little room to analyzing this type of trading and its effects. In the social studies of finance there is no trace of internalized trading as an object of study.

While it is true that internalization implies more to the story of *a brokerage trading with itself*,¹¹ this particular feature obliges us to reconsider the way we approach to ties in the analysis of economic exchanges. Conventionally, dyads have been considered the simplest units of analysis in structural sociology ([Simmel, 1950](#)) and, of course, in the structuralist approach to the embeddedness of markets. On its side, social network analysis has largely set aside the study of *loops*, understood as nodes connected to themselves. Most network studies tend to focus on binary relations and more complex formations, rather than examining loops. Nevertheless, a few authors propose the inclusion of loops such as those that study weighted complex networks ([Wasserman & Faust, 1994](#)) or multigraph models ([Shafie, 2015](#)). The study of a securities market with significant levels of internalization obliges us to introduce this type of tie and becomes an opportunity to revisit this topic in network analysis.

¹¹A caveat: a brokerage that internalizes its trades is acting on behalf of its clients and sometimes for its own portfolio. This leads to a broader discussion about who its clients are and how this way of trading implies that liquidity stays captured within a defined group of players. Unfortunately, financial secrecy norms have prevented access to information on the clients of brokerages, which limits the scope of the present research. This is particularly important for brokerage-client relations in secondary market transactions. Nevertheless, with the information available, important conclusions can be drawn at least for the relationships between firms and brokerages in the primary market. In the corresponding chapters, I will detail how I proxy these ties with available data.

1.4.2 Several types of social ties, different traditions of embeddedness

The inclusion of reciprocal and internalized trades enhances the relational approach to structural embeddedness inside its own boundaries. This does not cover all the relevant social devices that express themselves as firm-to-firm ties in this market.¹² At this point, I engage with the long-standing critique on embeddedness and its compartmentalization. This critique takes its harshest form in the theoretical piece by [Krippner and Alvarez \(2007\)](#) who start by claiming that Granovetter’s embeddedness is radically different to the original ideas of Polanyi. According to them, structural economic sociologists insist on an exterior relationship between the social and the economy while there are other traditions of embeddedness that are closest to a Polanyian strand¹³ that speaks of a mutual constitution between both spheres. Thus, there is not one but several ways of understanding the embeddedness of economic action, without disregarding the space occupied by the structuralist line that has closely followed Granovetter’s postulates. Although [Krippner and Alvarez](#) highlight the relevance of the coexistence of different visions of embeddedness, they remain very skeptical of the possibility of bridging what they consider to be different approaches to the way the economy and the social relate.

Conversely, other scholars criticize the hegemony of structural embeddedness and discuss its limits while being more optimistic about how to extend it and integrate other perspectives. [Zukin and DiMaggio \(1990\)](#) mention that economic action is

¹²This project focuses on the study of dyadic ties (and loops) between firms (issuers and brokerages). This does not rule out the possibility of studying more complex structures such as triads or cliques. Nevertheless, I argue that the study of dyadic ties allows us to capture—in a fairly comprehensive manner—the most relevant social devices that influence economic action in this market. As I mentioned at the beginning of this introduction, my contribution to discussing embeddedness is circumscribed to this novel exercise of studying firm-to-firm ties and does not rule out that there are other ways of approaching the subject. Several scholars show the multi-level nature of embeddedness and include the role of firms and how they interact with interpersonal social ties ([Brailly et al., 2016](#); [Lazega et al., 2008](#); [Tubaro, 2021](#)).

¹³[Krippner and Alvarez \(2007\)](#) mention the works of [Carruthers \(1996\)](#), [Dobbin \(1994\)](#) and [Fligstein \(1990, 2001\)](#) among others that they consider to be part of this strand, even if they do not call upon Polanyi directly.

embedded into large and complex social processes that are not fully addressed by the structuralist approach. According to them, structural embeddedness accounts only for the relational dimension of social economic action but there are at least three other dimensions that should be taken into consideration: political, cultural, and cognitive embeddedness. Beyond their categorization, they insist that accounting for the interconnectedness of these different dimensions should be the key—yet still unsettled—contribution of the research on embeddedness. More recently, [Beckert \(2010, 2011\)](#) added elements to this reading on the limits of embeddedness and proposed that social devices that have been addressed separately such as social networks, institutions, and cognitive frames can be looked at simultaneously to better understand the social structuring of markets. Unfortunately, these purposeful critiques of embeddedness have had little empirical application and have mostly remained at the level of programmatic appeals.

To move another step forward in explaining the rich embeddedness of the Ecuadorian securities market, I argue that other types of embeddedness in this case express as dyadic social ties. To this end, I specifically look at two phenomena that are relevant in this market: regionalism and the power exercised by actors linked to elite economic groups. The first one refers to the historical division of Ecuador into two regions associated with its main cities: Quito, the political capital and Guayaquil, the economic capital ([Burbano de Lara, 2012](#); [Maiguashca, 1992](#)). This division cuts across a range of fields from cuisine and sports to political institutions, the economy, and, of course, the securities market. The single and interconnected market works through two non-specialized exchanges, one for each city. Market actors and even regulatory institutions have adapted to the regional division. The evidence shows that there are transactions that take place on a regional basis, and I ask how this affects the economic outcomes for the actors and the market itself. With these antecedents, I hypothesized on the existence of regionalism in the transactions of this market as another explanatory element of its peculiar development. The second phenomenon that needs to be accounted for is the role of the economic elites constituted around kinship ([Carrión, 1991](#); [Hanson, 1971](#); [North, 1985](#); [North & Clark,](#)

2018; Pástor Pazmiño, 2016) which are active in Ecuador’s securities market mostly through big issuing banks and the brokerages that they own or control. I argue that the power relations they exercise—in a logic of a generalized elite cohesion (Van Gunten, 2015)—can be traced in hiring and trading ties.

Overall, this research involves the study of a series of hiring and trading strategies that account for the existence of different structural ties, regional division, and the existing power relations that make up the multi-faced social embeddedness of this market. Challenging previous compartmentalization, these three components (and the social ties that embody them) are studied jointly as they simultaneously shape economic action in this market. I argue two things about the role of socially embedded economic action in this market: first, the rich embeddedness of Ecuador’s securities market explains that economic actors rely jointly on structural ties and other social devices to cope with uncertainty, opportunism, and power imbalances in markets (Beckert, 1996). This is the most widespread reading of the role of embeddedness in its different formats. Nonetheless, I argue there are players who take advantage of their social ties to restrain opportunities and strengthen their positions. In this case, embeddedness is not far from Social Closure Theory (Parkin, 2019) that explains how economic opportunities are restricted on material grounds and based on shared social attributes. Likewise, my approach to this socially embedded market is not far from the notion of opportunity hoarding (Tilly, 1998) for a closed group of actors. These two roles are expressed in the different hiring and trading strategies of the Ecuadorian securities market.

1.4.3 Socially embedded strategies: combination and different deployment

Whether to survive in an adverse environment or to strengthen their power positions, brokerages in the Ecuadorian securities market do not use their strategies in the same way. It should be noted that all existing socially based trading strategies are

used by practically all brokerages in this market. However, some actors use some strategies more intensively than others. This raises the question of whether the degree of use of the strategies is not simply circumstantial and varies according to specific factors. In this sense, two additional questions will be addressed (in Chapter 4). First, I will argue that the variation in the use of trading strategies depends on specific characteristics or preferences of agents. Second, the existence of multiple strategies implies the possibility of their combination over time. As I will argue in the corresponding chapter, this second issue is not easy to address with the current data. However, this thesis does provide some preliminary insights into how different types of strategies work together.

On the issue of the variation in the deployment of trading strategies, I question previous theory claiming that mostly smaller or weaker actors are the ones that rely on their social ties to cope with adverse conditions in financial markets. This is a widespread thesis in market sociology and especially in the case of financial markets. [Baker \(1990\)](#), for instance, explains that firms seeking financing use their long-lasting market ties in order to offset the power exercised by US investment banks. Conversely, my research on Ecuador's securities market lines up with other theory that suggests it is rather large economic actors who use their social ties in order to strengthen their privileged positions ([Granovetter, 1995, 2010](#); [Khanna & Rivkin, 2000](#); [Lancaster & Uzzi, 2012](#); [Uzzi & Lancaster, 2004](#)). The other source of difference that I explore is regionalism, which is fundamental to understanding the country and its institutions. My approach on this point differs from previous research that has focused on studying clustering or polarization of different types of social ties on geographical grounds ([Baker & Faulkner, 2009](#); [Hess, 2004](#)). Such an approach is not appropriate in a case where there is no strong clustering but a generalized use of all types of trading strategies. Therefore, I choose to analyze whether the location of brokerage firms in one city or the other (Quito or Guayaquil), encompassing proximity and cultural differences, is associated with different levels of reliance on each trading strategy. In other words, I examine whether brokerages from one city or the other are more or less inclined to use each of the socially

embedded trading strategies that exist in the market.

The other subject that will be explored (in Chapter 4) is the combination of trading strategies in the longer term. My first findings (discussed in Chapter 3) indicate that a series of social ties (which speak to different traditions of embeddedness) exist in the Ecuadorian securities market. From a theoretical viewpoint, this is a first step toward overcoming the problem of compartmentalization (Beckert, 2010; Krippner & Alvarez, 2007; Zukin & DiMaggio, 1990). If several types of strategies coexist, the question arises as to whether brokerages used them jointly and to which extent. This cannot happen at the transactional level but, in the medium or long term, brokerages may reveal preferences for combining certain types of strategies or hierarchizing them. Theoretical formulations on how to approach the combination of types of embeddedness (Beckert, 2010; Zukin & DiMaggio, 1990) and preliminary proposals to explore this issue (Baker, 2012), exist, but concrete empirical work does not. For this reason, the initial results of this thesis on the combination of certain pairs of socially led trading strategies open the avenue for future developments.

1.4.4 The outcomes of embeddedness

To shed light on the puzzling (under)development of this incumbent market, this research compares the economic outcomes of different types of socially based trading strategies. The perspective of the vast majority of studies on embeddedness is that the social life of markets is not an impediment to their development, but facilitates their functioning and traces different paths to efficiency that are not considered by traditional economic theory. However, it would be wrong to claim that the Ecuadorian market is efficient. As discussed in Chapter 2, economists and politicians are somehow right in saying that it is not a well-functioning market judging by its poor liquidity, market capitalization, and other indicators that are broadly used to evaluate capital markets. If this market has persisted over time, there must be someone who takes advantage of it even if the overall indicators do not show it. This led me to ask whether the outcomes of social economic action in this market

differ according to the level at which they are observed. In that sense, I set out to contrast the economic outcomes for firms and for the market as a whole.

Existing research looking at different consequences of embeddedness has been quite rich. Relevant economic outcomes that have been studied are firm survival (Baum & Oliver, 1991, 1992; Fischer & Pollock, 2004; Rank, 2014; Talmud & Mesch, 1997; Uzzi, 1996), firm defection from markets (Rao, Davis, & Ward, 2000), partnership stability (Polidoro Jr, Ahuja, & Mitchell, 2011), asset liquidity (Caruthers & Stinchcombe, 1999) and—of course—the issue of prices (i.e.: C. Smith, 1990; Velthuis, 2003; Yakubovich, Granovetter, & McGuire, 2005; Zelizer, 1994). Since prices are fundamental elements for exchange and profit generation in market economies, the way social structures influence them has occupied the most relevant place within this scholarship (Beckert, 2011). Recently, research on networks and price formation has even expanded to the studies of deregulated markets such as in illegal drug trade (Duxbury & Haynie, 2021). In the social studies of finance, the study of prices has occupied an important place and can be organized into two groups: one, the pricing of assets such as securities in capital markets (Baker, 1984; Pollock, 2004) or loans in conventional banking markets (Uzzi, 1999; Uzzi & Gillespie, 1999), and two, prices of financial services such as underwriting (Podolny, 1994) or legal advisory (Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004). The examples of underwriting and advisory denote how sociological research on the pricing of financial services has targeted complementary activities rather than the more basic and general services such as the fees that brokerages charge clients for trading.

In the Ecuadorian securities market, trading commissions (charged by brokerages to their clients) constitute a significant portion of the profits generated by these actors. Unlike other markets where trading firms have a greater involvement in arbitrage and speculation activities, this is not the case in Ecuador where commissions for issuance, advisory, and trading are fundamental to brokerage's income. When I explain the way brokerage fees work, I challenge the two opposing views in the literature on prices and embeddedness. Some studies understand social ties as trust-building mechanisms where prices are sacrificed to protect and cultivate those

relationships. For example, [Uzzi \(1999\)](#) and [Uzzi and Gillespie \(1999\)](#) argue that embedded ties are associated with the decrease in the cost of credit. For others, fees increase to close opportunities on social grounds. For example, the study of [Yakubovich et al. \(2005\)](#) on the US electricity market explains how leading actors imposed prices thanks to the leeway generated by their personal networks and organizational affiliations. In this thesis I show that the relationship between trading strategies and their prices is driven by trust and profit depending on the case.

In addition, I argue that the apparent division between *profit-driven* and *trust-laden* ties is not always true. This has been signaled by [Tomaskovic-Devey, Avent-Holt, Zimmer, and Harding \(2016\)](#) in their critique of works on embeddedness within structural sociology. They question the notion of embedded ties as largely characterized by the mobilization of trust and reciprocity (i.e.: [Uzzi, 1996, 1997](#)) and bring the discussion closer to industrial economics studies on the role of networks in the form of cartels or oligopolies that limit competition and impose higher prices ([Fog, 1956](#); [Perloff & Carlton, 1999](#)). Following this critique, and looking specifically at internalized trading, I argue that this strategy can serve both purposes and its association with pricing might not be as linear as suggested in previous work on embedded ties and the prices of financial services.

In addition to the prices of brokerage, in this project I included trading volumes as a key outcome that has been largely overlooked.¹⁴ This particular variable allows us to analyze both the results of trading at the actor level and the overall performance of the market contingent upon the presence of different types of social ties. This analysis at both levels aims at explaining how an underperforming market can hold its ground.

¹⁴The only exception being the work of [Baker and Iyer \(1992\)](#) which intended to expand and generalize Baker's original findings of his seminal 1984 paper on the effects of networks on price volatility ([Baker, 1984](#)). Through a theoretical model for trading in financial markets, Baker and his co-author explain that various network configurations found on empirical markets (as mechanisms to channel information) should produce different variance and volumes for trades of an asset even when the model includes investors as homogeneous actors and when the information flowing through the system is defined to be random and unbiased.

1.5 Data, methods... and how I was introduced to the market

In most cases, research projects include or come from a personal story. Sociological research is inseparable from personal experience (Wright Mills, 1959) and this the case for this project. My first close encounter with the Ecuadorian securities market occurred in 2010, when I was working as a consultant for the Ecuadorian Ministry of Economy. Because of my profile as an economic sociologist with some experience in the world of political advice, I was hired to do two things for the ministry: provide policy advice to the minister, and lead a small team that did applied research on issues that were considered to have an "important political economy component." Of course, this would have meant working on all the issues and policies that the institution was responsible for, which was impossible and not the case. However, among the issues that were considered to have "an important political economy component," I was asked to join a team in charge of drafting a proposal for a new securities market law. According to the minister, this task should not be left exclusively in the hands of lawyers and economists. This was an incredibly rewarding task during my time at the Ministry, which allowed me to get in touch with the country's securities market and its players, and to have a close look at its rich social life.

Before that, I was already aware of the existence of this market, its two exchanges, and its small contribution to the dynamics of the national economy. I had certain ideas that it was an elitist market where very few small investors invested their savings in stocks. This was the case of my mother, who owned (and still owns) shares in a supermarket chain controlled by a family group with thousands of small investors who have little or no influence on the company's decisions. In any case, the closer encounter with the market during my time at the Ministry awakened my interest in this market as a sociologist, beyond the activities required for a task that lasted a little more than a year. Several of the initial research questions—that were later refined in the course of my PhD—date from that time.

The first part of my fieldwork and quantitative data collection took place a few years later, when I decided to work on the topic for the final research paper of my MSc in Economic Sociology (formally titled "Economy, Risk and Society"), which I completed at the London School of Economics and Political Science between 2013 and 2014. This paper gave rise to the idea that the rich social life of this market could be explored through social network analysis. For this exploratory work, data was extracted from interviews and transaction records, following a format similar to Baker's seminal study of the Chicago Board Options Exchange (Baker, 1984). Seven exploratory interviews were conducted between December 2013 and January 2014 with current and former traders, an executive from the Quito exchange, and a former executive from the Guayaquil exchange. I obtained several years of transaction records from the two exchanges thanks to contacts at the market regulator (the Superintendency of Companies, Securities and Insurance) that I had from my time at the Ministry of Economy. For my doctoral thesis project, I expanded this mixed-methods design to include more interviews and, already knowing the details of the records kept by the country's securities exchanges, I made a formal and broader request for transaction data.

The 2013-2014 exploratory interviews were fully included as part of the qualitative data used for the doctoral project. In addition to these, I conducted 15 semi-structured interviews between February and April 2020 with current and former traders, one executive from the Quito Exchange, and several CEOs from issuing firms. For my doctoral fieldwork, a total of 27 interviews were originally planned and agreed upon but could not all be completed due to the difficulties posed by the Covid-19 pandemic. Some interviewees preferred not to use technological means and others could not be reached again until June 2020 when I decided to end my fieldwork in Ecuador.

Interviews lasted between 1 and 2 hours. Interviewees were consulted about their experience and work in the market. In all cases, specific questions were included to gather information on the key variables of the research: the recurrence of

interactions, the regional issue, and the role of large economic groups in the market. CEOs from issuing firms were asked about the process of choosing brokerages and how this has been maintained (or not) over the course of their participation in the market. Traders were asked about their relationships with clients and the particularities of the trading process. To narrow down and guide discussions, some descriptive statistics on the performance of each firm or brokerage were gathered. Those were collected from the main data set whose details will be discussed later. For example, interviewees were asked—based on the numbers—about recurrent relationships between pairs of actors or about the concentration of activities of their (current or former) firm/brokerage with counterparts from the same region or the same economic group. Interviews yielded evidence on the existence of social ties in this market as well as their functioning. Extracts of this evidence are mainly recovered and analyzed in Chapter 3. In chapters 4 and 5, qualitative materials are used in a complementary manner to formulate hypotheses. Details of the final 22 interviews that were analyzed for this thesis can be found in [Appendix A](#) and an example of a fully transcribed interview is included as [Appendix G](#).

In order to test hypotheses coming from qualitative evidence, early quantitative analysis, and theory, I constructed a main data set consisting of the records of all market transactions¹⁵ executed in Ecuador’s securities market between January 1, 2007 and June 30, 2017. Not publicly available, the original data was requested from the two existing securities exchanges in Guayaquil and Quito by the Superintendency of Companies, Securities and Insurances (SCVS, for its Spanish acronym)¹⁶ for this doctoral project. This involved several months of work with the superintendency’s research and technology departments, which already had some information but also had to make several formal requests to the exchanges to complete the requirements of

¹⁵This type of behavioral data (actual records of the exchanges) has advantages over cognitive data as pointed out by [Baker \(1984\)](#), who also used exchange records of transactions for his research on the social structure of a securities exchange and to evaluate its impact on price volatility.

¹⁶In a similar way to the Securities and Exchange Commission (SEC) in the USA or the European Securities Market Authority (ESMA), the SCVS is the agency responsible for enforcing securities laws and for regulating Ecuador’s securities industry and existing exchanges. It has a department (an Intendency) devoted exclusively to these tasks.

this project. The original data sets provided were cleaned,¹⁷ merged, and completed with information on economic sectors and domiciles for a total of 565 market actors: brokerages and issuing firms that were active during the period of analysis.

With the prior knowledge of the type of information that exchanges collect and store (from my master's thesis), I made a more detailed request for information per transaction. After this process, the final version of this principal data set contains data on a number of relevant variables for each chronologically ordered transaction:

- a) Date of transaction
- b) Name of issuing firm
- c) Location of issuing firm (city of the firm's headquarters)
- d) Economic sector of the issuing firm
- e) Type of security
- f) Name of brokerages involved in the transaction (seller and buyer)
- g) Location of brokerages (city of the brokerage's headquarters)
- h) Belonging of brokerages to an economic group (*grupo económico*)
- i) Type of trading market (primary or secondary market)
- j) Amount traded in USD
- k) Buying and selling commissions perceived by brokerages for each transaction
- l) Exchange used for the transaction (Quito or Guayaquil)

Three of these variables were not directly available in the original data provided by the exchanges and were constructed from other sources. The information on firms'

¹⁷The earliest information that could be collected for this project dates back to 1994. However, in the process of cleaning up the data, it was unfortunately determined that the information prior to 2007 was too incomplete to be used properly.

locations was retrieved from the public company records of the SCVS.¹⁸ In the cases where the firm's address could not be retrieved there, it was found on the online companies catalogue of business magazine *Ekos*¹⁹ and from the firms' websites. The information on economic sectors of firms was retrieved from the public company records of the SCVS and it is based on the 21 sections defined by the International Standard Industrial Classification of All Economic Activities (ISIC).²⁰ Finally, the belonging of brokerages to an economic group led by a bank (*grupo económico*) was defined, for those brokerages owned by banks until 2014 reforms,²¹ with information from the yearly Cadastre of Economic Groups compiled by the Internal Revenue Service and the SCVS public records that show the main shareholders of firms. After the legal separation between banks and brokerage houses in 2014, the continuity of relationships was determined looking at the information on the recurrent business relations that is available in the original data set. Furthermore, this information was corroborated with the help of interviews.

This core data set allowed the construction of variables that account for different types of dyadic relationships between actors and loops at the transactional level. These ties account for hiring and trading strategies such as repetition and reciprocity, regional interactions, and the exercise of power by strong economic actors. Additionally, subsidiary data sets were constructed by further processing the core data set to account for the relationships between actors and the overall performance of the market at monthly and annual levels. The details of the construction of variables and the respective data sets will be further discussed in chapters 3, 4,

¹⁸Available at: <https://appscvsmovil.supercias.gob.ec/PortalInfor/consultaPrincipal.zul?id=1>

¹⁹Available at: www.ekosnegocios.com/empresas/sectores.aspx

²⁰The classification can be found here: <https://unstats.un.org/unsd/classifications/Econ/ISIC.cshtml>

²¹I am referring to the Organic Law for the Strengthening and Optimization of the Corporate Sector and the Securities Market of 2014 (Ley orgánica para el fortalecimiento y optimización del sector societario y bursátil), which, in the same year, became part of a new Organic Monetary and Financial Code. This reform provided for the formal separation of banking entities from other activities, including securities brokerage. In practice, the actual separation of these businesses is questionable.

and 5. Econometric models were implemented to study different questions in each section of my research. These models are logistic and linear regressions whose controls, error treatments, and other details such as the use of fixed effects and ARDL (Auto-Regressive Distributed Lag) will be discussed in each chapter.

1.6 Main findings of this research

The findings of this project will be discussed in detail in each chapter in relation to the corresponding research questions. Here I provide an initial overview of the main results.

First, this research shows that a series of hiring and trading ties exist in the Ecuadorian securities market. Both qualitative and quantitative evidence indicate that recurrent collaboration is important in hiring and trading and it is a key determinant in decision-making, as prior works on financial markets have suggested (Boussard et al., 2019; Mintz & Schwartz, 1987; Petersen & Rajan, 1994; Uzzi, 1999). In addition to this classic approach to structural embeddedness by looking at the ties that repeat over time, I show there is reciprocity and a large presence of *internalized trading*. Other ties account for regional dynamics and the role of power networks controlled by large economic groups. Through statistical methods I show that all these ties (with some case-by-case variations) have an impact on the likelihood and the intensity of hiring and trading.

Zooming into trading, my findings suggest that not all strategies are deployed similarly by actors and that variation is contingent upon social grounds. First, I show that in Ecuador's securities market, bigger and more resourceful brokerages take more advantage of social-based trading. My analysis contradicts previous theory claiming that smaller or weaker players are the ones that rely on their social ties in order to cope with adverse conditions in financial markets (Baker, 1990). Conversely, I contribute to existing work that suggests that large economic actors use their

social ties to strengthen their privileged positions ([Granovetter, 1995, 2010](#); [Khanna & Rivkin, 2000](#); [Lancaster & Uzzi, 2012](#); [Uzzi & Lancaster, 2004](#)). Second, my results suggest that regional divisions matter in the deployment of trading strategies. Brokerages from the capital, Quito, engage in a greater amount of socially based trading than those located in Guayaquil, whose practices are broadly considered to be far from the standards of a modern market and, to put it mildly, closest to those of an old "gentleman's club" ([Augar, 2008](#); [Portes & Smith, 2012](#)).

When the deployment of internalized trading is studied in detail, the analysis delivers significant insights into the puzzling nature of this market. Although trading is highly concentrated into the primary market, brokerages that engage more in the secondary market internalize their trades the most. This is the first evidence that directly helps us to understand the performance of a market embedded into the dynamics of closed economic groups that own brokerage houses or work closely with them. If secondary market transactions only imply liquidity shifts within a restricted group of clients, this does not contribute to the real development or expansion of this type of market. Additionally, my research shows that equity trading in the primary market is done largely through internalization. In other words, this means Initial Public Offerings (IPOs) are restricted to exclusive groups of investors, which reflects the closed structure of capital in Ecuador ([Larrea & Greene, 2018](#)) and the hoarding practices of family-based economic groups ([Carrión, 1991](#); [Hanson, 1971](#); [North, 1985, 2018](#); [Pástor Pazmiño, 2016](#)).

Regarding the combined use of trading strategies, my findings indicate that—in the longer run—brokerages privilege particular pairs of strategies. Statistical models examining individual transactions as well as models analyzing between-brokerage and within-brokerage variation at the monthly level suggest that the strongest inter-temporary combinations exist between: a) regional trading and repeated collaboration and b) repeated collaboration and reciprocity. This part of my investigation, discussed in Chapter 4, presents several possibilities for expansion in future stages of this project or for similar research on the association of diverse types of embeddedness ([Beckert, 2010, 2011](#); [Krippner, 2004](#); [Krippner & Alvarez, 2007](#); [Zukin &](#)

[DiMaggio, 1990](#)).

Finally, this research analyzes the economic outcomes yielded by different types of trading strategies at the brokerage and market levels to understand one of the core puzzles of this project: how can the social life of Ecuador's securities market benefit some actors in different ways while apparently impeding the overall performance of the market? For this purpose, commissions charged by brokerages and trading volumes were studied as dependent variables. Regarding the prices for brokerage services, my findings suggest that repeating and reciprocal trading are mechanisms that preserve trust in firm-client relations. To do so, brokerages reduce their fees. Something similar was found for trading done on a regional basis or giving preferential treatment to actors belonging or closely related to big economic groups. The behavior of brokerages adopting these strategies is similar to what is shown in previous research on other types of services in financial markets, such as the works by [Lancaster and Uzzi \(2012\)](#); [Uzzi and Lancaster \(2004\)](#) on legal consulting where embedded ties are associated with lower prices. The study of fees charged on internalized trading yielded very interesting results: this type of trading can be profitable while allowing brokerages to foster trust-laden relationships with their clients. This particular finding adds empirical evidence to a critique posed by [Tomaskovic-Devey et al. \(2016\)](#) that claims certain business ties can be driven by both profit and trust. Lastly, I studied fees on a monthly basis as they are key sources of revenue for brokerages. I found that actors that perceive larger trading income are also more engaged in all types of embedded trading strategies, with an emphasis on internalization, regional trading, and repeating collaboration. In sum, larger income earners are the ones who do most of their trading relying on socially embedded strategies. This completes the earlier finding that bigger players (judged before by the volume of business they generate) rely the most on social ties.

The analysis of brokerages' trading volumes can be compared with the global effects of embeddedness. My findings suggest that most types of socially embedded trading strategies associate with greater trading volumes for brokerages but are detrimental to the overall performance of the market. The reliance on several trading

strategies favors results for brokerages but comes at the expense of trading with other partners, thus affecting global market performance. This last finding is fundamental to understanding the puzzling existence of this type of market: social ties can drive profits at the brokerage level and, at the same time, prevent overall development.

Globally, this research concludes that the Ecuadorian securities market does allow actors to maximize their revenues thanks to—and not despite—its rich social life that is reflected in multiple socially based hiring and trading strategies. Some of these strategies are shared with other markets and others are particular to the country’s political economy. From this point of view, this market has not failed the handful of players who benefit from it. At the same time, its social life keeps reproducing inequalities between actors with more and less resources, or with more and less power, and does not contribute to the overall development of the market and the role it could play within the country’s economy in terms of channeling available resources in a wider and more diverse manner.

1.7 Outline of the thesis

Following this general introduction (Chapter 1), the analysis, findings and conclusions of this investigation are presented in five more chapters. Chapter 2 discusses the main features of Ecuador’s political economy and how this reflects in its securities market. Variables that were studied in this thesis—such as regional division or the joint strategies of players belonging to large economic groups—cannot be understood outside this political economy. For the purpose, this chapter relies on previous works on Ecuador and the comparative political economy of the region that address subjects such as rentierism, the role of family-based economic groups, and regionalism. It includes a critical approach to aspects that have been partially addressed or neglected, such as the role of Ecuadorian dollarization and the way certain actors have consolidated by coping or taking advantage of it.

The following three chapters present and discuss the results of the empirical analysis of this doctoral project. Each of them are organized around several subjects and the corresponding research questions.²² Chapter 3 is dedicated to explaining the fact that a number of social ties are present in the market and reveal themselves as different hiring and trading strategies. From a theoretical point of view, this is a first step to showing how different types of embeddedness of economic action coexist in this market and can be studied as dyadic social ties. Through qualitative fieldwork and statistical analysis I explain how these ties have an impact on the probability of occurrence and the intensity of the hiring process of brokerages by firms that want to raise capital and also on the probability and intensity of trading between brokerages in the market.

Chapter 4 zooms into trading strategies: it discusses the socially based differences in their deployment and the evidence on how brokerages combine them in the long term. In this market, all brokerages rely on all trading strategies to a certain extent. However, the fact that actors prefer some more than others is not circumstantial and depends on the regional division and the size of brokerages. This chapter analyzes the different deployment of internalized trading and what it reveals about closure in this market and the hoarding practices of economic groups. Regarding the joint use of strategies, preliminary evidence is presented in this chapter on the combination of pairs of strategies as studied at the monthly level.

Chapter 5 presents the analysis of commissions and trading volumes, to address questions about the economic outcomes of different types of trading strategies. The study of commissions addresses the discussion on trust preservation and the maximization of profits in firm-client relations. In this chapter, trading volumes are analyzed to look at the differences in performance of trading strategies for brokerage firms and contrast it with the overall results of this market.

²²These chapters can be read with an important degree of autonomy. For this reason, the reader will find some necessary repetition of content that has been covered in previously. The goal is to facilitate reading and to have those contents close to the questions, data, and analysis addressed in each chapter.

Finally, Chapter 6 presents the general conclusions of this thesis. It summarizes the main findings of this research on the Ecuadorian securities market and discusses how they further understanding of its puzzling existence as a seemingly failed market. This chapter also puts this case study of a national market into perspective and discusses the lessons it offers for similar cases and for the social studies of finance. It also analyzes the theoretical contributions of this thesis to several topics, including the debate on the compartmentalization of embeddedness and its outcomes. Finally, this concluding chapter comments on outstanding issues, perspectives for the advancement of this project, and avenues for future research.

Chapter 2

Key features of Ecuador's political economy and its securities market

2.1 Introduction

Financial markets are inseparable from the broader economic contexts in which they exist. The Ecuadorian securities market is no exception. In this sense, an inescapable question that precedes our micro-sociology of the social life of this market is the following: What relevant features of Ecuador's political economy are reflected in the securities market and influence its functioning? In particular, we are interested in how the rentier, regionalized, and elite-dominated economic structure is reflected in a contemporary securities market. Are those traditional features still present in a modern financial market?

Some of the relational variables that are included in the core part of this research involve building bridges between economic sociology and political economy. In this sense, although this research will analyze structural features that are shared with other markets, questions regarding the role of family-based economic groups and

regionalism need to be fully understood in the context of Ecuador. Although neither the chapter nor the thesis imply profound research on the political economy of Ecuador, they take a critical approach to some elements that have not been sufficiently addressed in the existing literature. In addition, the analysis of these features will allow to discuss the relationship of the Ecuadorian economy and its securities market with the existing typologies on financialization and its effects.

With this in mind, this chapter discusses the main features of Ecuador's political economy in a way this helps us understand some of the key questions about this market. While some structural features are quite particular to Ecuador, others are shared with other countries in Latin America and have been pointed out by comparative political economists. Most of this scholarship has taken the discussion on the Varieties of Capitalism ([Hall & Soskice, 2001](#)) as a starting point and applied it to studying several regional economies in the last decades ([Bizberg, 2019](#); [Gaitán & Boschi, 2015](#); [Purcell, 2016](#); [Schneider, 2009, 2013](#)). Although it is not my intention to engage in a detailed discussion on the relevance and limits of the Varieties of Capitalism literature,¹ several of the features pointed out by these works are fundamental to understanding the functioning of Ecuador's economic system and, of course, that of its securities market. Furthermore, some aspects that are absent or partially addressed in this literature cannot be ignored for a complete understanding of the country's political economy and the economic life of its markets.

¹More recently, the discussion of economic models in Latin America has started to be addressed by the scholarship on growth-models ([Baccaro & Pontusson, 2016](#)). For example, while they do not actively categorize based on the growth-models approach, [Bonizzi et al. \(2020\)](#) suggest that many emerging capitalist economies (ECEs) in Latin America rely on export-oriented growth strategies. No documented research on growth models in Ecuador exists, but a few works do for other countries such as Argentina, Bolivia, Brazil, Chile and Mexico (i.e.: [Passos & Morlin, 2022](#)). Conversely, scholarship on the Varieties of Capitalism does cover Ecuador. For a first group of authors ([Karl, 1997](#); [Schneider, 2009, 2013](#)), Ecuador should be considered a rentier market economy due to its strong dependence on oil rents and the role of the state in managing them. To these authors, countries like Ecuador, Bolivia, and Venezuela are different to the rest of Hierarchical Market Economies (HMEs) in the region that give key importance to the presence of large family-based economic groups and multinational companies. Other scholars such as [Purcell \(2016\)](#) consider that the role of the traditional agro-export groups and newer financial and importing elites in Ecuador are not subsidiary and should be taken into account through the category of a dual rentier economy. Later in the chapter, I will propose how these categories can be advanced for the case of Ecuador.

The key feature that is highlighted by the existing scholarship is Ecuador's dependence on the exploitation and export of primary goods, which defines the *rentier* character of this economy. The state controls several strategic resources (oil being the most important) and the private sector is invested in the production, commercialization, and export of agricultural primary products such as bananas, cocoa, shrimp, and flowers. The role of large and powerful family-based economic groups controlling these activities is fundamental for this thesis. The presence of these *grupos económicos* relates closely to the concentrated capital structure of Ecuador and the persistence of high levels of inequality.

As I mentioned above, two other important features are either absent or partially addressed in existing analysis. The first one is the historical regional division of the country between its political capital, Quito, and the great pole of economic development that revolves around the coastal city of Guayaquil. Being an inseparable characteristic of the organization of economic groups and the productive activities they control, the regional issue is an important subject in the work of economic historians ([Acosta, 1995](#); [Manguashca, 1992, 2012](#)). However, political economists have not given regionalism the space it deserves. One exception is the comparison of Venezuelan and Ecuadorian development models after 1970 by [Chiasson-LeBel \(2016\)](#), who describes regional factions in Ecuadorian capitalism.

The second and more recent feature is fact that the Ecuadorian economy has been formally dollarized since 2000. This topic has been of central concern to economists and economic historians but practically absent in works on the country's political economy or in regional comparisons.² Nonetheless, there are two exceptions in the case of political economists. The first one is the work of [Purcell \(2016\)](#) who highlights the importance of exports in an economy highly dependent on currency inflows due to the lack of a national currency and how this factor has helped exporting economic groups consolidate their power. However—as I will show—his characterization of Ecuador's economy leaves aside the role of the banking sector

²A recent account of existing studies on Ecuador's dollarization by economists, historians, and sociologists can be found in: [Chiriboga-Tejada \(2019\)](#)

and the way it has coped with the monetary scheme. Additionally, Purcell overestimates the true contribution of economic elites to managing dollarization as he does not account for the real currency flows from export activities and the problem of capital flight. The other exception is the aforementioned work by [Chiasson-LeBel \(2016\)](#), which analyzes dollarization in relation to economic elites to highlight the role of coastal agro-exporting groups and their chambers of commerce in pushing for formal dollarization of the economy in the late 1990s.

In order to address our questions about how Ecuador's political economy relates to its securities market, this chapter is organized in the following way: the second section discusses the main features of Ecuador's political economy and the way they relate to each other. The third section looks at how those features manifest on the functioning of the securities market. The concluding section shows how the contributions to existing theory on the political economy and financialization inform the selection of questions and variables for this research.

2.2 Rentierism in Ecuador and its main features

The main aspect on which existing research on Ecuador's political economy converges is the rentier behavior of economic actors. To fully understand rentierism and its implications for Ecuador's securities market, we need to break it down into its main features and the way economic actors profit from or cope with them: 1) its historical dependency on producing and exporting commodities, 2) the regional organization of its economic system and, more recently, 3) dollarization. Existing works focus on the first aspect but differ in the dependencies they remark on and the place they give to the state and economic groups. The second issue, regionalism, is always present but it is not viewed as closely as it should be.³ The third issue,

³Since the 1980s, the study of regionalisms has played a very important role in scholarship on contemporary societies ([Laclau & Mouffe, 1985](#); [Touraine & Dubet, 1981](#)). In this same period, the first works on regionalisms in Latin America appeared. Examples are the texts by [Miller \(1987\)](#) on Perú or [Calderón and Laserna \(1983\)](#) on Bolivia. In the Ecuadorian case, rigorous attention to the

dollarization and how the different economic actors (the state, economic elites, and the financial sector) have positioned in relation to it is either absent or has not been fully addressed.

The evolution of rentierism and the interaction of these three features can be traced throughout the republican history of Ecuador and even before it. From the colonial and post-independence periods to the present day, the Ecuadorian economy has been heavily dependent on the production and export of commodities. This dependence, far from changing, has consolidated until today. A brief account of this evolution is useful to understand the persistence of an economic model based heavily on the extraction and commercialization of commodities, even in moments when public policy tried to change it. Most importantly, through a historical account of the three features mentioned above, we will be able to see how the state and regional economic elites play important roles in Ecuador's political economy, which is fundamental to understanding the particular functioning of the country's securities market.

2.2.1 The origins of rentierism and regional family-based economic groups in Ecuador

After the end of the colonial period,⁴ most of the country's economy was based on agricultural production controlled mainly by large estate owners in the highlands.

division between Quito and Guayaquil (the highlands and the coast) can be traced to the work of [Maiguashca \(1992\)](#). He criticized previous accounts for being exclusively centered in economic or spatial factors and proposed the regional issue should be rather understood as a complex politico-historical phenomenon.

⁴The colonial period lasted from the late 16th century until the beginning of the 19th century when the first revolts and independence wars against the Spanish crown started across the continent. The Quito revolt of the first days of August, 1809 is considered the beginning of the independence of several territories controlled by Spain. The Battle of Pichincha on May 24, 1822 marks the definitive independence of the *Real Audiencia de Quito* from the Kingdom of Spain. A large part of the territories that later constituted Ecuador were located at the Real Audiencia. Initially, the independent territories of Ecuador became part of the *Gran Colombia*—the great nation that Simón Bolívar had dreamed of—until 1830 when they separated to form what is known today as the Republic of Ecuador.

This feudal land-tenure scheme was basically an extension of the colonial institutions of *concertaje* and *huasipungo*⁵ that implied servile production relations where indigenous peasants practically received no wage for their work. Agricultural production controlled by landowners partially satisfied local demand and was supplemented by imports that covered the lack of domestic manufacturing (Guerrero, 1994; Larrea & North, 1997). While in the highlands the feudal power structure was preserved with the support of the Catholic clergy and military sectors that retained power after the independence wars (Acosta, 1995), in the coastal region the production and trade of cocoa began to take off slowly after being captured into the Spanish mercantilist system since the beginning of the colonial period (Maignashca, 2012).⁶

This regionalized economic model inherited from the colonial state was importantly expanded by the cocoa (1850s-1920s) and banana (1948-1972) export booms. As a result, the traditional landowning elites of the highlands expanded their economic activities and were joined both by new economic groups linked to agro-exports and by an emerging banking elite that appeared hand-in-hand with the increased demand for financial resources (Larrea & Greene, 2018). It is at this moment that the country's large economic groups boomed following the "kinecon" (kinship/economic) format described by Zeitlin and Ratcliff (2014) for the case of Chile.⁷ Thanks to increased international trade, the economic elites quickly expanded their activities

⁵"*Concertaje* was a form of debt peonage (including prison for debt) which was formally abolished in 1918. The *huasipungo* was the plot granted for subsistence cultivation to the [indigenous] peasant in exchange for non-paid labour for the estate owner. It was finally abolished in 1964 in Ecuador's first agrarian reform law." (Larrea & North, 1997, p. 931)

⁶The origins of the regional separation in Ecuador could even be seen in the way elites from the coast and highlands engaged on international trade in the early republican period. Maignashca explains that "[t]he *internal links* [between Quito and Guayaquil], instead of tightening, loosened between 1840 and 1890. In the last quarter of the 18th and early 19th centuries, cocoa replaced textiles produced in the highlands in the exports of the Audiencia of Quito. As a result, Guayaquil strengthened its ties with Pacific ports such as Lima and Acapulco, while its relations with Quito were significantly reduced. This territorial dislocation deepened even more by the end of the century, when Guayaquil had established close ties with all the Pacific ports of Spanish America and with the Spanish. For its part, the Ecuadorian highlands had established separate links with Colombia and Peru, including with external markets, such as the United States and the United States." (Maignashca, 2012, p. 73)

⁷In fact, the large majority of Latin American countries are historically characterized by their high levels of inequality and of wealth concentration in the hands of closed elite and economic networks constituted around kinship (North & Clark, 2018).

and created local commercial houses and import-export houses. They also became directors and owners of banks, insurance companies, and media outlets (Brownrigg, 1972; Hanson, 1971; North, 2018). These family-based economic groups also controlled university admissions and professional associations (North, 1985) as well as the nascent chambers of commerce and other economic associations that had a strong influence on political power and even participated directly in it (Mills, 1991). This historical account is essential because the same families were present in the country's economic groups at the beginning of the 1990s (Fierro Carrión, 1991) and in the first two decades of the 21st century (Pástor Pazmiño, 2016).

In fact, some of the economic groups that emerged during the agricultural booms persist until today and are importantly engaged in the securities market. This is the case for the Noboa Group which started with the first firms created by businessman Luis Noboa Naranjo in the 1940s. This group brought together a series of families (Noboa, Marcos, Arosemena and Febres Cordero) linked to the production and export of agricultural products, mainly banana. The group's flagship company, Exportadora Bananera Noboa, was consolidated in the 1970s and 1980s as the fourth largest exporter of the product in the world and its activity was linked to the emblematic transnational United Fruit Company. During this period, the economic group expanded to other branches such as cargo transportation. In the following decades, the Noboa Group extended its activities to food production (vegetable oil, flour), paper and cardboard production and imports of chemical products, vehicles and household appliances. It also became involved in the banking, insurance and media sectors (Fierro Carrión, 1991; Pástor Pazmiño, 2016). During the period examined in this doctoral research, several companies of the Noboa Group are active participants in the securities market, such as Industrial Cartonera Nacional (a large cardboard and paper company) and the group's bank, Banco del Litoral.

2.2.2 The oil boom and its implications

In the early 1970s, large oilfields were discovered in the Amazon region of Ecuador and marked more than a decade of *desarrollismo petrolero* (oil developmentalism).⁸ This development strategy was implemented by several nationalist military governments and was characterized by state-sponsored industrial policies, important migrations from the countryside to the cities, the development of the urban centers, and the emergence of urban middle classes. These policies, which were in place for almost two decades, had some initial—yet incipient—results in terms of industrialization. Despite these efforts, the economy continued to depend on the production and commercialization of commodities and, from that time onwards, on the revenues generated by oil exports.

This period marks the emergence of the state as an actor with strong economic impact through public investment and even through its direct participation in the banking and capital markets. Despite many state policies intended to support the private sector (Acosta, 1995),⁹ the elites were unwilling to cede power to the military government and opposed the role of the state as an economic actor. This opposition went so far as to support a failed coup that replaced the developmentalist military junta in 1976 with a more conservative one that was also more friendly to the

⁸*Latin American developmentalism* was a strategy designed in the 1950s by a group of economists and other social scientists that were based at the UN Economic Commission for Latin America and Caribbean (ECLAC) in Chile and the Instituto Superior de Estudos Brasileiros (ISEB) in Brazil. The strategy included a series of economic policies based on the assumption that markets can be efficient when combined with strong economic planning and with the presence of state-owned enterprises. From a theoretical point of view, developmentalism was inspired by the classical contributions to political economy of Adam Smith and Karl Marx, the works of John Maynard Keynes and Michael Kalecki, and the ideas of the development economics school (Bresser-Pereira, 2009). The first governments to frontally adopt this vision for economic policy were those led by Getúlio Vargas in Brazil and Juan Domingo Perón in Argentina, two of the main exponents of the nationalist and populist governments of the mid-20th century.

⁹Acosta speaks of "an oil state at the service of the private sector" (Acosta, 1995, p. 131) during the developmentalist period. For example, in addition to the policies of preferential credit, subsidies, tax exemptions and tariff protections that were expected from a developmentalist perspective, the state invested directly in private projects that required significant capital injections and that had little or nothing to do with government activities, such as the public investment in the construction of a large hotel (Hotel Quito) in the capital. Likewise, the state intervened in bailouts of private companies such as Ecuatoriana de Aviación, Ingenio Azucarero del Norte, Empresa de Leche Cotopaxi, and Ecuatoriana de Cardamomo (Acosta, 1995, p. 131-136)

interests of the agro-exporting elites (Conaghan, 1989). This combination of the new role of the state with the persistence of the elites' agenda did not cease even in the neoliberal period.¹⁰

While the role of the state persisted, the 1970s and 1980s witnessed the emergence of new family-led economic groups other than the tradition agro-exporting elites. These new groups—which also responded to a regionalized logic around Quito and Guayaquil—dedicated their activities to the wholesale and retail of local and imported goods. The Wright Group—whose activities began in the 1930s through warehouses of imported products belonging to the Wright and Durán Balén families—gained strength in Quito. This group built the first supermarkets (La Favorita-Supermaxi) and shopping centers in the country. According to Pástor Pazmiño (2016), between 1971 and 1987 this family group created 12 companies dedicated to the import and retail of clothes, baby items, household appliances, toys, records and the management of several shopping centers. The Wright Group also ventured into the financial sector and agricultural production. Their firms have engaged in the issuing of securities to finance new supermarket construction projects, and, although control of the company remains in the hands of the family, they have significant equity being traded on the market. In fact, the shares of La Favorita supermarkets are considered, within the particular characteristics of the Ecuadorian market, among the most liquid.¹¹

While the Wright Group emerged and consolidated in Quito, the Czarninski family gained ground in Guayaquil. On similar lines to its competitor in the highlands,

¹⁰Montúfar (2000), from a liberal perspective, speaks of a *statization* of neoliberalism in Ecuador that prevented it from being fully deployed. Other authors, such as Falconí and Oleas (2004), see the coexistence of a strong state with structural adjustment and economic liberalization policies as one of the components of a *creole neoliberalism*.

¹¹17.8% of all market transactions (primary and secondary market) for the period January 2007-June 2017 correspond to trades done with La Favorita shares. In addition, the specialized criterion on the performance of La Favorita shares comes from two sources. First, information gathered from interviews with brokers and former brokers in the market. Second, in a specialized forum created by the brokerage house Mercapital to discuss the performance of several securities, the brokerage's specialists refer to La Favorita stocks as the most liquid in the market. The discussion forum on this securities is available here: <https://www.mercapital.ec/es/blog/acciones-corporacion-favorita/>

the companies of this family dedicated to the import and commercialization of different kinds of products, build their own supermarket chains (Mi Comisariato) and hardware stores, and also created the first modern movie theaters (Pástor Pazmiño, 2016, p. 44-46). Like the Wright Group, firms owned by the Czarninski family actively participate in the securities market when their companies need financing.

2.2.3 Neoliberalism, its crisis and the different fates for banks and economic groups

A series of neoliberal governments between 1981 and 2006—that did not substantially minimize the role of the state in the economy as they claimed they would—decreased public investment and abandoned industrialization policies in favor of the implementation of the Washington Consensus,¹² which promoted economic deregulation at many levels. These policies did not translate into greater economic growth (Correa, 2002) and rather increased inequality gaps in Ecuador (Ponce & Vos, 2012).¹³ In addition, the neoliberal governments openly implemented policies of aid to large economic groups, such as the so-called *sucretization* of private debt.¹⁴

¹²The Washington Consensus is the blueprint for the economic policies implemented by the so-called neoliberal governments in Latin America since the 1970s. Its peculiar name comes a text written by J. Williamson (1990) and called *What Washington Means by Policy Reform*. It summarizes the discussions held at a conference organized by the Institute for International Economics in Washington DC in 1989 with the participation of experts from international financial organizations, notably the IMF and the World Bank. At that time, Latin American countries were suffering significant fiscal deficit problems and their debt crisis pushed for some kind of policy adjustment (Stiglitz, 2010). The IMF and the World Bank had acquired important influence over Latin American governments and dictated what they should do to solve their problems. Williamson's "consensus" is a decalogue of policies that include fiscal discipline, reduction of public spending, liberalization of interest rates, financial deregulation, labor market flexibilization, and privatizations. These policies were usually included as conditions imposed by financial organizations such as the IMF prior to the disbursement of credits to countries.

¹³The poor results in terms of growth and widening inequality gaps in Ecuador follow what happened in other countries as reported by multiple independent studies (Forster, Kentikelenis, Reinsberg, Stubbs, & King, 2019; Gasparini & Lustig, 2011; Stubbs, Kentikelenis, Ray, & Gallagher, 2021) and the IMF itself (Ostry, Loungani, & Furceri, 2016)

¹⁴Between 1983 and 1984, the Ecuadorian government signed several debt-refinancing agreements with international financial banks, the IMF, and the Paris Club, which provided for the conversion of the foreign debt of the private sector into the debt of the Central Bank of Ecuador. This process, commonly called *sucretización*, benefited an important number of large companies and banks in

In this period, the country faced the biggest financial crisis in its history, which culminated in the bankruptcy of several banks at the end of 1999 despite their receipt of state aid and debt relief. The economic meltdown was marked by tremendous political instability. The greatest sign of this is the fact that, in the last 10 years of this period (between 1996 and 2006), Ecuador had seven presidents. None of the three elected presidents completed their term after being dismissed by the parliament in the context of serious social turmoil.

During this very unstable period, Ecuador's economy remained dependent on the export of commodities and highly sensitive to their performance on international markets. In the absence of an industrial policy and in the context of trade liberalization, local manufacturing did not take off and demand kept being met through imports. In this context, traditional family economic groups such as the Noboa, Wright, and Czarninski strengthened their economic positions (Pástor Pazmiño, 2016). Their firms also became more active in the local securities market, which had become slightly more dynamic after the enactment of a new law in 1993 that intended to give it a more relevant place in the economy in line with the prescriptions of the IMF and World Bank.

Not all business groups fared well during this period. Several members of the country's economic elites were central actors in the crisis of 1999 and were hit hard by it. One of the largest banks that went bankrupt during the crisis, Banco del Progreso, was the backbone of a family-based economic group (the Aspiazu Group) that emerged during the cocoa boom. Starting as a monopoly of cocoa estates from the beginning of the 19th century until 1923, by the end of the 20th century the Aspiazu family had modernized its business and created Aspiazu Estates Ltda., which was the axis of the economic group that included investments in the privatized electric company EMELEC and multiple media: the daily *El Telégrafo*, three radio stations and a television channel called Telecentro (Checa-Godoy, 2012). Since the early 20th century, the family had already ventured into the banking business as

Ecuador. Through it, the government took over the private sector's foreign liabilities for a total of USD 1.6 billion (Acosta, 1995; Chiasson-LeBel, 2016)

shareholders in the Banco Comercial y Agrícola, the first bank created in Ecuador (Fierro Carrión, 1991; Manguashca, 2012; Pástor Pazmiño, 2016). By 1981 the group had its own bank, Banco del Progreso, that went bankrupt amid a scandal of loans granted to individuals and companies of the family group that seriously affected the bank's liquidity management in the midst of the crisis.¹⁵ Despite the controversial use of the bank's resources, these were operations permitted by the economic deregulation implemented years before.¹⁶ Banco del Progreso had its own brokerage house, Mervalores, that was essentially devoted to trading the bank's securities in the 1990s.

Unlike Banco del Progreso, other banks survived and actually benefited from the crisis. The country's two largest private banks that exist today, Banco Pichincha and Banco de Guayaquil, weathered the crisis well and came out of it stronger. These banks are also the axis of two of the largest economic groups that exist today in Ecuador¹⁷ and although their activities have expanded nationally, their origins and main activities are strongly rooted in the regional division of the country. These two banks, several related companies of their groups and the brokerages they owned until 2014 (and are still linked to them) are among the most important participants in the securities market during the period of analysis of this research. According to several investigations (García, 2017; León Cercado & Triana Villanueva, 2009; Páez, 2004), these and other banks that survived the crisis made important revenues by trading Reprogrammed Certificates of Deposit (CDRs, for their acronym in Spanish) granted to clients of the banks that failed.¹⁸

¹⁵A complete compilation of the entire Banco del Progreso bankruptcy case and its relation to the 1999 banking crisis can be found in: Bravo Herrera (2004).

¹⁶In 1994, during the administration of Presidente Sixto Durán Ballén, congress approved the General Law of Financial Institutions (Ley General de Instituciones Financieras), which deregulated banking activities. Among other things, the new norm eliminated the limits imposed to banks for the use of their resources to finance activities of related companies.

¹⁷According to the 2021 Cadastre of Economic Groups by the Internal Revenue Service, the Banco del Pichincha Group ranks first (assets of USD 19 billion) while the Banco de Guayaquil Group (assets of USD 6 billion) is in fourth place. The Wright Group ranked third, the Czarninski Group ranked ninth and the Noboa Group ranked 19th.

¹⁸The most documented case is that of Banco de Guayaquil thanks to information revealed by the Panama Papers and the exposure of the main stockholder of the bank, Guillermo Lasso, who

The consolidation of the banking groups that survived the 1999 crisis cannot be fully understood without considering how they reacted to the formal dollarization of the economy in 2000. The government that faced the crisis claimed that full dollarization¹⁹ was the way of containing the economic meltdown that, other the banking crisis, included a context of hyper-inflation and hyper-devaluation of Ecuador's former currency (the Sucre). In fact, during the final stage of the crisis, the Sucre's devaluation was accelerated by the banks' bailouts by the Central Bank, which required significant primary money creation.

Dollarization was far from being a spontaneous and homogeneous process culminating in a formal adoption of the US currency, as most economic studies claim. Conversely, it was functional and enhanced the position of certain actors ([Chiriboga-Tejada, 2019](#)). Many of Ecuador's elite business groups, mostly those linked to imports and with important assets positions abroad, were in favor of a total dollarization of the economy since the 1990s. Not so the banking groups—notably those in Quito—who took daily advantage of the arbitrage in the volatile exchange between sucres and dollars.²⁰ However, the big banks that survived the 1999 crisis quickly learned how to cope with and boost profits under the dollarized scheme and consolidated themselves at the head of the country's large economic groups up to the

is also an active politician and the current president of Ecuador. According to an investigation by [García \(2017\)](#), the main shareholder of the Bank, Andean Investment Ltd (a company domiciled in the Cayman Islands and indirectly owned by Guillermo Lasso), generated profits of USD 30 million between 1999 and 2000 in the midst of the crisis. García explains that after the peak of the crisis, failed banks (bailed out by the state) issued CDRs to show that depositants had a certain amount of money in their accounts that at some point could be redeemed or traded. The banks that did not fail took advantage of the great demand for liquidity from those affected by the crisis and repurchased these certificates at 40% to 50% of their value. Yet, the government allowed private banks to cancel their obligations with public institutions with these certificates at face value.

¹⁹Although the dollar's incursion into Ecuador dates back to the 1980s with a repertoire of monetary pluralism ([Chiriboga-Tejada, 2019](#)) between sucres and US dollars, the country's economy was formally dollarized by executive decree on January 9, 2000 after several years of economic crisis characterized by hyperinflation, a huge devaluation of the national currency and the worst banking crisis in the country's history ([Acosta, 2004](#); [Naranjo, 2003](#); [Páez, 2004](#)).

²⁰The deregulation implemented at the beginning of the 1990s had already allowed banks to operate in dollars and facilitated the placement of resources offshore ([Chiriboga-Tejada, 2019](#); [Páez, 2004](#)).

present day, hand in hand with the traditional groups linked to agro-exports, wholesale and retail of imported goods.²¹ Today these actors fit in the political economy of Ecuador that is rooted in the historical productive dependence on commodities and the regional division of the economy, and have strengthened their position in a dollarized context even when, paradoxically, they do not concretely contribute to its sustainability. In the subsection dedicated to discussing dollarization and its role on Ecuador's current political economy I will explain this paradox in greater detail.

2.2.4 The political economy of post-neoliberal Ecuador

The history of the formation of Ecuador's regionalized economic elites and the role of the state in the economy, help us to understand the origins of the country's current political economy. During the period of analysis of this research (2007-2017) Ecuador was governed by Rafael Correa²² who—along with Hugo Chávez (Venezuela), Evo Morales (Bolivia), Luiz Inácio Lula da Silva (Brazil) and Néstor Kirchner (Argentina)—is considered one of the leading exponents of the first wave of post-neoliberal progressivism or *Pink Tide* in Latin America (Cameron & Her-shberg, 2010; North, 2018). After the developmentalism of the 1970s, the Correa administration positioned itself as a second attempt to move the economy away from its dependency on commodities despite always acknowledging a need to exploit the country's natural resources as a first mandatory step towards the "transformation of Ecuador's productive matrix."²³

²¹An account of how banking groups changed their *modus operandi* to adapt to the full dollarization of the economy can be found in the text by (Chiriboga-Tejada, 2019).

²²Quantitative data collection for this thesis started in the second half of 2017. For this reason, my data sets have a cut-off as of June 2017. Since the end of May 2017, Ecuador began to be governed by Correa's dauphin, Lenin Moreno who curiously made a 180-degree turn (which Correa labeled as treason) and marked the beginning of a new era of open neoliberalism in Ecuador. This period, which corresponds to the administrations of Moreno and current President Guillermo Lasso, is not covered by this research, even though there are aspects of the country's political economy and the behavior of the securities market that have not changed in recent years.

²³In fact, Correa was the proponent of the Yasuní ITT Initiative in 2007, which proposed to leave a large amount of the country's oil reserves underground in order to protect one of its most iconic national reserves and to show the world that radically stopping oil exploitation was an

Although Correa's government implemented a series of redistributive economic and social policies that had a significant impact in terms of poverty reduction and a generalized increase in the population's purchasing power,²⁴ the rentier economic scheme and the country's capital concentration structure did not undergo major changes (Larrea & Greene, 2018). This government even created a specific plan for the transformation of the "productive matrix" (named *Estrategia Nacional para el Cambio de la Matriz Productiva*, with the vice-president in charge of implementing it) to reduce the economy's dependence on commodities and to move into manufacturing and knowledge-intensive activities. These policies yielded no major results during the 10 years of Correa's government.²⁵

As these post-neoliberal years coincide with the period examined in this research, it is worth providing further analysis and data on the continuity of rentierism in Ecuador, its dependence on commodities and the role of economic actors. To start off, Ecuador's reliance on oil production and exports is visible in the composition of its trade balance. Once it is disaggregated into oil and other types of trade (Figure 2.1), the oil section is always positive while the rest of the products traded between Ecuador and other countries are negative. This dependence is why several comparative political economists of the region refer to Ecuador as a *rentier* petro-state on similar lines to Venezuela (Karl, 1997; Schneider, 2009, 2013).

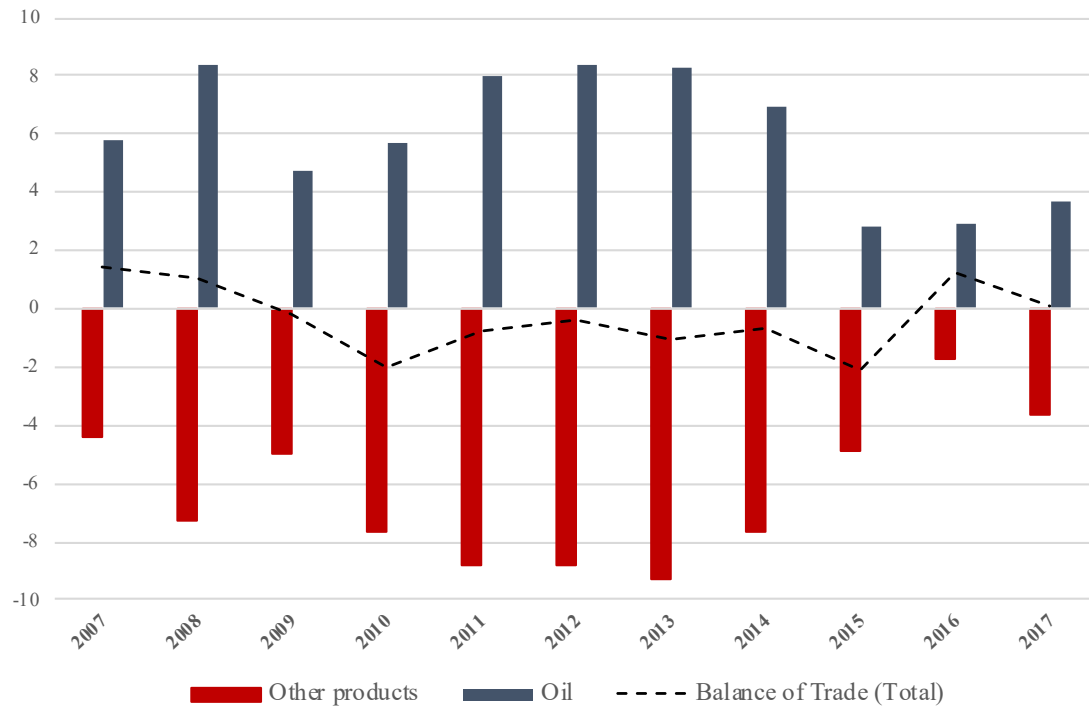
However, we see that the behavior of the *non-oil* sector has a significant impact on the final result (positive or negative) for each year. Notably, in years when

option. In the proposal, Ecuador would forgo half of those oil revenues if it received the other half through international compensation. Correa finally abandoned this initiative in 2013 explaining that the international compensation mechanism (a trust fund administered by the UN) did not collect sufficient resources and Ecuador could not stop using its oil revenues to finance its public policy (Larrea & Warnars, 2009; Le Quang, 2016; Martin & Scholz, 2014)

²⁴According to the National Institute of Statistics and Census (INEC, for its acronym in Spanish), between 2006 and 2016 poverty (measured by income) decreased from 36.7% to 22.9%. Extreme poverty decreased from 16.9% to 8.7%. The minimum wage increased from USD 275 in 2007 to USD 407 in 2016. The Gini coefficient for income went from 0.553 in 2007 to 0.466 in 2016.

²⁵The reasons for the lack of results of these policies are a subject of important discussion that has not yet been settled. Larrea and Greene (2018) suggest that "either [the role of] politically powerful elites, the Correa presidency's own lack of capacity and political will, or a combination of the two" are possible responses.

Figure 2.1: Ecuador’s Balance of Trade 2007-2017 (in billions of USD)



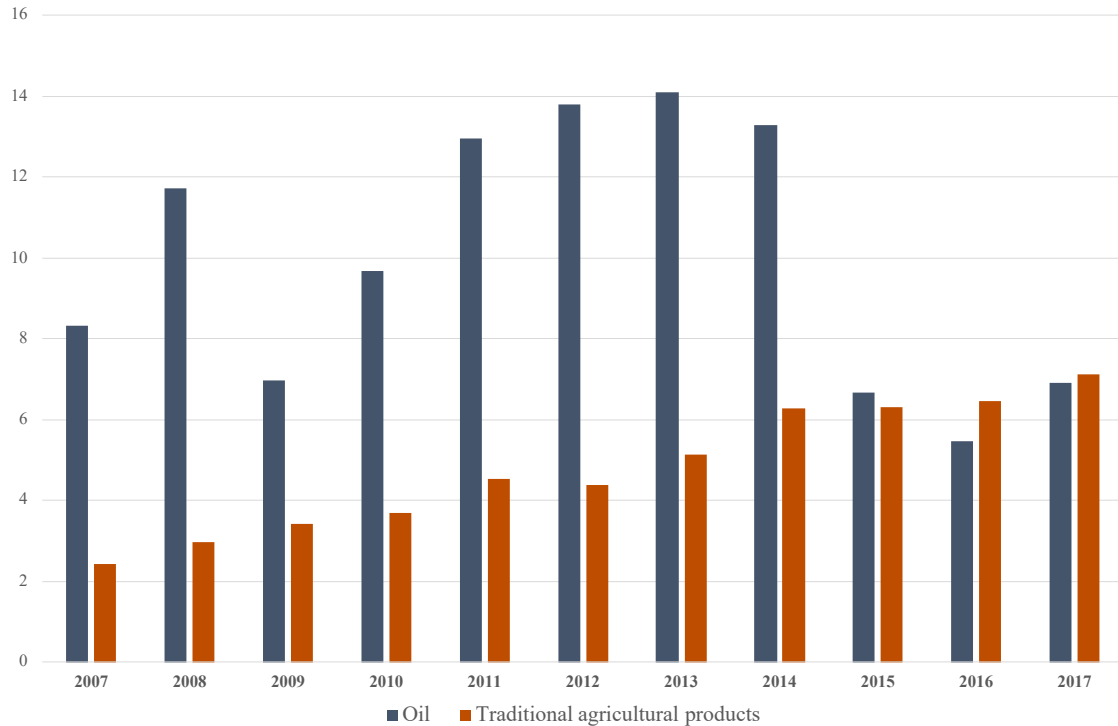
Source: Balance of Payments data from the Central Bank of Ecuador

the trade balance is positive, the result is impacted by the behavior of exports and imports from other sectors of the economy, mainly agriculture. These sectors include traditional banana and cocoa plantations, which were later joined by other large agricultural exploitations in the hands of the main economics elites: shrimp, tuna, coffee and flowers. If we focus only on the export side of the trade balance, in our period of analysis, oil is clearly the country’s major export until the collapse of its prices at the end of 2014.²⁶ Nonetheless, the exports of other traditional products occupy an important place as we can see in [Figure 2.2](#). In fact, we see how exports of traditional *non-oil* products steadily increase between 2007 and 2017. We can also appreciate that after the oil price shock of 2014 they have a similar contribution.

For these reasons, it is not quite adequate to place Ecuador into the rigid category

²⁶Oil prices collapsed from a peak of USD 107.95 on June 2014 to USD 44.08 a barrel (WTI) by the end of January 2015.

Figure 2.2: Ecuador's Exports 2007-2017 (in billions of USD, FOB)



Source: Balance of Payments data from the Central Bank of Ecuador

of petro-states with the hyper-dependencies and dilemmas described in the specialized literature on the subject (Karl, 1997). A more appropriate categorization for the country's political economy is the existing notion of *dual rentierism* (Purcell, 2016) that considers its dependence on oil trade and on traditional agro-exports controlled by economic elites. As we will see later, the role of agro-exports and the elites that manage them are fundamental to understanding the peculiarities of the securities market. Moreover, in the case of Ecuador, the large exports generated by economic elites are expected to provide foreign exchange flows as the country's monetary policy has been seriously limited since 2000, when the current government abandoned the national currency and opted for a complete dollarization of the economy.

2.2.4.1 Dollarization: expectations and reality

Dollarization is an inescapable subject for understanding Ecuador's current political economy. A country that has entirely abandoned its own currency is obliged to have sufficient capital and trade flows that provide foreign exchange to its economy. In full dollarization—as in Ecuador—the state can neither intervene in the internal supply of currency nor impact the real value of exports and imports through primary money creation. Thus, full dollarization obliges the state to find ways to ensure positive net flows of foreign exchange. This also places actors dedicated to international trade and controlling capital flows in key positions. These expectations—from which the power and influence of certain actors derive—must be contrasted with what has actually happened in terms of monetary flows. This last point implies a paradox in Ecuador: the private actors that have gained prominence in the context of dollarization do not necessarily contribute to its real sustainability. The most complete analyses of Ecuador's contemporary political economy, such as [Purcell \(2016\)](#) and [Chiasson-LeBel \(2016\)](#), fail to discuss this paradox.

A first key element to account for is that the flow of oil export revenues for the Ecuadorian government has been fundamental for the sustainability of dollarization. In an economy with a high propensity to import manufactured goods (see [Figure 2.1](#)) and with a big problem of capital flight²⁷, the high inflow of dollars from oil exports helped mitigate the negative effect of the lack of monetary sovereignty. In fact, the collapse of crude oil prices in the second half of 2014 showed this structural vulnerability of the Ecuadorian economy ([Villalba, 2019](#)). Remittances from Ecuadorian migrants who fled the country during the economic crisis of the 1990s also played a key role during the first five years of formal dollarization until the flow slowed down from 2005 onward ([Acosta, López, & Villamar, 2006](#); [Larrea, 2004](#)).

Dollar flows from large exporters should—in principle—play an important role in

²⁷[Weisbrot and Arauz \(2019\)](#) explain that capital flight is a major concern for the Ecuadorian economy. They estimate that in 2017, it reached USD 6.8 billion (this includes net foreign direct investment, net foreign investments in portfolio flows, external private loans, and deposits abroad).

providing dollars to Ecuador's economy. This expectation has certainly strengthened their role in the economy and, mostly, their power vis-à-vis the governments in office. On this point I agree with the importance that [Purcell \(2016\)](#) gives to the agro-export sector when he says that Ecuador is more than a petro-state. It is correct to claim that the role of large economic groups has strengthened within the dollarized economy. However, this is derived from expectations and not from real contributions. Purcell does not look at the true contribution of net foreign exchange. The fact that exporters leave their revenues offshore has been documented and criticized for the negative impact it has on an economy highly dependent on those flows. In effect, money inflows from export activities are much lower (or sometimes zero) with respect to the amounts sold ([Arauz, 2009](#); [Carvajal, 2015](#); [Chiriboga-Tejada, 2017](#)).

Other than research on real export flows, the reality of foreign exchange in Ecuador explains a series of policies that were in place between 2007 and 2017 to impact those inflows including measures to propitiate the return of export revenues.²⁸ This is the paradox of dollarization in relation to exporters: those whose have gained from it do not necessarily contribute to its real sustainability. In any case, large economic groups dedicated to agro-exports are an important part of Ecuador's political economy and its international trade structure, even when their actual contribution to the country's dollarized monetary aggregates is less than what some analyses suppose.

Finally, a complete view of *rentierism* cannot ignore the behavior of Ecuador's financial elites in the context of dollarization. [Chiriboga-Tejada \(2019\)](#) explains there was a shift in the scheme of rent extraction of banks in the transition from

²⁸A key moment in the concern about the non-return of revenues perceived by large export groups is the 2011 reform to Ecuador's tax regulations that, since 2007, include a capital outflow tax (ISD, for its acronym in Spanish). Through the Reformatory Law for Environmental Promotion and Optimization of State Revenues (*Ley de Fomento Ambiental y Optimización de los Ingresos del Estado*) of November 24, 2011, the Ecuadorian government amended Article 156, paragraph 4 of the Law for Tax Equity (*Ley para la Equidad Tributaria*) so that export revenues that are not deposited in the country would also be taxed with ISD. Similarly, the 2014 Organic Monetary and Financial Code (*Código Orgánico Monetario y Financiero*) included Article 142 that allows the Central Bank to establish mechanisms to guarantee the net return of non-oil export revenues. After the end of the post-neoliberal regime of Correa, these mechanisms were derogated or counter-regulations were established that prevent their full compliance.

the mixed monetary regime of the 1990s (in which sucres and dollars coexisted) to the total dollarization of the economy after 2000. This work shows how, before formal dollarization, banks took advantage of the extreme devaluation of the Sucre and the arbitrage opportunities this generated between the public's deposits in sucres and their own investment portfolios in dollars. This study also analyzes the change in the discourse of the banks' representatives and between the financial products developed in both stages. Testimonies from media interviews before formal dollarization show that bankers—mostly from Quito—were initially opposed to dollarization while other elites—mostly in Guayaquil and on the coast—campaigning in its favor.²⁹ However, a few years after *de jure* dollarization was in place, the financial sector changed its discourse and learned how to cope and take advantage of it: it shifted its activities significantly to favor easy revenues from its clients (based on increasing placement of consumer credit and commissions for banking services) while pushing for further deregulation to favor capital flight and the placement of resources in tax havens.³⁰ This is a clear rentier way of functioning in the sense that it contributes little to the channeling of resources toward real production and does not contribute to the sustainability of dollarization. All this evidence shows that it is not possible to speak of rentierism in today's Ecuadorian economy without speaking of the *rentierism of banks*.

A detailed look at the current profit generation scheme of the banking system shows how it contributes little to the financing of the productive sector, seeks to

²⁹This regional division in the positions of the economic elites with respect to dollarization is also suggested by [Chiasson-LeBel \(2016\)](#).

³⁰This last aspect is the only form that the financialization of the Ecuadorian economy has taken in the context of the internalization of finance, a topic that deserves its own discussion. It closely relates to this research but goes beyond its scope. Instead of a sort of *subordinate financialization* ([Bonizzi et al., 2020](#)) characterized—among other things—by the volatility of capital flows (in an economy that already uses the dollar and whose dominant position could be "exploited" in that sense ([Kaltenbrunner & Lysandrou, 2017](#))), in Ecuador this has been a process trapped in local dynamics. In fact, the functioning of its hyper-embedded securities market is an example of this. Now, if we consider that offshore finance is the peak of the dominance of the financial sector over society as a whole ([Fernandez & Hendrikse, 2020](#)), Ecuadorian capitalists have taken a rapid leap in this direction.

maximize the extraction of resources from clients (through high rates and commissions), and includes favoritism for the placement of resources offshore. After formal dollarization, Ecuador's banks have not significantly increased the placement of credit ([Ontaneda, 2017](#)) and prefer credit segments with high interest rates: the system's loan portfolio is concentrated in consumer loans (mostly credit cards) and the productive credit segments are mainly destined to commerce and import activities. Microcredit, with the highest rates as it is usually aimed at higher-risk borrowers and it requires greater monitoring by the financial institution, tends to conceal financing for sumptuary consumption ([Chiriboga-Tejada, 2017](#)).³¹ Additionally, Ecuadorian banks charge high fees for services such as the use of credit cards, ATMs, or checks. For example, according to a [2022 Forbes Report](#), average credit card processing fees in the world range between 1.5% and 3.5% while in Ecuador they are fixed at 4.02%.³²

This scheme has been very profitable for local banks and it has allowed them to climb within the country's economic groups. In the period of analysis of this research, the financial sector³³ grew an average of 5.3% annually ([Table 2.1](#)) and was second only to the electricity and water supply that are largely managed through state firms and where—during the period of analysis—important public investments were made in the construction of big hydroelectric power plants. Hand in hand with this, the banking system has constantly pushed policymakers and lobbied for greater capital account deregulation with the purpose of keeping their resources offshore. This has fueled capital flight which in Ecuador—unlike other cases such as Argentina—is not

³¹According to the Superintendency of Banks, as of June 2017 (the end of the period analyzed in this research), the main activities financed by the banking system's loan portfolio were: 16.39% for credit card consumption, 15.50% for financing wholesale and retail activities, and 14.33% for non-productive consumption. The loan portfolio destined to financing productive activities (industry and manufacturing) represented only 11.65%. Source: [Sectoral Credit Behaviour Report \(June 2017\)](#).

³²This is the current rate stated in the catalog of regulations of the Financial Regulatory Board of Ecuador. The rate has not been modified in recent years and was in effect during the period analyzed in this research. The catalog of regulations in force in 2017 can be consulted [here](#).

³³The composition of Ecuadorian national accounts includes, within the financial sector, other activities such as insurance and trading of securities. Banking activities are the largest contributor to this section of GDP.

explained by the dynamics of foreign speculative capitals but by outflow of resources of economic elites (Weisbrot & Arauz, 2019).

Table 2.1: Annual variation of GDP by sector. 2007-2017

Sector	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2007-2017 Average
Agriculture	4.7	2.4	1.8	0.8	8.0	0.6	6.8	7.4	2.8	0.3	5.3	3.7
Mining	-7.2	0.4	-3.9	-0.2	2.8	2.6	4.2	6.4	-1.9	1.5	-2.8	0.1
Manufacturing	5.2	8.9	-2.3	3.4	6.6	3.9	3.9	3.4	-0.2	-1.0	3.6	3.2
Electricity and water	2.4	9.8	-1.4	17.9	7.8	7.3	8.5	5.8	6.7	-0.2	1.7	5.9
Construction	2.4	8.9	2.7	3.7	17.6	13.4	10.9	4.3	-0.5	-3.7	-2.7	5.0
Wholesale and retail	2.4	12.4	-3.2	3.4	5.8	4.2	6.5	3.6	-1.5	-4.3	4.5	3.0
Hotels and restaurants	3.6	5.6	8.3	4.4	6.0	3.9	4.8	2.1	-3.5	-1.1	6.1	3.6
Transport and telecommunications	5.8	10.0	6.3	5.2	7.6	6.8	7.7	4.3	1.9	0.7	0.4	5.1
Finance	6.9	7.9	2.9	5.8	10.1	14.5	0.7	6.5	0.3	-0.5	4.2	5.3
Real Estate	4.7	4.7	-0.7	2.7	5.6	3.3	5.2	4.1	-0.4	-1.0	-1.9	2.3
Public Administration and Social Security	7.1	3.8	13.5	0.4	9.9	11.5	9.4	3.7	-1.2	-1.6	1.9	5.2
Services for Households	5.2	6.6	2.4	5.3	5.2	6.2	6.2	6.5	0.9	-2.2	2.2	4.0
Domestic Service	0.1	-0.6	16.4	7.0	-3.5	-1.4	1.8	4.8	-2.4	8.6	7.9	3.4

Notes: Values are the year-to-year percentage variation of GDP in the corresponding sectors defined by the Central Bank. The period average is the geometric mean of annual values.

Source: Central Bank of Ecuador

This detailed discussion of dollarization explains how the regionally organized economic elites, led by the banks, have consolidated their positions within Ecuador's political economy since 2000. This consolidation—based on elites' actual use of the dollarized system to their advantage and the expectations they project about their contribution to its sustainability—is the main point of interest in this analysis. How is the predominance of these actors reflected in the functioning of the Ecuadorian securities market? We know that the role of commercial banks in capital markets is the subject of important discussions. On the one hand, they are seen as potential liquidity providers and market makers, but on the other hand, their involvement in investment banking activities has been strongly criticized because of the conflicts of interest and economic distortions that they can generate. In light of these considerations, I ask: how does the presence of these actors and their relationships affect this market and its economic outcomes?

2.2.5 Concluding remarks on Ecuador's political economy

In this first part of this chapter, I have discussed three key features of Ecuador's political economy for their potential relevance to the development and functioning of its securities market. In doing so, I have drawn on previous literature and included evidence I believe has been neglected or incompletely addressed in specific works on the country's political economy.

First, I argue that the current political economy of Ecuador cannot be understood in isolation from its historical evolution since colonial times. For this reason, I began by discussing its origin and evolution in a brief historiographical reconstruction. Several episodes in this evolution explain the way in which dependence on commodity production and exports has deepened even when government policy has tried to overcome it. Likewise, this reconstruction allows us to understand the emergence and consolidation of the country's economic groups that actively participate in the securities market.

Second, it is important to understand the fundamental role of oil exploitation since the 1970s and the state rentierism that was constructed around it. However, Ecuador's export rentierism is not only about oil, but is also determined by the behavior of traditional agro-exporting sectors and more recent economic elites dedicated to commercial activities. These groups—even when their scope reaches the national level—operate in a logic that responds to the traditional regional division.

Finally, Ecuador's current political economy cannot be fully understood without talking about dollarization, both because of its impact on the country's international trade dynamics and because of the ways in which local elites have benefited from the loss of monetary sovereignty. At this point, I argued that a complete reading of Ecuador's political economy must include the rentier dynamics of the country's banking class under dollarization.

Since rent-seeking behaviors can be traced in multiple dimensions, looking at

state, oligarchic, and financial rentierism in Ecuador is necessary to understand the behavior of the different actors in the country's securities market and the peculiar development it has undergone. In the next section, I show how these features shape the country's securities market and the reasons why we should take them into account when analyzing its social life.

2.3 Key features of Ecuador's securities market

Are the features of Ecuador's political economy reflected in the securities market? In this section, I will explain how, throughout its existence, this market has indeed been characterized by regional division, the presence of the state and its liquidity, the interests of family-owned companies, the irruption of large banks in the last decades, and underperformance by the standards established for this type of market. First, I analyze evidence of this underdevelopment, which has not prevented this market from continuing to function. Then, I analyze how the key features of Ecuador's political economy take shape in this peculiar market and characterize its paradoxical existence.

2.3.1 A failed market?

The origins of the securities market in Ecuador can be traced back to the end of the 19th century. It developed at a very slow pace until it took off in the 1990s, when it adopted the structure of the modern market as we know it today. Ecuador's market, together with the rest of local securities markets in Latin America, is broadly considered a case of underdevelopment in specialized scholarship on capital markets.³⁴ These works diagnose the low performance of Latin American securities

³⁴The large body of scholarship on the subject includes works on the relation between growth and capital markets (La Porta et al., 1997; Levine, 1999; Porta et al., 2006), the impact of inflation (Boyd et al., 2001; Huybens & Smith, 1999), and the role of different regulatory frameworks (La Porta et al., 1997; Levine, 1999; Porta et al., 2006). These works usually include cases in Latin

markets based on their lack of liquidity, poor innovation, and progressive delistings. They explain those facts as consequences of macroeconomic volatility, high transaction costs, and the impact of regulatory systems (De la Torre & Schmukler, 2006). Ecuador's securities market has lagged behind referential markets both around the world and in the region.

Figures 2.3 and 2.4 show the yearly evolution (2007-2016) of two key indicators of capital markets' performance, market capitalization and volumes traded, for several countries that are comparable to Ecuador based on different criteria.³⁵ We can appreciate that market capitalization in Ecuador is the lowest of all the countries included (Figure 2.3). This indicator of the global value of shares from listed firms³⁶ has never exceeded 10% of GDP. Additionally (and interestingly), the indicator does not show major variation in times of external shocks such as the financial crisis of 2007-2008 or the drop in oil prices at the end of 2014. If we take into account the traditional accounts for the underdevelopment of Latin American securities markets (De la Torre & Schmukler, 2006), macroeconomic volatility is cited as one of the constant explanatory factors. However, its impact should be more remarkable in times of crisis, which is not the case for Ecuador. A large part of the explanation can be found in its closed nature. Market players are mostly local family-led firms with few or no connections to foreign capital. In fact, between 2007 and 2017, annual Foreign Direct Investment (FDI) in Ecuador represented less than 2% of GDP (averaging 0.67% during the period) and almost none of this limited investment went through the local securities market.³⁷ Additionally, according to the yearly reports

America as part large sets of countries and compare them to other emerging economies.

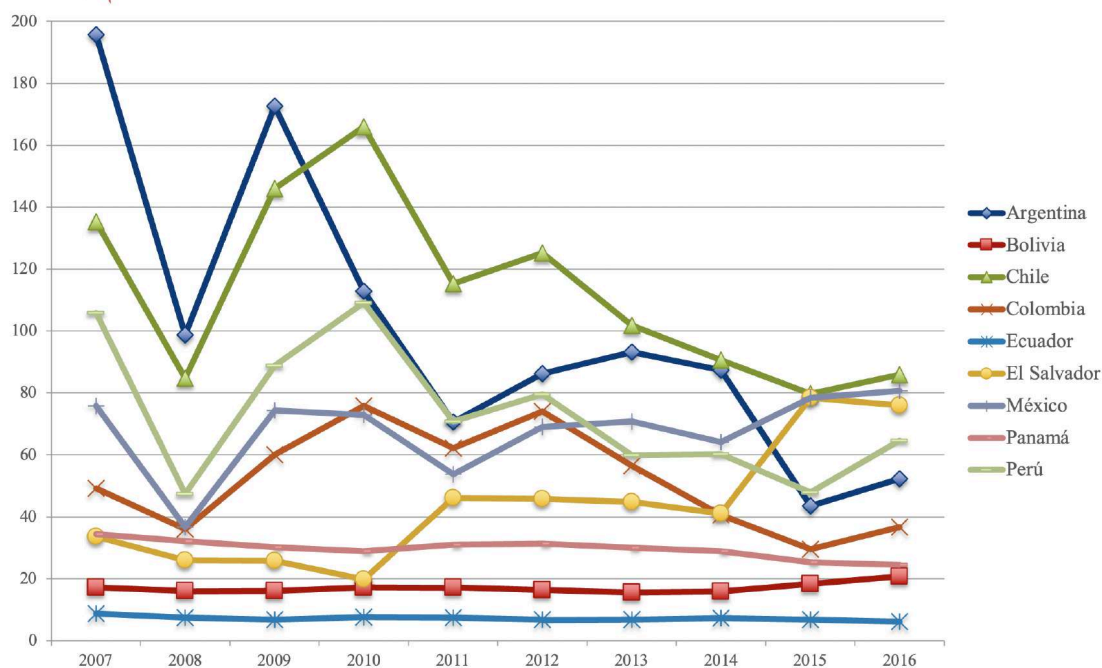
³⁵The Ecuadorian economy shares with Argentina, Bolivia, Chile, Colombia, Venezuela and Peru strong dependence on the production and export of primary goods. Bolivia is perhaps the most similar to Ecuador, as they share dependence on the exploitation of mineral resources and a strong regionalized structure of their economy and economic elites (Wolff, 2016). Venezuela, despite being an extreme case of commodity rentierism (Karl, 1997) should be included in comparisons with Ecuador. Unfortunately, the lack of complete data on Venezuela prevents this. Despite important differences in their productive structure and respective financial sectors, Ecuador shares with El Salvador and Panama the presence of the dollar as legal tender. Finally, I have included Mexico as both countries have the United States of America as their main commercial partner.

³⁶This includes firms listed on both Ecuadorian securities exchanges.

³⁷Between 2007 and 2017, only three exceptions of large share purchases by foreign investors

of the Iberoamerican Federation of Securities Exchanges (FIAB), there was not a single foreign society listed in any of Ecuador’s Exchanges between 2007 and 2017.

Figure 2.3: Market Capitalization as a percentage of GDP. Several countries, 2007-2016



Source: Iberoamerican Federation of Securities Exchanges (FIAB)

If we look at traded volumes as another way to measure market performance, Ecuador is once more at the bottom (Figure 2.4). Trading in Ecuador’s market never exceeded 5% of GDP and shows a downward trend.³⁸ This, once more, reflects the concentration of this market and its lack of liquidity. Additionally, if we break down

through the local securities market occurred (all of them in 2014): the purchase of Industrias Toni by The Coca Cola Company (USD 60.5 million), the purchase of Cementera Lafarge by Peruvian company Unión Andina de Cementos (USD 553 million), and the purchase of Produbanco by Grupo Promérica of Nicaragua (USD 109 million). Large foreign capital has mainly targeted privatization of the oil, electricity and telecommunications sectors in Ecuador. These privatizations did not materialize in the neoliberal years. An example is the failed privatization of several electricity distribution companies documented by Chiriboga-Tejada (2016) where Spanish capitals linked to the Citibank group were interested. Privatizations of those sectors were off the government agenda between 2007 and 2017 and formally banned by the 2008 Constitution.

³⁸An striking case for comparison is the market behavior of Bolivia—the country with the closest political economy—that is diametrically opposed to the trend of Ecuador.

trading into the primary and secondary markets, we find a striking characteristic.³⁹ In [Figure 2.5](#) we can see that trading is strongly concentrated in primary market transactions. In other words, buyers of securities acquire them and to a large extent keep these investments until maturity. This is relevant to two other characteristics of this market: limited development of equity trading⁴⁰ as indicated by previous research on Ecuador's securities market ([Arauz, 2009](#)) and the closeness in the capital structure of family-owned companies in the country ([Camino-Mogro & Barrezueta, 2018](#)).

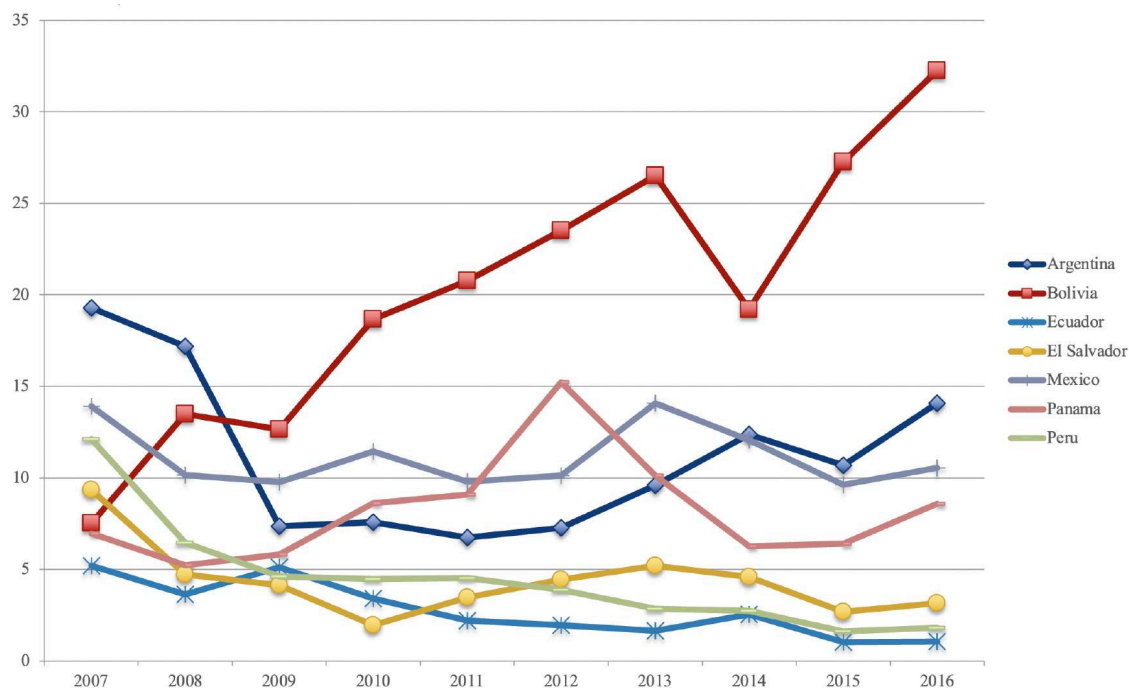
The sustained underperformance of Ecuador's securities market is also noteworthy given two considerations. First, it has occurred despite several legal reforms that have sought to encourage its development, both from the deregulatory perspective of the 1990s and from the model of greater regulation and state incentives.⁴¹ Second, a dollarized economy should facilitate foreign investment flows as can be seen in other cases in the specialized literature on capital markets ([Kaltenbrunner & Lysandrou, 2017](#)). In this thesis I argue that it is in the social life of the market that some of these puzzles can be sorted out without disregarding the role of macroeconomic aspects or the impact of public policy. Some of these social features emerge from the dynamics of the market itself and the way in which actors consolidate their privileged positions or cope with an environment characterized by uncertainty and power imbalances. These features, which include embedded or reciprocal relations,

³⁹The development of secondary markets is a fundamental characteristic of modern and liquid securities markets. Secondary markets are considered to be fundamental for providing a market with liquidity, diversification, reduced transaction costs and fair price formation ([Bhalla, 2008](#)). Secondary market trading is also considered a key aspect for market development in emerging economies as they help markets expand, modernize, and become more competitive ([Arvai & Heenan, 2008](#)).

⁴⁰The development of equity trading is another key feature of modern developed securities markets. According to the SEC, US equity markets in 2014 doubled fixed income markets. In the report by former chair of the SEC Mary Jo White (available at: https://www.sec.gov/news/speech/2014-spch062014mjw#_ednref11), USD 27.8 trillion of equity securities were traded in US markets while there were USD 11.3 trillion in principal amount of corporate bond issues outstanding and about USD 3.7 trillion in principal amount of municipal bond issues outstanding.

⁴¹2007-2017 shows the prevalence of these two models despite coinciding with the post-neoliberal years. On the one hand, state entities were market players even before 2007 and, on the other hand, reforms to the functioning of the securities market were not implemented immediately and culminated only in 2014.

Figure 2.4: Volumes traded as a percentage of GDP. Several countries. 2007-2016



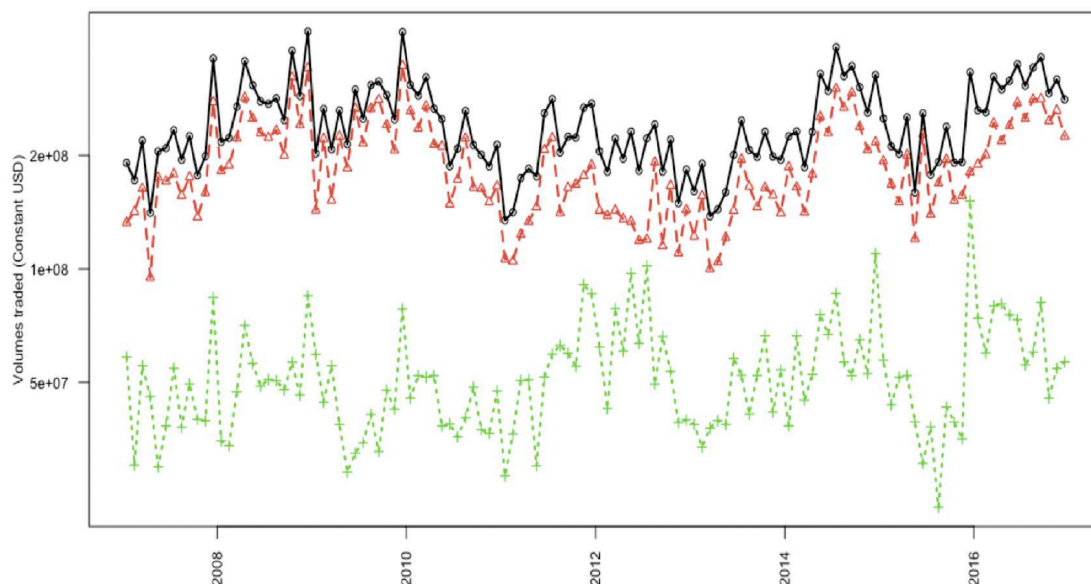
Note: In this graph, data points from Chile are not been included since its volumes are much higher than the rest of the economies, making visualization difficult. **Source:** Iberoamerican Federation of Securities Exchanges (FIAB)

are not exclusive to Ecuador and have been addressed in social studies of finance. Here, I will look at the social dynamics that derive from Ecuador’s political economy and inform the choice of other relevant sociological variables of this research.

2.3.2 The regional issue in Ecuador’s securities market

The regional cleavage between Quito and Guayaquil has marked the history of the Ecuadorian securities market since the beginning of its existence. In the first half of the chapter we referred to the regional organization of the country’s economic elites. Multiple firms belonging to those elites participate in the securities market. The regional issue has two effects on the securities market: on the organization of state regulation and its institutions, and on how relations between private actors

Figure 2.5: Monthly volumes traded in the whole market, primary market, and secondary market (January 2007 - June 2017).



Note: Monthly volumes traded in all cuts of the market are in constant USD and data has been winsorized at 95%. Colors used are: whole market (black), primary market (red), and secondary market (green) **Source:** Superintendency of Companies. Data set created for this research.

within the market are organized. Here, we introduce the issue by looking at the organization of the market and its main institutions.

Although attempts to create markets of this type can be traced to the end of the 19th century, it was only in 1935 that a first commercial exchange started working in Guayaquil a few years after the cocoa boom. Although the history of the market began on the coast, in the following decades the regional cleavage became evident. In 1969 the two securities exchanges that exist today—one in Quito and one in Guayaquil—were created by law. The Securities Market Law of 1993 and its subsequent modifications⁴² clearly speak of a single market, but this does not prevent the

⁴²In 1993, the first Securities Market Law was approved by the Ecuadorian Congress. This law has been amended several times until today and now is part of the broader Organic Monetary and Financial Code.

existence of more than one exchange. This is indeed what has happened to date, and the two exchanges remain despite criticisms and the will of some authorities who have proposed—at different points—the need for a merger or the creation of a single entity.⁴³ This resistance to change that seems illogical for a small, interconnected, and unique market⁴⁴ shows the weight of the historical regional division.

Figure 2.6: The Guayaquil (BVG) and Quito (BVQ) Exchanges



Sources: Archives from Diario "El Universo" (Guayaquil Exchange) and FIAB (Quito Exchange).

State regulation and direct participation in the market has adapted to the regional division. The Superintendency of Companies, Securities Market and Insurances (SCVS, for its Spanish acronym) as the market regulatory entity has two separate divisions to oversee the Quito market and the Guayaquil market. Until today, there is an intendant in Quito and another in Guayaquil with their own teams and resources. Until 2014, the collegiate body in charge of approving regulations for the securities market was the National Securities Council (Consejo Nacional de Valores, CNV, in Spanish), whose members had to respect regional balance: half of

⁴³Details on the history of the Ecuadorian securities market regulations with emphasis on the major reforms proposed and implemented in 2014 can be found in [Lovato \(2013\)](#).

⁴⁴[Bessembinder and Kaufman \(1997\)](#) argue that different stock markets can exist efficiently if they have different issuers and complement each other. This is not the case of the Ecuadorian market where both exchanges trade the same types of securities from the same issuers.

them were to be from Quito and half from Guayaquil. Within the regulations approved by the CNV, the public sector was obligated to invest 50% in the Guayaquil Stock Exchange and 50% in the Quito Stock Exchange as a measure to maintain a regional balance (Arauz, 2009, p.6).

In an attempt to have a national reach, and since the idea of a single exchange has consistently failed, many brokerage houses have acquired a dual license to operate on both exchanges with their respective electronic access. According to Ecuadorian regulations, this also obliges them to be shareholders of both exchanges. In these cases, brokerage houses have their main office in their home city and a subsidiary in the other city. Does this mean that a kind of regionalism in market transactions has been overcome? Whether this coping strategy mitigates the regional issue or not, is widely discussed by market actors and regulators but has not yet been formally studied.

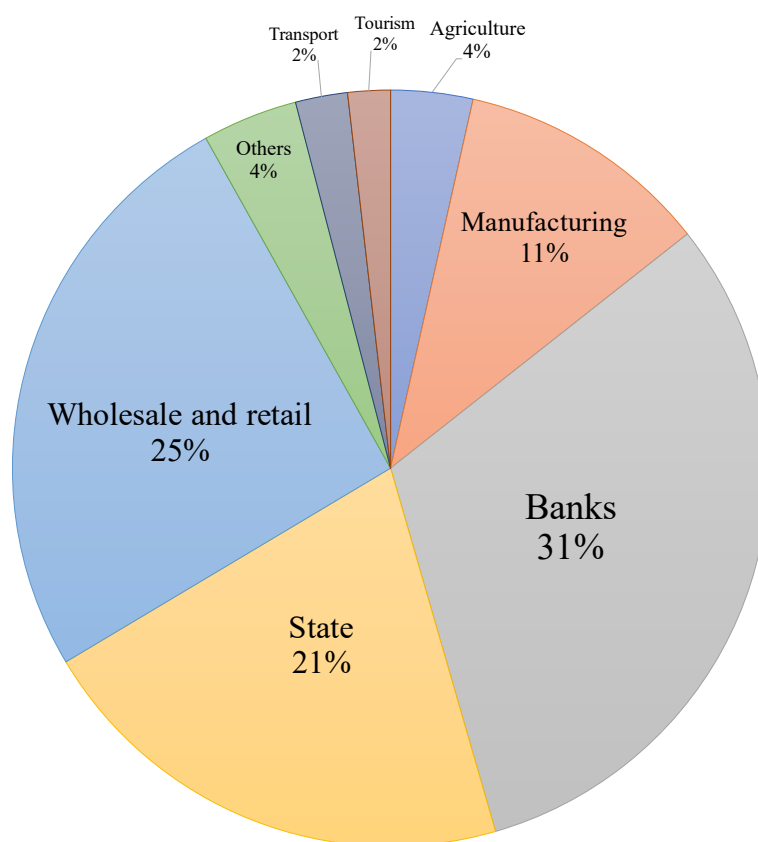
2.3.3 The state and the market

From the oil boom to the present, the Ecuadorian state has managed significant resources that have allowed it to intervene directly in the economy. As previously mentioned, this important presence of the state as an economic actor persisted even in the 1990s and early 2000s under neoliberal governments. In our period of analysis, the place of the state as regulator and economic actor was assumed by Correa's post-neoliberal regime. The importance of the state is also reflected in the way the country's securities market works.

The relationship between the Ecuadorian state and the securities market should be analyzed on two fronts: the evolution of market (de)regulation and the direct participation of state institutions as issuers and investors in the market. If we look at the subject of regulation, many models—and their combinations—have been tried in Ecuador, ranging from the absence of a regulatory framework in the origins of the market, covering the greater deregulation in the 1990s to the latest attempt

to have a stronger regulatory framework that included the state's the capacity to generate incentives. A discussion at the legal and economic level can be found in [Arauz \(2009\)](#) and [Lovato \(2013\)](#), respectively. The latter includes an analysis of how well the Ecuadorian regulatory framework is adapted to international (e.g., IOSCO) standards and compares to regional best practices and to other benchmark cases such as Spain.

Figure 2.7: Sectorial composition of trading. 2007-2017



Notes: The figure shows the percentages of trading with securities from different economic sectors during the entire analysis period (January 2007 - June 2017). These sectors are those to which the issuing firm belongs. The banking sector includes securities from banks and large cooperatives that, in Ecuador, are considered and regulated as banks. This category also includes securities issued by firms related to banks and performing financial activities such as insurance. The "others" category includes transactions in different sectors, which separately represent less than 1%. **Source:** Superintendency of Companies. Data set created for this research.

Without denying the importance of the regulatory discussion, in this research I focus on understanding state liquidity and how this is relevant to the behavior of the rest of the market actors. Even where I concentrate on the relationships between private actors (brokerages and firms), I take two things into account. First, economic action happens within the limits set by economic regulation or at least

always accounts for it (e.g., when economic actors do not comply with the rules). Second, even if we focus on the way private economic actors relate, state liquidity and public market players are a relevant part of the story.

In [Figure 2.7](#) we can see the importance of government liquidity in the market: 21% of all transactions studied involved securities issued by state entities such as the Ministry of Finance, the Central Bank and several public banks. Of the 465 issuers active in the analysis period, the two largest (see [Table 2.2](#)) are the Ministry of Finance and the Corporación Financiera Nacional (CFN), a public bank whose main objective is the financing of medium and large industries.⁴⁵ If we look at the amounts issued, the two entities together generated 48% of the securities traded in the market between January 2007 and June 2017. The securities issued by the Ministry of Finance are basically long-term bonds and short-term treasury certificates aimed at financing fiscal needs.⁴⁶ In the case of CFN, the main securities issued are deposits certificates and, above all, large credit portfolio securitizations.

Additionally, state institutions are important investors in the market. [Table 2.3](#) shows a ranking of brokerages according to their trading volumes (purchases and sales, together), in which several state actors appear. These entities do not need to rely on brokerages and can intervene directly in the market. They do not act as intermediaries and what they trade is only for institutional needs. If we compare these values with those in the previous table, we see that—unlike the Ministry of Finance that essentially offers securities—the CFN ranks high both as a seller and as an investor. In addition, the Banco del Instituto Ecuatoriano de Seguridad Social (BIESS, the bank of the National Pension Fund) appears fifth in the ranking since it

⁴⁵The CFN has been closely linked to the capital markets since its origins in 1948, when it was created by the Central Bank as a branch dedicated to trading mortgage bonds. It was named Comisión de Valores e Industrialización (Securities and Industrialization Commission). In 1946 it adopted its current name and began to specialize in corporate financing ([CFN, 2014](#)). However, it has never abandoned its strong presence in the securities market.

⁴⁶In 2008 an amendment to the Securities Market Law eliminated the previous obligation for two state entities to trade on Ecuador's securities exchanges. Therefore, many of these state-to-state transactions (such as quantitative easing operations between the Central Bank and the Ministry of Finance) are not part of the records of the securities exchanges and are not counted in this statistics.

Table 2.2: Ranking of largest issuers (Top 20) in 2007-2017

Issuer	Volumes issued (USD millions)	Share	Domicile	Sector	Economic Group
MINISTERIO DE FINANZAS	9 622.42	28.5%	-	State	-
CORPORACION FINANCIERA NACIONAL B.P.	6 601.53	19.6%	-	State	-
BANCO DEL PACIFICO	2 214.91	6.6%	Guayaquil	Banks*	-
BANCO DE GUAYAQUIL	1 466.34	4.3%	Guayaquil	Banks	Banco de Guayaquil
BANCO PICHINCHA	1 073.80	3.2%	Quito	Banks	Banco Pichincha
BANCO INTERNACIONAL	1 073.46	3.2%	Quito	Banks	Banco Internacional
BANCO BOLIVARIANO	1 037.22	3.1%	Guayaquil	Banks	Banco Bolivariano
PRODUBANCO	540.34	1.6%	Quito	Banks	Produbanco
DINERS CLUB DEL ECUADOR	507.18	1.5%	Quito	Banks	Banco Pichincha
PRONACA C.A.	358.82	1.1%	Quito	Food processing	Industria Pronaca
BANCO GENERAL RUMINAHUI	322.87	1.0%	Quito	Banks	Banco Pichincha
MUTUALISTA PICHINCHA	307.06	0.9%	Quito	Banks	No group
LA FABRIL S.A.	297.68	0.9%	Montecristi	Food processing	La Fabril
BANCO DE MACHALA	288.44	0.9%	Machala	Banks	Banco de Machala
BANCO PROMERICA	252.81	0.7%	Quito	Banks	Produbanco**
BANCO DEL AUSTRO	242.69	0.7%	Cuenca	Banks	Juan Eljuri
NESTLE ECUADOR S.A.	241.41	0.7%	Quito	Food processing	Nestlé
SUPERMERCADOS LA FAVORITA C.A.	229.84	0.7%	Quito	Wholesale and retail	Favorita - Wright
BANCO PROCREDIT	229.58	0.7%	Quito	Banks	Banco Procredit
BANCO AMAZONAS	224.12	0.7%	Guayaquil	Banks	Banco Amazonas

Notes: The values for "share" correspond to the participation of the issues by the corresponding entity with respect to the total volumes issued in the market during the period. (*) Banco del Pacifico is a private bank owned by the Ecuadorian government after its bailout in 2001. The categorization of economic groups corresponds to that of the Internal Revenue Service of Ecuador (SRI, for its acronym in Spanish). (**) Banco Promérica has been included as part of the Produbanco Group but it merged with Produbanco in 2014. **Source:** Superintendency of Companies. Data set created for this research.

is a large institutional investor. In the Ecuadorian market, the demand for securities investment coming from the BIESS and other important public pension funds (of the police and the armed forces) is quite relevant.⁴⁷

2.3.4 The role of banks and economic groups

The last key feature of Ecuador's political economy that is reflected in the local securities market is the weight of banks and firms belonging to the elite economic groups. Figure 2.7 shows how the largest amounts traded in the market correspond to securities issued by that banking system (31%) followed by firms doing wholesale

⁴⁷In addition to these macro statistics that show the important role of BIESS demand, in my interviews the topic was prominent. Several interviewees, traders and former traders, commented that there are cases of security issuances that are bought entirely by the BIESS.

Table 2.3: Ranking of brokerages (Top 10), by trading volumes in 2007-2017

Brokerage	Trading volumes (USD millions)	Share	Domicile	Economic group
PICAVAL	11 719.28	13.6%	Quito	Banco Pichincha
MINISTERIO DE FINANZAS	9 308.57	10.8%	-	-
CORPORACION FINANCIERA NACIONAL B.P.	9 242.67	10.7%	-	-
VALPACIFICO*	7 424.96	8.6%	-	-
BIESS**	6 985.07	8.1%	-	-
RH ASOCIADOS	3 228.60	3.7%	Guayaquil	No group
MULTIVALORES BG	3 177.17	3.7%	Guayaquil	Banco de Guayaquil
PRODUVALORES	2 845.92	3.3%	Quito	Produbanco
ADVFIN	2 247.53	2.6%	Guayaquil	No group
SILVERCROSS	1 855.85	2.2%	Guayaquil	Banco de Guayaquil***

Notes: The values for "share" correspond to the participation of each brokerage's trading volumes with respect to the total trading volumes of the market during the period. (*) Valpacifico is a private brokerage owned by the Ecuadorian government after the bailout of Banco del Pacifico, its original owner, in 2001. (**) The data corresponding to BIESS (the Public Social Security Bank that was created in 2009) includes trading done before the creation of the bank by the Institute of Social Security (IESS). The categorization of economic groups corresponds to that of the Internal Revenue Service of Ecuador (SRI, for its acronym in Spanish). (***) Silverscross is former Multivalores that was sold by Banco de Guayaquil in 2014. As it keeps close relations to the bank, it has been kept as part of the group in this table. **Source:** Superintendency of Companies. Data set created for this research.

and retail activities (25%) such as the large supermarket chains owned by family-based economic groups such as the Wright Group in Quito. Table 2.2 shows that the majority of the largest issuers in the market are large banks. Fourteen out of the top 20 issuers (Table 2.2), are banks or firms that provide some type of financial service, some of them directly linked to banking groups (e.g. Diners Club provides credit card services and is owned by Banco del Pichincha, the largest bank in the country). The banks that survived the 1999 crisis and whose position was strengthened after the formal dollarization of the economy, such as Banco Pichincha, Banco de Guayaquil, and Produbanco, are currently among the main issuers in Ecuador's securities market. Additionally, these and other large banks were owners and/or maintained close relationships with the main brokerage houses in Ecuador (Tables 2.3 and 2.4). In both tables we see that Picaval, Multivalores, and Produvalores figure within the brokerage houses that traded the most and that moved the largest trading volumes in 2007-2017. Until 2014, when the Organic Law for the Strengthening and Optimization of the Corporate Sector and the Securities Market of 2014 (Ley orgánica para el fortalecimiento y optimización del sector societario y bursátil) provided for their separation, these brokerages belonged to banks and some maintain

Table 2.4: Ranking of brokerages (Top 10), by number of trades in 2007-2017

Brokerage	Number of transactions	Share	Domicile	Economic Group
ADVFIN	30 919	8.7%	Guayaquil	No group
PICAVAL	26 672	7.5%	Quito	Banco Pichincha
MULTIVALORES BG	24 752	7.0%	Guayaquil	Banco de Guayaquil
STRATEGA	22 391	6.3%	Quito	No group
PRODUVALORES	19 230	5.4%	Quito	Produbanco
VALORAPOLO	16 335	4.6%	Quito	No group
ALBION	14 311	4.0%	Guayaquil	No group
SANTA FE	14 276	4.0%	Quito	No group
PLUSBURSATIL	10 435	2.9%	Guayaquil	No group
SILVERCROSS	10 024	2.8%	Guayaquil	Banco de Guayaquil*

Notes: The values for "share" correspond to the participation of each brokerage's number of transactions with respect to the total trading numbers of the market during the period. The categorization of economic groups corresponds to that of the Internal Revenue Service of Ecuador (SRI, for its acronym in Spanish). (*) Silverscross is former Multivalores that was sold by Banco de Guayaquil in 2014. As it keeps close relations to the bank, it has been kept as part of the group in this table. **Source:** Superintendency of Companies. Data set created for this research.

close coordination with their former owners.⁴⁸

The presence of commercial banks in the capital markets is an issue that has been widely discussed without reaching consensus. From a positive perspective, banks' presence as *market makers* can help boost liquidity in these markets. Additionally, banking groups can provide their brokerages with the sufficient financial leverage for certain activities like underwriting. However, there is a big controversy regarding whether to allow or prohibit commercial banks to engage in investment banking activities due to conflicts of interest. On this point, for example, the emblematic Glass-Steagall Act of 1933 provided that US commercial banks could not perform investment banking activities in order to avoid conflicts of interest (Drucker & Puri, 2007). In Ecuador, until the 2014 reforms, commercial banks were allowed to own brokerage houses and perform all types of investment banking activities. Arauz (2009) explains that the Securities Market Law of 1993 expressly reflected how lobbyists from the banking sector managed to keep these types of activities under the control of banks and resist the separation of these activities proposed by some legislators. Among other things, the author recovers some expert hearings that

⁴⁸Several interviewees—current and former traders—of these "bank" brokerages (as several interviewees call them) state that relations with *their bank* were maintained after the formal separation. In some cases, in order to comply with the law, the brokerage houses were sold to former managers.

warned Congress that the presence of brokerages highly capitalized by financial groups would generate a concentration of issuing and brokerage activities. Following the 1993 Law, for two decades, most of the large brokerages in Ecuador's securities market worked as subsidiaries of banks. Although we know that there is a strong presence of the banking sector in the securities market (as issuers, as investors, and even through their own brokerage houses), this research seeks to better understand the impact of this fact on market transactions and performance indicators.

Other than the large banks, four non-bank issuers in the Top 20 of [Table 2.2](#) belong to other elite economic groups according to the Ecuadorian Internal Revenue Service's registry. Companies linked to the processing of agricultural products and family businesses dedicated to imports, retail, and wholesale are increasingly relevant and use the securities market as a financing mechanism for infrastructure expansion projects and new ventures. Despite this use of the securities market, these family businesses are reluctant to open their capital or to have management schemes that exclude family members ([Camino-Mogro & Barrezueta, 2018](#)). The lack of openness of corporate capital also explains why issuing and trading of stocks is not developed in this market.

2.4 Conclusions

The main objective of this chapter was to provide context on the Ecuadorian economy, its securities market and, most importantly, the political economy of the country as reflected in various aspects of the market: the presence of actors and state liquidity, the participation of traditional and new economic elites, and the historical regional division. In particular, the presence and operations of economic groups formed around kinship account for the persistence of traditional features in a modern market. This is something that conventional financial theory, and even some sociological studies focused on the role of technological devices, no longer expect to

find. In the Ecuadorian case, moreover, the regional organization of actors and institutions, in addition to structural social ties, show how a modern financial market continues to be characterized by what [Foureault et al. \(2021\)](#) define as the continuity of neo-patrimonial elements in finance.

All these features inform the selection of questions and variables that will be discussed in the following chapters. These variables account for regionalism, the role of banks, and the closure exercised by powerful actors in the market, together with other devices that have been studied by structuralist sociology, and will help us understand how hiring and trading occur as well as their economic consequences for the actors and for the market itself.

The chapter also presented several indicators of the puzzling development of this market. It certainly underperforms in relation to the standards established for this type of market and to similar cases in the region. Nevertheless, this market has persisted over time as a sort of incumbent in the context of the international expansion of finance and in spite of various efforts to get it off the ground. This makes it an interesting case to revisit and advance what we already know about this type of market. According to [Fligstein \(1996\)](#), the study of incumbent markets—beyond successful cases that have already been widely addressed—is where we can find opportunities for advancement. In this research I argue that the social life of the market—which in some aspects emerges from the political economy of the country—explains several of the puzzles about its particular development.

At the same time, this chapter engages in a critical dialogue with existing literature on the political economy of Ecuador. The most comprehensive research found in the works by [Purcell \(2016\)](#) and [Chiasson-LeBel \(2016\)](#), do not fully engage or lack precision on the issue of dollarization. Two things should be taken into account. First, both the economic groups linked to foreign trade and private banks have consolidated their leading role due to the expectation that dollarization generates on their dollar outflows and inflows. The characterization of Ecuador's political economy by [Purcell \(2016\)](#), for instance, does account for the increased role

of agro-export groups but does not look at the way banks have coped and gained terrain after dollarization. Second, these expectations do not correspond to the real flows, as monetary studies show (Carvajal, 2015; Chiriboga-Tejada, 2017; Weisbrot & Arauz, 2019). This contrast between expectations and actual flows implies a paradox: the actors that have gained power in the context of dollarization do not necessarily contribute to its real sustainability.

In a broader perspective, this sociological study connects with debates on the political economy and financialization of emerging economies. For example, we may ask whether this type of highly embedded market matches rentier economies dominated by a handful of local actors. Several of the securities markets in the Latin American economies mentioned in this chapter have similarities with the Ecuadorian case. In some cases, their performance is alike; in others, it is quite different. The observations discussed here invite more in-depth comparison. Finally, we could further investigate why Ecuador does not completely follow expected patterns of financialization for emerging economies (Bonizzi et al., 2020) except for the avidity of the economic elites to place their wealth in tax havens. Perhaps the particular functioning of its securities market is part of the explanation or a symptom of economic closure vis-à-vis the vertiginous internationalization of finance.

Chapter 3

The chances of hiring and trading

3.1 Introduction

This chapter presents the first part of my empirical work and its findings on Ecuador's securities market. Through qualitative and quantitative evidence I show that a series of social devices exist in this market in the form of hiring and trading strategies that can be studied as firm-to-firm ties. I have categorized them as internalization, reciprocity, inter-bank trading, recurrent collaboration and regionalism. Additionally, the findings suggest that these coexisting social ties explain the occurrence of economic transactions in this market as well as their intensity. This constitutes the first group of evidence of the rich social life of this modern securities market where economic action is embedded in recurrent interactions like those studied in older outcry markets ([Baker, 1984](#)) but also in other social phenomena such as regionalism and power networks.

From a theoretical standpoint, the contents of this chapter constitute the first part of the effort to reopen the unfinished discussion on the compartmentalization of embeddedness ([Baker & Faulkner, 2009](#); [Beckert, 2010](#); [Krippner & Alvarez, 2007](#);

Zukin & DiMaggio, 1990). In addition to showing that repeating ties play a preponderant role in this market, I advance previous research by including reciprocity and internalization to account for the variety of structural interactions that are built over time. More importantly for the advancement of the unfinished discussion, I include the regional dimension and the role of elite economic groups that have been studied separately in similar work and that, above all, are fundamental to understanding this market.

Qualitative evidence from semi-structured interviews with (active and former) traders and CEOs from issuing firms provide the first concrete indications of the existence of a series of social ties in this market. Together with previous theory, this qualitative evidence helped outline hypotheses that were later explored through statistical analysis. For this purpose, several data sets were constructed from unique finegrained records corresponding to 126 months of transactions in this market. In this chapter, I introduce the reader to this data, which was used throughout the project.

The chapter is organized as follows: Section 2 addresses the theoretical background to explaining the coexisting social ties of this market. I highlight my new contribution to the discussion on the integration of various approaches to embeddedness. Section 3 presents the findings from fieldwork and the way they feed into and add nuances to the initial theoretical hypotheses. Section 4 presents quantitative data and statistical models whose results are presented and discussed in Section 5. Finally, Section 6 summarizes the chapter and concludes with a brief discussion on the contributions, limits, and scope of the analysis.

3.2 Revisiting embeddedness

The complex social life of this market can be analyzed by looking at existing social ties and, thus, my starting point is previous scholarship on structural embeddedness.¹ I argue that this single theoretical approach is not comprehensive enough and the discussion on the compartmentalization of different traditions of embeddedness (Beckert, 1996, 2010; Krippner & Alvarez, 2007; Zukin & DiMaggio, 1990) needs to be revisited. Previous works have largely focused at single types of ties, networks, or other social devices and how they influence economic action in markets. Therefore, looking at the role of multiple types of social ties moves forward the discussion on the integration of different traditions of embeddedness that has largely stayed at the level of programmatic statements with very little empirical exploration.

A revisited approach to embeddedness is useful to untangle and understand the rich social life of this national securities market and, at the same time, contributes to the advancement of a highly influential research agenda in economic sociology in the last several decades. In this thesis, I argue that embeddedness is still useful to understand the different forms that modern finance adopts and that bridging different traditions is possible. To do this, I extend the models proposed by the structuralist tradition to include other types of social devices that can be studied as firm-to-firm ties. In the following subsections I outline theoretical hypotheses on the different types of social embeddedness of economic action that can be found in the Ecuadorian securities market. Afterwards, I test these hypotheses against evidence from my fieldwork and with the help of statistical models.

¹The structural tradition of embeddedness has encompassed the works on economic action that focus on ties and networks. Lately, the discussion has been refined to speak of structural and relational embeddedness. Granovetter himself makes this recent distinction (Granovetter, 2017). He refers to relational embeddedness to explain the nature of relations between individuals and associates it to the notion of “dyads.” Granovetter does not speak of dyadic relationships between firms, but only between individuals, which I find limiting. Conversely, he claims that structural embeddedness should look at the impact of the overall structure of the networks into which individuals are embedded. I believe that including the notion of relational embeddedness (including relationships between firms and not just individuals) is a convenient distinction. Nonetheless, I will keep referring to the structural tradition of embeddedness as it has encompassed studies of inter-firm dyadic relationships, as I do in this project.

3.2.1 Repeating (embedded) ties matter

The first question I asked about this market is how the recurrent interactions between actors account for a first component of its social life. The reiterative interactions between the same actors, as mechanisms for navigating markets, their uncertainty, and power imbalances, has been extensively studied for both financial and non-financial markets. Do these repeating ties exist in this non-traditional securities market as we have seen in the more conventional (and more studied) markets in the structural tradition of embeddedness²?

Structural embeddedness researchers look at how ongoing inter-actor ties work. Brian Uzzi was one of the first scholars that took up this task by looking at the way inter-actor ties repeat and become *embedded* through time and thus help reduce uncertainty in exchanges, channel information, and solve problems of coordination between actors (Uzzi, 1996, p. 677). In his work on the apparel industry in New York, he shows that *embedded ties* are significantly present in this type of market instead of it just being an “atomistic mass of discrete firms” (Uzzi, 1996, p. 683). Uzzi looks at the economic impact of these ties, specifically, on the chances of firm survival. He shows that firms that are bonded by embedded ties have higher probabilities of survival up to a certain threshold and that the ideal scenario for a firm is to be part of a assemblage that combines embedded and arm’s-length ties.

Moving into the studies of finance, Baker (1984) pioneered the study of the way interpersonal relations account for the social structure of trading in a securities

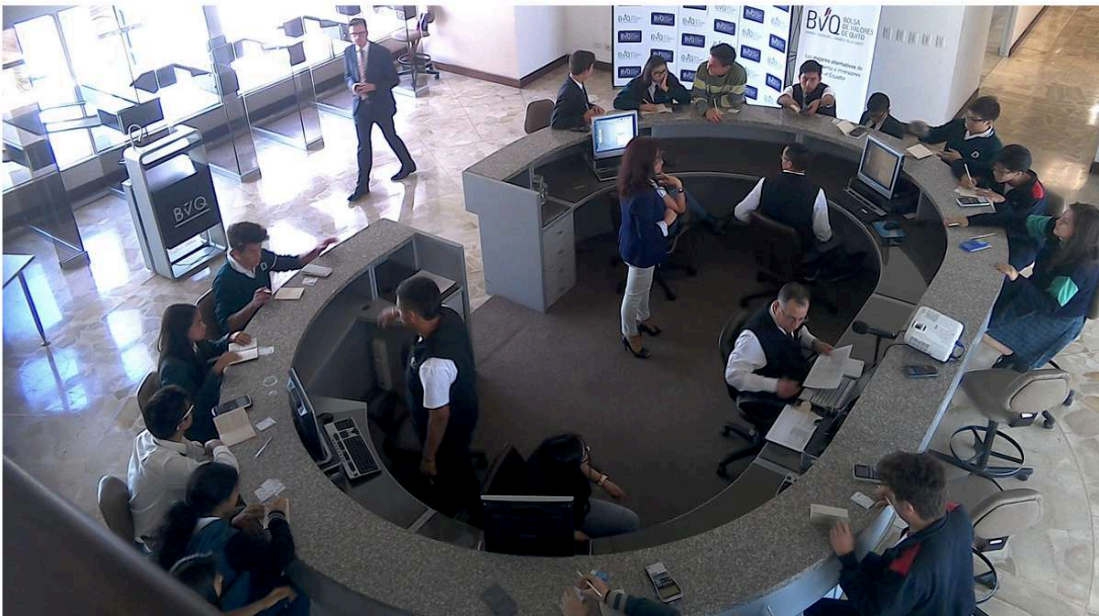
²Polanyi (1944) is normally associated with the earliest use of the term embeddedness while the more contemporary use of the term refers to the work of Mark Granovetter, his adherents, and (of course) his critics. In his 1985 essay Granovetter proposed that the relevant social components of economic action can be studied by looking at structural formations into which economic decision-making is embedded (Granovetter, 1985). While the connection of Granovetter to Polanyi remains controversial (Dacin, Ventresca, & Beal, 1999; Krippner, 2004; Krippner & Alvarez, 2007), his empirical definition of embeddedness as a way to study economic action accounts for previous work by himself and others (Baker, 1984; Granovetter, 1974; White, 1981) and led to further research to apply this definition and give it empirical grounds. All these works make up the structuralist tradition of embeddedness where ongoing ties and networks are the key explanatory devices. Ultimately, in (Uzzi, 1996), embeddedness ends up being of synonym for describing close-knit ties rather than a way of accounting for the relation of economic action with a given social context or with other social devices, which would be closest to Polanyi’s definition.

market. Through participant observation and statistical analysis of trading records from the Chicago Board Options Exchange, Baker explains that social ties between brokers matter and trading is importantly organized into cliques in this outcry market. He criticizes traditional microeconomic theory that claims that market actors prefer to expand their range of action and play selfishly in order to boost their profits. He observes that brokers actually opt to restrict their relationships and rely on close partners to cope with information limitations (bounded rationality) and to overcome market uncertainty. He shows that prices are less volatile when trading in more closed groups, contrary to the expectations traditional economic models. This is a landmark work for the sociology of securities markets. However, Baker's findings apply to an outcry market in the 1970s where social relations took shape on the trading floor. To what extent does this happen in contemporary securities markets that are largely automated as is the case of the Ecuadorian exchanges? Although actors still know each other, the transactions are ultimately conducted through computerized platforms. It is therefore necessary to ask whether repeating social ties studied by structural sociologists still exist in these markets where trading floors are only visited by tourists or as social event venues (as in the case of Ecuador, [Figure 3.1](#)). To which extent do the strategies contingent upon the spatial organization and constraints of trading floors still appear or differ in today's markets?

After Baker's seminal work, the role of ongoing ties has been analyzed to quite some extent in the social studies of finance. These works follow a broader literature that explains that, while some market ties indeed stay at "arm's length," others become embedded over time ([Granovetter, 1985](#); [Macneil, 1980](#); [White, 2002](#); [Zucker-
erman, 2004](#)) and this has important implications for the way ties route information, generate trust, and channel power. They also argue that firms' preference for one or the other type of ties leads to different economic outcomes. For example, [Baker \(1990\)](#) studies the strong ties between US investment banks and their clients that, in the long run, derive into contractual dependence and more costly transactions. [Mintz and Schwartz \(1987\)](#) and [Petersen and Rajan \(1994\)](#) show that arm's-length

Figure 3.1: Quito Exchange's trading floor today

Quito's old trading floor has been replaced by a computerized trading system and is now used for social events of the exchange itself (above) and high-school activities (below).



Sources: Archives from the BVQ and Colegio Británico Internacional.

ties between US firms and their creditors facilitate their access to financing. On the same lines, Uzzi (1999) and Uzzi and Gillespie (1999) show that repeating social ties increase the chances of small firms to get loans and receive lower interest rates in the US credit market. From a perspective that goes beyond recurrent interactions, Boussard et al. (2019) explain that previous personal ties combined with the use of ranking devices explain the chances of deal-making in the French Mergers and Acquisitions (M&A) market. All these works argue that previous collaborations and recurring ties matter as a way to provide trust in these inherently uncertain environments.

This evidence shows that repeating ties matter in financial exchanges. Despite its specific characteristics, Ecuador's securities market is similarly an uncertain environment marked by power imbalances. Even with technological platforms handling transactions and the expectation that prices will be the defining factor in decisions, recurrent interactions still play a role in the Ecuadorian securities market. Relying on theory from other markets and initial evidence from this case, the following twofold hypothesis was initially outlined to be further explored empirically. First, we can expect recurrent ties to be present in the Ecuadorian securities market and to have a significant impact on the likelihood that a brokerage has to be hired by a firm that wants to raise capital in the market, as well as on the intensity of this relation. Second, we hypothesize that the likelihood and intensity of trading is affected by the recurrence of relations between brokerages.³

3.2.2 Trading reciprocity

While works on structural embeddedness have looked at the recurrence or repetition of interactions, some first nuances need to be added before moving on into the issue of bridging different types of embeddedness. In securities markets, repetition is

³Hiring of brokerages and trading between brokerages have been selected as the two fundamental components of economic action in this market. This choice will be explained later in the chapter from theoretical and practical perspectives.

particularly true for hiring relations where the operation can only happen in the same direction ($A \rightarrow B$). For example, when firm A hires investment bank B to issue securities and raise capital, or when firm A hires brokerage B to trade on its behalf. In these cases, a similar inverse relation ($B \rightarrow A$) is simply not possible due to the specific roles and competences of each actor. Obviously, a brokerage or an investment bank cannot hire a corporate or particular client to be their broker. However, reciprocity is possible in other situations and could be a driver of decision-making. This is precisely the case of trading between brokerages.

In the introductory chapter, I noted that reciprocal transactions have been theorized as an element of social exchange (Lévi-Strauss, 1969; Mauss, 1967; Molm et al., 2007) and are considered a key feature of economic networks (Baker, 2012; Baker & Bulkley, 2014). Furthermore, embeddedness researchers have examined reciprocity (Godechot et al., 2022; O'Brien & David, 2014; Uzzi, 1999). In the area of finance, remarkable work has been done on Japanese keiretsu (Bradley et al., 1999; Dore, 2000) where reciprocity has relevant impact on capital market exchanges. However, works looking at financial markets have mostly addressed indirect or generalized network reciprocity (Baker, 2012) between three or more actors. Specific work on direct reciprocity on securities trading has not been done before. In this market, I expect some level of direct reciprocity in trading indicating the existence of social relations that are woven over time. The empirical evidence will increase appreciation of whether and how far this hypothesis holds.

3.2.3 Internalized trading

Most research on financial exchanges addresses them as dyads or more complex network formations.⁴ However, there are economic transactions in securities markets

⁴Other than in the financial domain, structural sociology characterizes the strongest form of closure or embeddedness as a dyad where an actor concentrates on a single counterpart. For example, Uzzi (1997) describes this as an hypothetical extreme case of "first-order coupling" in his research on business relationships between firms in the better-dress sector in New York.

where a single party is involved. I refer specifically to *internalized trading*, an extreme type of preferencing in securities markets where the same brokerage is the buyer and seller in a trade (Huang & Stoll, 1996). Internalization or *cross-trading*⁵ is a very relevant trading strategy in this type of market, together with other types of preferencing that have attracted the attention of regulators, such as dark pools. In large and developed stock exchanges, internalization is quite common. In one of the earliest studies on the subject, Hansch et al. (1999) analyzed a sample of shares traded on the London Stock Exchange during August 1994 and discovered that 62% of the trades were internalized. The Ecuadorian securities market, despite its differences from more developed markets, is no stranger to this feature: 57% of trades studied in 2007-2017 were internalized. The number goes up to 65% when transactions engaging state brokers are excluded. An extreme case was found in the Dominican Republic's securities market where, according to a descriptive study conducted by Torres (2014), between 2011 and 2013, 97-99% of secondary market trades were internalized.⁶

Despite a relevant occurrence in securities exchanges, research in finance has devoted very little room to analyzing internalized trading and its effects. The only existing studies are Christie and Schultz (1999) on the NASDAQ and Hansch et al. (1999) on the London Stock Exchange, that is the most comprehensive. Both works focus on the impact of internalized trading on wider bid-ask spreads of particular stocks with no evidence of impacts on profits or similar. In the social studies of finance there is no trace of internalized trading as an object of study. From these facts, internalization becomes relevant element to be explored.

⁵This is an alternative definition that is closest to the Spanish term *operación cruzada* that is used in Ecuador's market and is defined as "a practice where buy and sell orders for the same asset are offset without recording the trade on the exchange (...) not permitted on most major exchanges (...) [and] occurs legitimately when a broker executes a matched buy and sell orders for the same security across different client accounts and reports them on an exchange."(Definition retrieved at Investopedia. The more widely used and accepted name is internalization or internalized trading as a subcategory or a type of preferencing (Godek, 1996; Hansch et al., 1999; Huang & Stoll, 1996).

⁶This extreme case could be explained by the lack of a formal securities exchange (Portes & Smith, 2012).

While it is true that internalization implies more than the story of *a brokerage trading with itself*,⁷ this particular feature obliges us to reconsider the way we approach ties in the analysis of economic exchanges. Conventionally, dyads have been considered the simplest units of analysis in structural sociology (Simmel, 1950) and, of course, in the structuralist approach to the embeddedness of markets. Social network analysis has also largely set aside the study of *loops*, understood as nodes connected to themselves, to focus instead on binary relations. Nevertheless, a few authors propose the inclusion of loops, such as those that study weighted complex networks (Wasserman & Faust, 1994) or multigraph models (Shafie, 2015).

With all these considerations, the presence of internalization in securities markets obliges us to include loops to study more extreme type closure and its implications in trading.

3.2.4 Bridging traditions: economic elites and the spatial dimension of embeddedness

By looking at recurrent ties and including reciprocity and internalization, our analysis stays within the relational level of embeddedness. However, these devices alone are not enough to account for the rich social life of this market. Factors stemming from Ecuador's political economy, such as the presence of powerful economic groups and historical regional division, cannot be left out of the equation. This compels us to include these other social devices in our analytical scheme. By doing so, this doctoral research faces the challenges and limitations that have been pointed out regarding the compartmentalization of embeddedness traditions (Beckert, 1996, 2010; Krippner & Alvarez, 2007; Zukin & DiMaggio, 1990). Two additional social devices

⁷A caveat: a brokerage that internalizes its trades is acting on behalf of its clients and sometimes for its own portfolio. This leads to a broader discussion about who its clients are and how this way of trading implies that liquidity stays captured within a defined group of players. Unfortunately, financial secrecy norms prevented access to information on the clients of brokerages and limits the scope of the present research. Nevertheless, with the information available, important conclusions can be drawn on the hiring relationships between issuing firms and brokerages through proxies from primary market data detailed later in this chapter.

that coexist and influence economic action in this market are included in my analytical framework: regional polarization and the influence of economic elites. This is done in this chapter by looking at dyadic ties at the firm level. Thus, the devices coming from the structural tradition, the regional issue, and the role of the economic elites in this market, are all studied as social ties.

The inclusion of the regional dimension advances the theoretical discussion a little further despite having almost no empirical elaboration. This inclusion is essential for Ecuador, where a historical regional polarization is reflected in many areas of society and the economy. The most relevant theoretical advancement—emerging from the structural tradition of embeddedness—can be found in [Baker and Faulkner \(2009\)](#) who proposed to study multiple types of coexisting embeddedness by adding the spatial dimension. Relying on the categories used by [Zukin and DiMaggio \(1990\)](#), they propose that the interrelations between structural and cultural embeddedness can be found in the way micro-level exchange behavior interacts with collective outcomes, by looking at the geographical polarization of structures. Baker and Faulkner do not understand geography strictly in terms of places but in a more complex way that takes into account the spatial organization of political and cultural values. Despite the virtue of showing some initial empirical evidence, this paper remains at the level of programmatic statements.

The discussion on different types of embeddedness extends beyond economic sociology. Economic geography's position regarding the topic is not so distant from the Baker and Faulkner proposal to study the *double embeddedness* of economic action into ongoing relations and culture. Economic geography has borrowed the concept of embeddedness to account for the interaction between economic activities and space. Martin Hess, an economic geographer, explains “the evolution and economic success of [certain] regions built by locally clustered networks of firms” ([Hess, 2004](#), p.166) in the context of globalization. He suggests that embeddedness is a useful concept for economic geography but proposes a revision that includes the spatial dimension. He finds that original approaches to embeddedness—especially in Granovetter and Polanyi—are not very clear about the geographical scale of embeddedness. Both

conceptions are not explicit about a particular scale, but it can be inferred that Polanyi works at the nation-state level while Granovetterian embeddedness does not address any spatial dimension at all. In order to include the territorial dimension, Hess suggests that a distinction should be made between three different types of embeddedness: societal, network, and territorial. The first one accounts for the embeddedness that comes from societal backgrounds. He mentions that this can be the case of political or cultural embeddedness that comes from the societies in which actors exist. The second type, network embeddedness, concerns the structures of close relationships an actor is involved in regardless of the society, country, or local environment they are engaged in. Finally, territorial embeddedness speaks directly to the way economic actors are embedded in social dynamics that are specific to a given place. On similar lines to Baker and Faulkner, Hess proposes a new typology for the spatial dimension where different structural, cultural, and political devices are expressed.

Broader discussions on the relationship between markets and societies somehow include the spatial dimension and how it can account for other social arrangements. Extensive work has been done on the way markets reflect the social construction of each society (Albert, 2009; Berger & Dore, 1996; Boyer, Boyer, & Drache, 1996; Hall & Soskice, 2001; Hooks, Hollingsworth, Schmitter, & Streeck, 1995) where this last concept is close to that of the nation-state. There are cases in which a territory smaller than a state can frame a series of structural, political, and cultural devices relevant to economic life. Thus, similar analysis can be transported to the subnational level which is relevant for studying local securities markets. In Ecuador's case, a spatial division accounts for specific sociological and political characteristics of two regions that are associated to its main cities: Quito, the political capital and Guayaquil, the economic capital. This regional division ranges from cuisine and sports to political institutions and, of course, the economy. The *regional issue* has been present throughout Ecuador's history since its independence from Spain and its establishment as a sovereign republic in 1830 (Maiguashca, 1992) and it was

the 1895 Liberal Revolution that consolidated Ecuador's strongly regionalized configuration ([Burbano de Lara, 2012](#)). On similar lines to what Baker and Faulkner understood for geography, the regional issue in Ecuador goes well beyond a physical division and must be understood as a complex politico-historical phenomenon ([Maignashca, 1992](#)). If the economy and markets are impacted by regionalization, it seems plausible that a spatial dimension (understood as the organization shared values and practices in a determined place) works as a key explanatory device for economic action in Ecuador's securities market.

The other social device included in this analytical framework is social ties between elite economic groups. In this case, no explicit effort has been made to study the coexistence of this device with others within the analytical framework of market embeddedness. Nevertheless, the role of the ties and networks of economic groups continue to play a preponderant role in markets and in the elitist reproduction of modern capitalism. [Foureault et al. \(2021\)](#) speak of this as the persistence of neo-patrimonial elements—such as family ties—in modern finance. This is true for the case of Ecuador's securities market whose main actors belong to traditional economic groups usually led by a large bank that actively participates in the market. As it was discussed in Chapter 2, these traditional economic groups are constituted around kinship networks ([Carrión, 1991](#); [Hanson, 1971](#); [North, 1985](#); [North & Clark, 2018](#); [Pástor Pazmiño, 2016](#)). Although these groups favor internal relationships and do engage in conflicts and rivalries with each other, in the Ecuadorian securities market they also cooperate in a generalized manner. Thus, it is important to study a type of generalized cohesion that expresses into joint strategies and ties between actors belonging to this elite. Strong actors in this market operate in a way that resembles how some political elites cooperate. In Latin America, the existence of generalized elite cohesion in politics has been studied for the case of Mexico ([Van Gunten, 2015](#)).

The existence of regional and inter-elite ties, together with repetition, reciprocity, and internalization, and their influence the probabilities of hiring and trading in this market, are explored through fieldwork and statistical analysis in the sections that follow.

3.3 Fieldwork evidence

In this section, I analyze data from specialized interviews with current and former traders, and with CEOs of issuing firms. In these conversations, actors explained the processes of brokerage hiring by firms and the way trading is managed between brokerages. From those conversations I have been able to draw first evidence of the existence of different types of social ties that shape decisions made by firms and brokerages.⁸ This evidence completes and gives more precision to what we know from existing theory and my previous approach to this market. This allows me to formulate more concrete hypotheses on the impact that inter-firm social ties have on hiring and trading.

3.3.1 The social grounds for brokerage hiring

The first step in the process of raising capital in securities markets is issuing. A firm that seeks resources in this type of market will go to a specialized entity for this purpose. In most securities markets, investment banks provide this service. In Ecuador, brokerage houses that are largely dedicated to trading activities are also the only private entities legally entitled⁹ to do investment banking activities and,

⁸In this thesis I focus on inter-firm ties. This does not deny that the levels of inter-personal ties and networks influence inter-firm relations. In some cases there is even an identity between the individual and the firm level, for instance in the small brokerages where traders are the owners of the firm themselves. Their personal decisions are the firm's. In other cases, personal interactions of traders can influence decisions of larger entities. Particularly in this chapter, some of the testimonies refer to the functioning of these two levels and could be the basis for multilevel analysis in the future. However, in this project I focus on the inter-firm level where a number of social devices take shape, including those constituted at the level of personal interactions.

⁹According to Book II, unnumbered article (subsequent to Article 59 and included on the reforms of May 20, 2014) of Ecuador's Organic Monetary and Financial Code, investment banking is described as: "that specialized activity oriented to the search for investment and financing options through the securities market, carried out by entities specially devoted to this activity." The same article explains who has exclusive competence to perform it: "Only brokerage houses and the Banco del Instituto Ecuatoriano de Seguridad Social [the bank of the national social security institution, BIESS] may carry out investment banking activities." The regulation prior to the 2014 reforms did not clearly detail which entities were allowed to perform investment banking activities. Marginally, other actors such as a few specialized law firms could do part of these activities. In any case, most investment banking activities have been historically carried out by brokerages in

therefore, in charge of the process of issuing securities. All active brokerages are available to any client that is interested in their services. All of them have their own websites and their contact information is quoted in the internet portals of both exchanges in Guayaquil and Quito. In principle, best price should rule decision-making and there should be relative indifference in the choice of which brokerage to hire. There are, indeed, differences and competition on prices charged for investment banking services. However, firms that raise capital on the securities market do not necessarily choose who they hire exclusively based on price.

Even if cheaper or more experienced options are available, firms rather stay attached to the brokerages with whom they have worked throughout the years and who they trust. For example, a CEO¹⁰ of several issuing firms in the pharmaceutical sector explained how owners of firms keep working with their traditional brokerages, even when they move to other endeavors:

We trust her and her brokerage house. They do a good job and we have a good experience with them. They are a great team. So, we never looked for another option. In fact, let me tell you something: the last corporate obligations that the company issued were made with another brokerage house. But this was under new management. I already sold most of my shares but I am still there as a minority shareholder. This other brokerage is one that the new owners know because they had already worked with it for the other company they own. (A CEO from an issuing firm in the pharmaceutical sector).

Prices do matter but are used exceptionally by firms, for example, to try *some new* for marginal operations and as a way to negotiate with the brokerages they already work with. For example, the same interviewee that was quoted above explained that they might negotiate prices with their long-standing brokerage but without the intention of leaving them for some other offer.

this market.

¹⁰In issuing firms in this market, the large majority of CEOs are the owners of the company or a member of the family owning the company. This is the case for all CEOs interviewed for this research. This is explained by the strong family-led structure of Ecuadorian firms ([Camino-Mogro & Barzeueta, 2018](#))

Because of the good relationship with our broker, I told her that other one is charging less. We finally agreed on a small discount in the commission that did not match the lower price that the other brokerage charges. However, we prefer her and will keep working with her and her partner. (A CEO from an issuing firm in the pharmaceutical sector).

Interviewees described the choice of brokerages as a personal matter that holds up over time. It is people and known relations that matter when choosing an expert. Another CEO—from a firm with long experience in the market—explained that he does not take risks with cheaper options that he knows offer a high-quality service and that constantly approach him. He holds on to his long-time experts on what he claimed to be a personal preference even when they moved from one brokerage to another:

The first time we worked with them they were actually partners of another brokerage. But we worked directly with them. When they left and founded a new one, you can say we followed them and we work with them until now. It is already 14 years that we are in the market. I am proud to be a loyal client. In my company we are not looking for “one penny more, one penny less.” (...) There are many brokerages that have told me: “why don’t you do everything with me.” I am not fond of taking chances. It is a more of a personal issue to me. (...) I haven’t looked for other alternative brokerage houses that are experts in issuing corporate bonds or negotiable promissory notes, which are the things we do. I know there are others that do a good job, but no. I am not one to be going around taking chances and looking for someone that cuts me a thousand bucks. (A CEO from an issuing firm in the agrochemical industry).

Stories of recurrent work and trust in their traditional brokers were the most constant reasons interviewees gave for choosing experts. The problems of a market divided into Quito and Guayaquil were quite present as well, especially complaints about the fact that there are two exchanges for such a small market. When asked questions aimed at detecting whether they found some sort of regionalism in the way brokerages and experts are chosen, most CEOs were reluctant to answer or directly refused to do so as it is indeed a delicate subject. Their first reaction was usually that they have no problems working with somebody from the other region.

However, later in some conversations, some explained that they end up attached to hiring locally and are indeed approached mostly by professionals from the same city or region. Of course, in most cases they just work with a long-time brokerage that happens to be in their same city or region. It is actually the personal and embedded relation that matters.

A few CEOs who said they have worked with multiple brokerages were straightforward about the existence of a sort of regionalism in the way they hire. They formally justified this due to lack of information on other options and even because they do not like each other. For example, a CEO from a firm located in a large city close to Quito explained that he never considered looking in Guayaquil and, likewise, brokerages from that city have not approached him despite the fact that they certainly see and trade his firm's securities in the market:

I basically can't think of going to Guayaquil because we are so close to Quito in all senses. (...) What happens is that those who provide this service in Guayaquil offer themselves to companies in Guayaquil. They could approach us and say "hey, I see your securities trading in the Guayaquil Exchange, why don't you work with us the next time." But nothing like that has happened. They justify it by saying that they don't know these companies [the ones in Guayaquil] or that they don't like them. I do not personally know a company that is located, for example, here [in his city] that has issued with somebody in Guayaquil. (A CEO from an issuing firm in the pharmaceutical sector).

Local ties and networks were mentioned as a way to explain why hiring can stay trapped at the local level although most brokerages trade in both exchanges and have offices in both cities which, theoretically, gives them access to both regions. Whenever exceptions are made it is thanks to bridging ties between regional networks. A CEO and broker¹¹ from a brokerage house in Guayaquil explained that despite that fact, regionalism persists:

¹¹In small and medium-size brokerage houses, CEO-owners are traders as well. In larger brokerages, usually belonging to banks or associated with them, traders are mostly employees and not necessarily part of the management body of the firm.

Those [brokerages] in Quito work mostly with companies in Quito. We actually have clients from Quito, one or two, but you know what? We reach them through people from Quito, do you understand? I like Quito more than others do. But working there frequently takes me out of my place, which is Guayaquil. (A CEO and trader in Guayaquil).

Another plausible explanation for this type of homophilic hiring can be found on the role of large and regionalized economic groups that are and have been historically present in the Ecuador (Carrión, 1991; Hanson, 1971; North, 1985; North & Clark, 2018; Pástor Pazmiño, 2016). A broker that worked for a large brokerage house that historically belonged to one of largest banking groups in Quito explained that preferences reflect the regional composition of economic groups in the country.

The reason why most of our clients came from the same region is that they are the same large corporate clients from the bank. And the bank has a strong presence in the central-northern highlands of the country, in cities like Quito and Ambato. (A former trader in Quito).

As explained in Chapter 2, large banks are currently at the heart of the key *grupos económicos* in the country. Large brokerage houses, even after the formal separation dictated by the economic reforms of 2014,¹² remain significantly influenced by the leading bank of these large economic conglomerates. The bank dictates the roles for the brokerage house and derives clients that it believes are the most convenient. Those clients—as most interviewees explained—are usually located in the bank’s region of influence. The manager of a large brokerage in Guayaquil explained the importance of the relation with “their bank” that is based in the same city:

It is inevitable that the relationships we kept were dictated by the fact that we were owned by the bank. Being owned by it, we had to align with the bank’s structures. Keep in mind that for banks, the securities market is sort of a transactional complement. It depended on each bank what we

¹²The Organic Law for the Strengthening and Optimization of the Corporate Sector and the Securities Market of 2014 (Ley orgánica para el fortalecimiento y optimización del sector societario y bursátil), which, in the same year, became part of a new Organic Monetary and Financial Code.

could do and not. We couldn't go to any client without the bank knowing about it. The bank had to give us the guidelines and that was logical, it was our owner, it was our boss and it was the one who marked the course for us. Now that we are not part of the bank, I am not going to invent the wheel again: we keep working with the clients that the bank considers to be good clients. (...) This is how we manage our clients, the great majority of whom are from Guayaquil although we have clients in Cuenca and Quito. (A brokerage manager in Guayaquil).

The quotations here are examples of global findings from the analysis of qualitative materials. First, the process of hiring is highly contingent upon personal trust that builds throughout the years. Firms that are experienced issuers in the market stay with the experts they know and trust. This factor takes precedence over other qualities that play a role in choosing a financial service: prices, size of the entity, or prestige . Second, regional ties play a role in the decisions of issuers but to a lesser extent. However, in many cases firms stay loyal to an expert that happens to be based in the same city or region. The main explanatory device seems to be embedded or recurrent relation. Third, the interviews show that hiring based on regional ties is not just a matter of spatial proximity but it rather accounts for the social and economic ties that are built regionally.

These initial qualitative findings back theoretical insights on the relevance of repeating ties on the processes of hiring brokerages in this market. The findings also account for the presence of other social devices such as regional ties and their impact in hiring. Based on this preliminary evidence, statistical analysis will clarify the presence and impact of recurrent and regional factors in brokerage hiring.¹³ Before doing so, I discuss preliminary findings from interviews on the second major component of economic action in securities market: trading.

¹³Qualitative data also indicates the presence of power ties that respond to the dynamics between actors of a same economic group: banks, their clients, and the brokerages linked to those banks. Although it is possible to reconstruct the relationships between banks and big firms belonging to the same economic group through the records of the Internal Revenue Service and the Superintendence of Companies, full data on banks' clients is not available due to financial secrecy. This unfortunately limits quantitative analysis of hiring relations between brokerages linked to banks and the clients of those banks. For this reason, the study of ties within the same economic group (bank, brokerage and client firms) was not included in this thesis.

3.3.2 The social life of trading

After securities are issued they are traded for the first time (primary market) and subsequently (secondary market) until their maturity. Each of these transactions engage two parties: one that sells securities and another that buys them. The purpose of trading is to generate a profit both for the concomitant actors (the clients of brokerages on whose behalf they buy or sell securities) and for brokerages themselves. The trading profit scheme in this market is quite straightforward: clients perceive trading profits (or losses) through the variation in the price of securities and brokerages charge commissions for the intermediary service provided. Nonetheless, my research shows that trading in this market is not only about profit-making operations but is embedded in the social dynamics of the market and the political economy of Ecuador. To start explaining this, I discuss initial qualitative evidence on the existence of repeating, regional, and business trading ties in this securities market.¹⁴

The Ecuadorian securities market is far from being an anonymous setup, although digitization and other uses of technology would perfectly allow it. Trading is far from a series of quotes being matched automatically by a transactional system. Conversely, interviewees commented that the computerized systems provided by the exchanges are largely used to formalize agreements between traders. When asked for details on the way trading works, current and former traders explained that the large majority of transactions are somehow prearranged and only a minority is *played out* in the market. A former trader stated that there is no real application of the laws of supply and demand in trading and described Ecuador's market as the antithesis of what a market is thought to be:

Everything is certain and routine in this market. Actually, I would not

¹⁴A returning caveat: financial confidentiality norms impeded access to detailed information from the clients, except in the records of primary market transactions where it can be largely assumed that the client of the selling brokerage is the issuing firm. This *proxy* will be exploited in the statistical analysis of hiring relationships. With this consideration, the analysis of trading covered in this thesis focuses on brokerage-to-brokerage transactions and these firms' social ties.

call this a securities market. I would rather call it a securities storage where you already know what's in there, what you can get out of it, and there is no attempt to change that. (A former broker from a large brokerage house)

Several types of trading arrangements can be traced on this market. Brokerage-to-brokerage ties are social devices that emerge from the way actors cope with market dynamics and the characteristics of Ecuador's political economy. Based on qualitative evidence, we can account for five types of *socially embedded trading strategies*: internalization, recurrent (or embedded) trading, reciprocity, regionalism and inter-bank trading. The first three (internalization, repetition, and reciprocity) can fit within the structural tradition that studies how actors relate to each other over time in order to cope with market dynamics. The other two show that trading is also embedded into regional and business networks.

Internalized trades are importantly accounted for by interviewees. This evidence is in line with data on capital markets discussed before and with the initial statistical exploration on this market. As mentioned already, this type of trading strategy represents 67% of transactions between private brokerages in Ecuador's market. At its most basic level, internalization is described by actors as a way to maximize profits as it allows brokerages to generate an additional commission for a single transaction. Here I gather a few testimonies that characterize this:

I would say that half of what you [a brokerage house] issue will be internalized so you get the selling and the buying commission as well. (A former trader of a brokerage house belonging to a large financial group)

Everyone tries to internalize because you get profits from the purchase transaction and you generate income from the sale as well. (A CEO and broker from an independent brokerage house)

Internalization is ultimately obtaining both two ends of a transaction by the brokerage house. It implies a double effort of locating the seller and then getting the buyer. Why not internalize if I have the possibility to do

it? Additionally, it means income for me on the buy side, income on the sell side and higher income for the brokerage house. (A CEO and broker from an independent brokerage house)

Largely described by market actors as a way to keep all possible profits for themselves, internalization seems to fit well within the assumptions of neoclassical economic models and their derivations. Nonetheless, this type of trading strategy is not exclusively about profit maximization. In Chapter 5 I argue that internalization helps brokerages foster trust with their clients, as seen in their strategy for managing commissions, which initially appears to be all about the maximization of income.¹⁵ For the moment, I am interested in explaining why internalization is an important trading strategy according to interviews, exploratory statistics, and specialized literature (Christie & Schultz, 1999; Hansch et al., 1999; Torres, 2014).

On similar lines to what happens in firm-brokerage relations, trading is also contingent upon the existence of previous ties. Interviewees explained that prior relations matter when closing a deal and mentioned several reasons. Personal trust coming from past co-working relationships was one reason given. This was found in other studies on deal-closing in financial markets (Boussard et al., 2019; Rider, 2012). A CEO and broker who had worked in several brokerage houses throughout the years, explained how trading decisions are prearranged and based on friendship and previous work contacts (names have been anonymized):

I got along great with broker C since we worked together at Brokerage

¹⁵Two theoretical approaches to the duality of internalization criticized the limits of looking at economic action as driven solely by utility maximization. Economic sociologists do not deny the utility-driven nature of economic action (Beckert, 1996; Weber, 1978) but have long argued that economic actors rely on social devices to cope with the uncertainty and opportunism that characterize markets. A brokerage can avoid trading with others and keep transactions to itself and this can be understood as an extreme strategy to navigate the market. Following Social Closure Theory (Parkin, 2019) we could speak of trade internalization as a strategy focused on maximizing rewards by restricting access to resources and opportunities. Internalization is an extreme form of closure where trading opportunities are restricted to the brokerage itself and its group of clients.

From social closure theory and the scholarship on embeddedness, we know that restrictions are based not only on profit but also on shared social attributes or as a product of the social embeddedness of economic action. Qualitative evidence suggests this double nature of internalization: it is indeed the most utility-driven trading strategy but has other social motivations. Most importantly, this type of tie or strategy is one of the key drivers of trading.

House P. That continued to be true when I moved to Brokerage House S. Wait, even before, when I was at Brokerage House T! Since then we've always been very close. And the same goes for Broker A. We worked together with him and broker C at Brokerage House P. When Broker A was there, we supported each other a lot. Now you see that broker C has his own brokerage house and it's the same: he will tell us when he has some securities available that we can possibly buy and we will tell him if we have something that he can buy for his customers. (Broker J, CEO and broker from an independent brokerage house)

I had the opportunity to speak with one of the other people mentioned in this quote to verify it from another perspective. This other interviewee confirmed the account of how friendly relationships are the basis for privileging certain operations and actors keep their relationships when they move from one entity to another.

Broker C of Brokerage House P has a very good relationship with broker J from the time we all worked together. When Broker J moved to another brokerage house, if we wanted to get some securities trading in the market, the first person who he called was Broker J. This way we concentrated a greater number of transactions with Broker J, not because of a better market position and better price, but because we are speaking of a reliable person you could call to offer a deal. (Broker A, former employee of a large brokerage house)

On similar lines to the role of personal relations, the evidence shows that important institutional relations favor trading and repeat over time. This seems to be particularly true between brokerages that once belonged to banks or that are still attached to large financial groups.

There are strong relationships between the brokerages of the financial groups, as there was always more communication between the banks' treasuries. (A former employee of a brokerage house belonging to a large financial group)

Less than expected originally, testimonies suggest that reciprocal trading is a rather limited strategy and practiced in specific cases by large brokerages linked

to banks. Accounting needs of banks were explained as a key reason behind it. Hence, reciprocity seems to be significantly circumscribed to large brokerages and to specific types of securities traded. A former broker explained how "bank" brokerages (hereafter *bank-brokerages*) chain trading when "their" banks want to boost their technical equity.

In the case of financial groups, there can be a kind of "help me place these securities and I'll buy yours" type of reciprocity, but with a clear accounting reason behind it. For example, Bank A [anonymized] issued bonds convertible into shares that Bank B [anonymized] bought. Bank B issued convertible bonds bought by Bank A. And these transactions were made between the brokerages of each bank. The net result at the end of the day is zero. But it turns out that both are accounted for as technical equity. So, both banks inflated their technical assets in a single accounting movement. (A former employee of a brokerage house belonging to a large financial group)

Similarly to the narratives on hiring, the regional issue between brokerages was one that many interviewees did not feel comfortable addressing. Others felt it was not as relevant except for the fact that Ecuador has two non-specialized exchanges for such a small market. However, there were interviewees who highlighted the role of regionalism in trading and linked it to the influence of large banks that work and have local impact. According to several testimonies, this degree of regionalism is mainly expressed in the use of one or another exchange. The same former broker quoted above explained that, despite the interconnection of both exchanges, regional ties matter:

Normally as a broker you tend to trade on the exchange of your city and this is accentuated in the case of brokerages linked to banks. The banks from the coast and their brokerage houses traded more on the Guayaquil Exchange and the brokerage houses and banks in the highlands traded more on the Quito Exchange. This differentiation was much more noticeable in the coastal banks because the political bargaining power of the head of the Exchange. (...) For example, Valpacífico, the brokerage house of Banco del Pacífico, despite being an entity now owned by the public sector, was always obliged to trade mostly in the Guayaquil Exchange where Banco del Pacífico has traditionally been.

In summary, there are several socially based trading strategies in Ecuador's securities market. Qualitative evidence provides a first approach to understanding the mechanisms that underlie these types of ties: where they come from and what purposes they serve. In conjunction with the analysis on hiring, in the following section I turn to further statistical analysis to sort out the impact of these social strategies on the likelihood of trading and its intensity.

3.4 Data and statistical methods

3.4.1 Data

The main data set used for this analysis consists of the records of all market transactions¹⁶ executed in Ecuador's securities market between January 1, 2007 and June 30, 2017.¹⁷ The original data was requested from the two existing securities exchanges in Guayaquil and Quito by the Superintendency of Companies, Securities and Insurances (SCVS, for its Spanish acronym) for this doctoral project. The original data sets provided were cleaned, merged, and completed with information on economic sectors and domiciles for a total of 565 market actors: brokerages and issuing firms that were active during the period of analysis.

The final version of this principal data set contains several variables for each chronologically ordered transaction. Of these variables, the following are relevant to the analysis of this chapter:

a) Date of transaction

¹⁶This type of behavioral data, accounting for the actual records of transactions, has advantages compared to cognitive data as pointed out by Baker (1984) who also used exchange records for his research on the social structure of a securities exchange and to evaluate its impact on price volatility.

¹⁷This main data set was discussed in the introductory chapter but I repeat and add some details here for the reader's convenience.

- b) Name of issuing firm
- c) Location of issuing firm (city of the firm's headquarters)
- d) Economic sector of the issuing firm
- e) Name of brokerages involved in the transaction (seller and buyer)
- f) Location of brokerages (city of the brokerage's headquarters)
- g) Amount traded in USD

As I mentioned in the general introduction, two of these variables were added afterwards with information from other sources. The information on firms' locations was retrieved from the public company records of the SCVS, the online companies catalogue of business magazine *Ekos* and from the firms' websites. The information on economic sectors of firms was retrieved from the public company records of the SCVS and it is based on the 21 sections defined by the International Standard Industrial Classification of All Economic Activities (ISIC).

To analyze probabilities and intensity of hiring and trading in this market, following previous research done on deal-making in finance (Boussard et al., 2019), two data sets of dyadic connections were constructed from the core transactional data set. The first dyadic data set contains all existing connections between issuing firms and brokerages as well as counterfactual dyads.¹⁸ The second contains all existing transactions between brokerages, including internalized connections (loops, in social network jargon) and counterfactual dyads.

In order to study past ties, the longitudinal dimension of the data is exploited on two different time scales. In the first data set, (firm-brokerage) dyads are aggregated at the yearly level and for the second data set, (brokerage-brokerage) dyads are

¹⁸In network analysis, a point that is often overlooked is the importance of considering units that are not connected to each other (Van Gunten, 2022). In this research it is particularly important to include these counterfactual dyads that show when there are no relationships between market actors.

studied at the aggregated monthly level. In other words, the first data set can be used to analyze the annual contracting of brokerages for security issuance while the second data set can be used to study the monthly trading between brokerages. The decision to have an annualized data set in the first case is due to the fact that even the most active firms in the market may do issuance contracting only several times in a year. In most cases, this happens annually or a few times during the period analyzed. For this reason, it is more convenient to look at these relationships on an annual basis. With respect to the second data set, considering the low liquidity of the market, it is more appropriate to study trading on a monthly basis to the detriment of shorter-term analysis.

3.4.2 Dependent variables: hiring and trading

The two dependent variables that are examined in this section at yearly and monthly level respectively are hiring and trading.

Hiring is circumscribed to the process of security creation: a firm who wants to raise capital in the securities market hires a brokerage¹⁹ to be in charge of the process of structuring and issuing. It is important to note that in Ecuador's securities market, primary market trading is largely performed by the brokerage in charge of issuing the securities. Syndicated issuances—where multiple brokerages are engaged—are extremely rare compared to other markets. This particular feature offers a great advantage: it allows to proxy issuing dyads (firm-brokerage) based on the transactional data available for the primary market.

Trading refers to the key phase when securities are dealt between brokerages on behalf of their clients or for their own portfolios. Trading happens both in the primary market (initial public offering, IPO) and in the secondary market, although

¹⁹As mentioned before, brokerage houses are the only private entities legally allowed to issue and trade securities on behalf of clients. State financial entities can participate in the market directly and without brokerages acting as intermediaries. The present analysis focuses on private actors without underestimating the importance of state participants.

the secondary is not as developed in the case studied. Monthly trading will be studied for the full market (primary and secondary together). In following chapters, the distinction of “type of markets” will be included.

3.4.3 Independent variables

The data sets constructed include several variables that account for different types of hiring/trading strategies that, according to hypotheses coming from theory and my qualitative analysis, are relevant explanatory devices of economic action in this market: (1) recurrent collaboration, (2) reciprocity, (3) internalization, (4) regionalism, and (5) membership in large economic groups. For the analysis, these socially based hiring or trading strategies are depicted as dyadic ties. It is important to note that reciprocity and internalization only apply to trading (brokerage-to-brokerage ties). Finally, ties between actors to elite economic groups will only be studied for trading and not in hiring dyads due to the availability of the information.

To study ties that become embedded over time, I follow the empirical applications of previous research on recurrent collaboration (Boussard et al., 2019; de Nooy, 2011; Gulati & Gargiulo, 1999; Rider, 2012). These works look at how business ties become embedded through repetition. The longitudinal nature of my data allows me to use previous ties as predictors of hiring or deal making while also addressing the endogeneity problem of cross-sectional studies. For this purpose, I created a lagged variable that accounts for the existence of the same tie in the previous period, yearly or monthly depending on the data set and the analysis to be done. In order to study direct reciprocity (Baker, 2012; Blau, 1963; Greenberg, 1980) in trading between brokerages, I included a lagged variable that accounts for the inverted trading relation between brokerages in t-1 (last month). Finally, internalized trading is included by the analysis of loops as described in social network analysis (Shafie, 2015; Wasserman & Faust, 1994) and applying it to this trading strategy that accounts for a brokerage having the role of buyer and seller in the same transaction.

As I have done in previous exploratory work (Chiriboga-Tejada, 2018), I study regional ties through the actors' location. In Ecuador, brokerages are based in the two main cities: Quito and Guayaquil.²⁰ Even if they operate in both exchanges, they are headquartered in one city. Issuing firms are situated in 25 different cities although mostly concentrated in Quito and Guayaquil. With this in mind and in order to simplify the analysis, I grouped firms into two categories: Quito Influence Zone and Guayaquil Influence Zone. This grouping is based as closely as possible on the spatial zones of the politico-historical division between Quito (the highlands) and Guayaquil (the coast) (Burbano de Lara, 2012; Maiguashca, 1992) that accounts for the influence that the two largest cities exert over the rest of the country:

Zones of influence	
Quito	Guayaquil
Ambato	Bucay
Atuntaqui	Durán
Cayambe	El Guabo
Cuenca	Jaramijó
Ibarra	Machala
Latacunga	Manta
Loja	Montecristi
Otavalo	Portoviejo
Riobamba	Puerto Ayora
Sangolquí	Santa Cruz
Tulcán	Santo Domingo
	Tambillo

Once this aggregated location was defined for each market actor, variables that account for “in-domicile” and “out-domicile” hiring and trading were created for the analysis.

²⁰The only exception found in the data was a small brokerage in a coastal city that was active in a single year and for very few transactions. Interviewees confirmed that it was a peripheral actor and, to some, not relevant at all. Therefore, it was excluded from the final data sets.

The last key explanatory variable is brokerages' membership of or close collaboration with in elite economic groups. The absence of this categorical effect means that the brokerage is not dependent on any economic group. Two criteria were used to make this distinction. First, bank-brokerages were owned directly by banks before the 2014 reforms²¹ that provided for their formal separation. In these cases, the SCVS has public records of the ownership. After formal separation, the continuity of the relationship with their former owners is explained by the recurrent business relations as displayed in the quantitative data and corroborated through qualitative interviews. In its dyadic format, this dichotomous variable will indicate whether brokerages belong to elite economic groups.

3.4.4 Estimation

For statistical modeling, hiring and trading are studied in two complementary ways: (1) the probability of their occurrence and (2) their intensity. Both dependent variables are explained conditionally by the presence of relevant firm-to-firm ties (the independent variables described above).

I use logistic regression with cluster-robust standard errors to analyze the role of different social ties on the chances of occurrence of yearly hiring and monthly dealing between brokerages. The occurrence of the event is captured by the existence of the relation in the period studied, yearly or monthly. The absence of the event is accounted for by the counterfactual dyads.

The probability for hiring is explained by the following independent variables: a lagged dummy variable that accounts for hiring in the previous year and a same-domicile dummy variable that shows if the hiring firm and the hired brokerage are in the same region of influence. All models include general time-fixed effects.

²¹I am referring to the Organic Law for the Strengthening and Optimization of the Corporate Sector and the Securities Market of 2014 (*Ley orgánica para el fortalecimiento y optimización del sector societario y bursátil*), which, in the same year, became part of a new Organic Monetary and Financial Code.

Some models include fixed effects on each of the actors involved in order to capture their time-invariant heterogeneity. One model does not use actors' fixed effects and includes location variables for issuers and brokerages as controls.

The models of the probability of trading include independent variables for: internalization (the same brokerage is the selling and buying party), a lagged dummy variable that accounts for monthly repetition, a dummy for monthly reciprocity, a same-domicile variable that accounts for both counterparts being in the same city and a variable for whether both brokerages are related to elite economic groups.²²

An additional variable that accounts for both brokerages sharing the same sector specialization has been included.²³ This relevant variable is not part of the main explanatory corpus and works as a control that accounts for the relationships that may exist because two brokerages work with the same type of securities or with clients from the same business sector.

For the models that use intensity of hiring and trading as the dependent variable, I use linear regression with cluster-robust standard errors. Both dependent variables are arcsine-transformed due to the skewed distribution of data. Arcsine is used as an alternative to $\log(x+1)$ transformation to manage zero values. The same independent variables used for the probability models described above are included, respectively. In sum, this last group of models will explain annual hiring (number of contracts and volumes contacted) and monthly trading (number of transactions and volumes traded) conditionally on the presence of relevant social ties. Fixed effects are used in a similar way to probability models.

²²As commented before, this variable does not show which economic group they are in or if they are in the same group. It tells us whether both brokerages in the dyad are part of one of the elite groups led by a bank. This is why I have named this strategy "inter-bank trading."

²³A brokerage can be specialized in trading securities of a specific sector when, proportionally, most securities it trades are issued by firms from that sector. At the dyadic level, the variable captures whether two brokerages share the same maximum proportional preference for securities of the same economic sector. For example, two brokerages can both be specialized in trading wholesale securities.

3.5 Results

3.5.1 Hiring

Table 3.1 presents logit estimates for the probability brokerages have of being hired contingent upon the existence of embedded ties (previous hiring) and regionalism (hiring within the same region). The existence of past ties has the strongest and significant predictors for hiring (Table 3.1, Line 3). Prior contractual relationships double the likelihood of hiring [$\exp(0.646)$] in Table 3.1, Line 1, Model 7, the most conservative model. This corroborates the hypotheses on the role of previous ties promoting collaboration and facilitating access to resources as it has been studied in other types of financial markets such as commercial banking (Mintz & Schwartz, 1987; Petersen & Rajan, 1994; Uzzi, 1997, 1999) and investment banking (Baker, 1990). In Ecuador's securities market—and in line with findings from fieldwork—this suggests that firms stay attached to the brokerages with whom they have worked before despite the availability of competing offers.

Table 3.1 also shows significant estimates for the effect of regional ties in hiring (Table 3.1, Line 2). However, its effect is much smaller than that of previous ties. Models 6 and 7 suggest that part of the effect might come from repeating relationships (happening locally). The issue of regionalism was not an easy topic to address with the interviewees. However, this finding may also explain why only a few of them spoke about it. It is possible that regional ties play a key role in some cases but it cannot be generalized to a broader range of hiring relationships. Models for number of yearly contracts and the yearly volumes of those contracts will add further elements to understand what is going on with regional ties.

Coefficients for linear models for the intensity of hiring shown in Table 3.2 (yearly number of contracts) and Table 3.3 (yearly volumes issued) corroborate findings of logit models on the likelihood of hiring. The existence of past collaborative ties appears as an important predictor for the number of contracts signed between

Table 3.1: Probability for yearly hiring

	<i>Models</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Previous hiring	0.676*** (0.023)	0.652*** (0.024)				0.669*** (0.023)	0.646*** (0.024)
2. Same domicile			0.049*** (0.009)	0.048*** (0.008)	0.048*** (0.008)	0.028*** (0.005)	0.029*** (0.005)
3. Issuer domicile = Quito				0.006 (0.008)			
4. Brokerage domicile = Quito				-0.004 (0.014)			
Time fixed effects	YES	YES	YES	YES	YES	YES	YES
Issuer fixed effects	NO	YES	NO	NO	YES	NO	YES
Brokerage fixed effects	NO	YES	NO	NO	YES	NO	YES
R ²	0.314	0.330	0.014	0.014	0.067	0.318	0.334
Adjusted R ²	0.314	0.322	0.014	0.014	0.057	0.318	0.326
Observations	47,949	47,949	47,949	47,949	47,949	47,949	47,949

Notes: All regressions are estimated using logistic models with time fixed effects. Other fixed effects, on issuing firms and brokerages, are detailed for each case. Cluster-robust standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

issuing firms and brokerages (Table 3.2, Line 1) as well as for the yearly volumes issued as a product of those contracts (Table 3.3, Line 1). Regional ties show larger and significant coefficients compared to those found in probability models. This is particularly important when yearly volumes issued are studied as the dependent variable (Table 3.3, Line 2). Once previous collaboration and all fixed effects are included (Table 3.3, Model 7), the effect of regional ties approximately multiplies by 1.5 [$\exp(0.449)$] the volumes issued by a brokerage on behalf of the client.²⁴ Hence, the regional issue might not show a large effect on the likelihood of hiring or the number of yearly contracts but it does associate importantly with partnerships that imply large issuing (bigger contracts). A plausible explanation can be identified in qualitative findings where the role of large *grupos económicos* is highlighted in relation to regionalism. Greater demands for capital are indeed associated to larger firms that are usually part of the country's main economic groups. These groups

²⁴A caveat: exponentiation of coefficients to facilitate interpretation of arcsine-transformed dependent variables only delivers an approximate value in proportions.

Table 3.2: Linear estimates for yearly hiring (number of contracts)

	<i>Models</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Previous hiring	2.002*** (0.096)	1.954*** (0.095)				1.980*** (0.095)	1.933*** (0.094)
2. Same domicile			0.154*** (0.026)	0.151*** (0.026)	0.151*** (0.027)	0.091*** (0.016)	0.094*** (0.017)
3. Issuer domicile = Quito				0.011 (0.026)			
4. Brokerage domicile = Quito				-0.006 (0.039)			
Time fixed effects	YES	YES	YES	YES	YES	YES	YES
Issuer fixed effects	NO	YES	NO	NO	YES	NO	YES
Brokerage fixed effects	NO	YES	NO	NO	YES	NO	YES
R ²	0.314	0.329	0.016	0.016	0.062	0.319	0.334
Adjusted R ²	0.313	0.322	0.015	0.015	0.052	0.318	0.327
Observations	47,949	47,949	47,949	47,949	47,949	47,949	47,949

Notes: All regressions are estimated using linear models with time fixed effects. Other fixed effects, on issuing firms and brokerages, are detailed for each case. Cluster-robust standard errors in parentheses. +p<0.1; *p<0.05; **p<0.01, ***p<0.001

are made up of firms that are mostly located within the same region.

Table 3.3: Linear estimates for yearly hiring (USD)

	<i>Models</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Previous hiring	10.095*** (0.366)	9.784*** (0.388)				9.989*** (0.363)	9.683*** (0.386)
2. Same domicile			0.754*** (0.128)	0.734*** (0.126)	0.733*** (0.128)	0.440*** (0.076)	0.449*** (0.081)
3. Issuer domicile = Quito				0.065 (0.127)			
4. Brokerage domicile = Quito				-0.069 (0.204)			
Time fixed effects	YES	YES	YES	YES	YES	YES	YES
Issuer fixed effects	NO	YES	NO	NO	YES	NO	YES
Brokerage fixed effects	NO	YES	NO	NO	YES	NO	YES
R ²	0.323	0.338	0.015	0.016	0.067	0.328	0.343
Adjusted R ²	0.323	0.331	0.015	0.015	0.057	0.328	0.336
Observations	47,949	47,949	47,949	47,949	47,949	47,949	47,949

Notes: All regressions are estimated using linear models with time fixed effects. Other fixed effects, on issuing firms and brokerages, are detailed for each case. Cluster-robust standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

3.5.2 Trading

Table 3.4 shows logit coefficients on the probability for monthly trading between pairs of brokerages contingent upon five independent variables: internalized trading, the existence of past ties, reciprocity, regional ties, internalized trading, and collaboration between bank-brokerages. Internalization is by far the strongest and significant predictor for trading (Table 3.4, Line 1, models 1 and 7). This means that brokerages largely prefer to keep trades for themselves (and their clients) rather than playing the market. Internalization *doubles* [$\exp(0.709)$] the chances of trading. It multiplies it by 1.68 [$\exp(0.519)$] on the most conservative model with all the other variables included. This result confirms findings coming from the fieldwork and adds new elements to understand the importance of this strategy beyond those already explained in other works that are limited to financial analysis (Christie &

Schultz, 1999; Hansch et al., 1999).

On similar lines to what was found for hiring dyads, trading probability is influenced by previous ties (Table 3.4, Line 2, models 2 and 7). Those multiply the likelihood of trading by 1.3 times [$\exp(0.269)$] and by 1.27 [$\exp(0.244)$] in the most conservative model. This supports the findings on the role of repeated collaboration on the chances of trading.

Table 3.4: Probability for monthly trading

	<i>Models</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Internalization	0.709*** (0.031)						0.519*** (0.032)
2. Repetition		0.269*** (0.017)					0.244*** (0.016)
3. Reciprocity			0.254*** (0.018)				0.044*** (0.012)
4. Same domicile				0.074*** (0.011)			0.061*** (0.009)
5. Inter-banking					0.072** (0.024)		0.040** (0.012)
6. Same-sector specialization						0.004 (0.007)	0.002 (0.005)
Time fixed effects	YES	YES	YES	YES	YES	YES	YES
Brokerage fixed effects	YES	YES	YES	YES	YES	YES	YES
R ²	0.248	0.221	0.182	0.172	0.164	0.157	0.308
Adjusted R ²	0.247	0.220	0.180	0.170	0.162	0.155	0.307
Observations	136,045	131,914	131,914	131,914	131,914	119,858	123,600

Notes: All regressions are estimated using logit models with time and brokerage fixed effects. Cluster-robust standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

Regional ties (Table 3.4, Line 4) and trading between bank-brokerages (Table 3.4, Line 5) deliver significant but weaker estimates for the likelihood of trading. This is somehow similar to the findings described for hiring models where this variable did not have a strong effect. Before thinking that the theoretical and fieldwork hypothesis cannot be fully ratified, we should keep in mind that the role of these ties becomes more evident in the following analysis of trading volumes.

Tables 3.5 and 3.6 corroborate the findings on the role of internalization that delivers very large and significant coefficients in the models for the numbers of monthly transactions between pairs of brokerages (Table 3.5, Line 1, models 1 and 7) and also for the models studying volumes traded (Table 3.6, Line 1, models 1 and 7). Internalization is clearly the large predictor for both the likelihood and the intensity of trading.

Regional ties (Table 3.5, Line 4) and trading between brokerages linked to banking groups (Table 3.5, Line 5) deliver significant but not so strong estimates for trading intensity when studied by the number of transactions between brokerages. This is quite similar to the results of logit models for the chances of trading (Table 3.4). However, for trading intensity measured in volumes traded between pairs of brokerages (Table 3.6), both variables deliver larger and significant estimates.

Table 3.5: Linear estimates for monthly trading (transactions)

	<i>Models</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Internalization	2.586*** (0.172)						2.332*** (0.139)
2. Repetition		0.479*** (0.041)					0.396*** (0.037)
3. Reciprocity			0.500*** (0.045)				0.186*** (0.037)
4. Same domicile				0.108*** (0.020)			0.087*** (0.018)
5. Inter-banking					0.125* (0.051)		0.113+ (0.066)
6. Same-sector specialization						0.001 (0.011)	-0.012 (0.008)
Time fixed effects	YES	YES	YES	YES	YES	YES	YES
Brokerage fixed effects	YES	YES	YES	YES	YES	YES	YES
R ²	0.454	0.243	0.199	0.178	0.171	0.168	0.527
Adjusted R ²	0.453	0.242	0.198	0.176	0.170	0.166	0.526
Observations	136,045	131,914	131,914	131,914	131,914	119,858	123,600

Notes: All regressions are estimated using linear models with time and brokerage fixed effects. Cluster-robust standard errors in parentheses. +p<0.1; *p<0.05; **p<0.01, ***p<0.001

Although the full model (Table 3.6, Model 7) suggests that part of the original effect of these two variables decreases in the presence of the other types of ties, both show an important association with trading volume. Regional ties increase monthly trading between two brokerages by approximately 90% [$\exp(0.642)$]. However, when trading involves two brokerages attached to large banking groups their trading volume is multiplied by approximately 2.5 [$\exp(0.919)$].

Hence, regional and banking ties might not show a large effect on the likelihood of trading or the number of transactions but they do associate strongly with large volumes traded. On similar lines to what was found for hiring models, the explanation can be linked to the role of large economic groups. Notably, interviewees referred to the more fluid collaboration and communication between bank-brokerages that are mostly dedicated to big operations.²⁵

The *reciprocal trading* variable deserves a final comment. In likelihood models (Table 3.4, Line 3) and in linear models for the number of transactions between brokerages (Table 3.5, Line 3), this variable yields statistically significant but rather low coefficients. Its effect decreases in full models (Model 7 of both tables). However, in models where the dependent variable is the trading volumes between brokerages (Table 3.6), reciprocity has a relevance that should not be underestimated. Although in the full model (Table 3.6, Model 7), other variables appear to absorb a large part of its effect, reciprocity explains an increase of approximately 95% on monthly trading volumes between pairs of brokerages. This suggests that in trading dyads that involve large transactions—which normally occurs between brokerages linked to banks—a form of reciprocity is present. While it is difficult to draw definitive

²⁵At this point it helps to bring up some qualitative evidence to support this possible explanation. For example, Broker I—a former trader that had worked at a couple large bank-brokerages—explains that although these players are involved in all types of operations, their activities are mainly focused on large deals:

"We are into big deals and we search for those who are like us. So, who is engaged in big deals in the market? The other banking securities houses. I would exceptionally buy from an independent brokerage house that was offering a certificate of deposit worth USD 10,000 from the trader's aunt. Ok, I did this type of stuff sometimes but it was totally exceptional to my normal line of business."

Table 3.6: Linear estimates for monthly trading (USD)

	<i>Models</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Internalization	10.357*** (0.417)						8.231*** (0.280)
2. Repetition		3.111*** (0.202)					2.770*** (0.183)
3. Reciprocity			3.027*** (0.213)				0.667*** (0.135)
4. Same domicile				0.788*** (0.127)			0.642*** (0.099)
5. Inter-banking					1.182** (0.381)		0.919** (0.285)
6. Same-sector specialization						0.057 (0.091)	0.004 (0.060)
Time fixed effects	YES	YES	YES	YES	YES	YES	YES
Brokerage fixed effects	YES	YES	YES	YES	YES	YES	YES
R ²	0.306	0.230	0.189	0.175	0.169	0.162	0.374
Adjusted R ²	0.305	0.229	0.187	0.174	0.168	0.160	0.372
Observations	136,045	131,914	131,914	131,914	131,914	119,858	123,600

Notes: All regressions are estimated using linear models with time and brokerage fixed effects. Cluster-robust standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

conclusions, this could relate to something that stands out in some interviews where reciprocity was described as circumscribed to large bank-brokerages and to specific types of operations for accounting purposes.

3.6 Conclusion

This chapter discusses the first results of this project on the social life of the Ecuadorian securities market. It addresses the first question on whether a series of social devices exist and whether they influence the likelihood and intensity of hiring and trading in this market. I show how a design coming from structural sociology can be enhanced to study these coexisting social devices as social ties at the firm-to-firm level. Qualitative and quantitative evidence suggests that five types of devices exist in this market and can be traced in different hiring and trading strategies: internalization, recurrent collaboration, reciprocity, regional ties, reciprocity, and ties between actors belonging to elite economic groups. Based on this evidence, I provide the first answers to understanding this market and its puzzling existence. At the same time, I begin to overcome the compartmentalization of scholarship looking at the way economic action is socially embedded. This constitutes an opportunity to bridge economic sociology to other domains like economic geography ([Hess, 2004](#)), which have also discussed the embeddedness of economic action.

Qualitative evidence and statistical analysis show that the role of recurrent/embedded ties is determinant to decision-making in finance, as prior works from the have shown ([Boussard et al., 2019](#); [Mintz & Schwartz, 1987](#); [Petersen & Rajan, 1994](#); [Uzzi, 1999](#)). I advance these works by exploring reciprocal relations and by studying internalized trading that obliges us to include loops, a largely neglected figure in social network analysis. To move beyond what structural sociology has done so far, I include the spatial and power dimension through the study of regional ties and those relations defined by the belonging or attachment of several market players to elite economic groups. From a theoretical point of view, this case

study provides compelling reasons for the joint study of several social devices that have been addressed separately in three traditions of embeddedness: structural (or relational), spatial, and power. My theoretical and empirical design can be used to study the latter two dimensions using the structural approach as a starting point and their inclusion enhances it.

This analysis has limitations inherent to its design and to data availability. The statistical models that were used could still omit certain confounding variables despite the use of available controls and fixed effects. There was no intention to derive causal impacts in the way that other research does and the strength of the design is based on the combination of qualitative evidence and statistical methods. Qualitative data from interviews with specialized actors provided initial evidence as a good foundation for the hypotheses that were later tested through quantitative analysis. This is true despite the fact that not all planned interviews could be carried out due to the Covid-19 pandemic. Probably, a greater number of interviews could have yielded more data on the existence and functioning of social ties in this market.

The next two chapters will ask how these socially based strategies are combined and the economic effects they have for the actors and for the market. Evidence presented in this chapter also allows us to raise new questions that were not necessarily considered in the plans for the current project. For example, testimonies about the existence of personal networks and how they influence inter-firm relationships could be studied through a multilevel design and sociometric data collection from a wider group of actors. The data on economic groups could be further disaggregated to go beyond the study of inter-group strategies analyzed in this thesis and also consider the existence of intra-group ties within each elite economic group. Qualitative evidence shows that ties are woven within the economic groups themselves. Despite current limitations on access to information due to secrecy that protects the concomitant parties, we could explore the possibility of working with data anonymized by the control entity as is done for some studies using tax information.

Chapter 4

Differences in the use of trading strategies and their combination over time

4.1 Introduction

In the previous chapter I explained that issuing firms and brokerages rely on a set of socially based hiring and trading strategies that are part of the rich social life of Ecuador's securities market. I examined the way in which these strategies influence the likelihood and intensity of economic transactions. In this chapter I will turn to two additional questions about the puzzling existence of this market. What social factors explain the varying deployment of trading strategies? How do brokerages combine them in the long term? I address these two questions in a single chapter before turning to the study of the economic outcomes of these coexisting strategies in the next chapter.

The existence of a diversity of strategies leads to two issues: first, even if strategies are used by or accessible to everyone (which is the case of this market), not all

actors deploy them in the same way. To the sociological eye, this deployment is not circumstantial and may rather depend on the characteristics or preferences of the actors. Notably within the scholarship of the embeddedness of markets, there is a widespread—yet contested—view that actors with fewer resources or in less favorable positions have more need to use their social ties to navigate the difficulties imposed on them by markets. Second, the existence of several strategies implies that they can be combined in the longer term. While this last point is not easy to address even with the data available here, how different types of social ties work together is a fundamental question for understanding this market and it contributes to what we currently know about the different types of embeddedness and the way they work.

These two issues are addressed in this chapter through the study of the trading strategies that exist in this market: (1) recurrent collaboration, (2) reciprocity, (3) internalization, (4) regionalism, and (5) membership in large economic groups. I have decided to focus on trading because all strategies are present and the larger frequency in their occurrence (compared to hiring) allows us to see more variation and combination throughout the period of analysis.

Regarding the deployment of trading strategies, my analysis suggests that the size of brokerages matters: larger and more resourceful ones rely more on socially based trading. This contradicts previous theory claiming that mostly smaller or weaker players rely on their social ties to cope with adverse conditions (e.g., [Baker \(1990\)](#) for the case of financial markets). Rather, my findings flesh out other theory ([Granovetter, 1995, 2010](#); [Khanna & Rivkin, 2000](#); [Lancaster & Uzzi, 2012](#); [Uzzi & Lancaster, 2004](#)) explaining that socially embedded economic action is not confined to smaller actors and larger players use their social ties the most in order to strengthen their privileged positions.

Several other conclusions from my findings are fundamental to understanding the development of this market. I argue that regional divisions matter in the deployment of trading strategies. Brokerages from the capital, Quito, engage in more

socially based trading than those located in Guayaquil, whose practices are broadly considered to be farther from the standards of a modern market. Additionally, the evidence suggests that trading strategies nuance the development of the secondary market, which may partly explain its underperformance. Finally, certain trading strategies are associated with the hoarding practices of elite economic groups and closed structure of capital in Ecuador.

The second research question addressed in the chapter, on how trading strategies are combined in this case study and beyond it, contributes to the current discussion on the association of different types of embeddedness. A first step in that direction has been to show that various types of embeddedness coexist in this market and can be traced in hiring and trading, as demonstrated in the preceding chapter. To move this discussion forward, we need to consider how these strategies can be used jointly. The existing sociological theory (Baker & Faulkner, 2009; Beckert, 2011; Zukin & DiMaggio, 1990) criticizes compartmentalized traditions of embeddedness but the possibility of bridging them has largely stayed at the programmatic level. In this chapter, I show that, in the longer run, several trading strategies are used jointly by brokerages. This type of analysis is not easy to perform and the existing data has some limitations. Nevertheless, exploratory results will be discussed that can be further developed in future stages of this investigation.

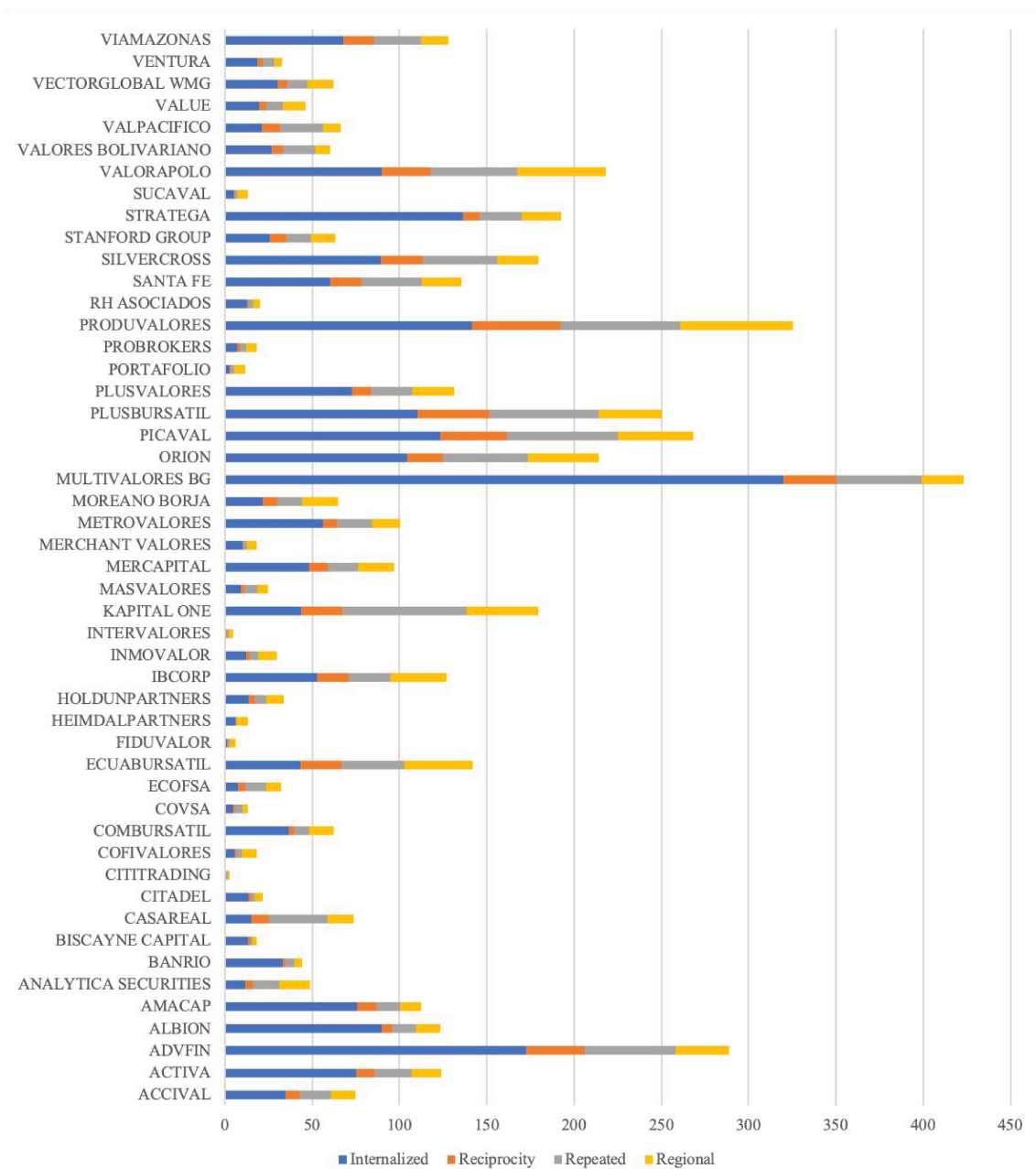
The chapter is organized as follows: Section 2 on the existing theory gives some grounds to my questions on the different deployment of trading strategies in this market. Previous theory is combined with early findings from fieldwork and statistical analysis to produce several hypotheses on the role of the actor's size and location. Section 3 shows how combinations of embeddedness traditions can be useful to explain the development of this market. Once more, with the help of fieldwork I discuss what we expected to find regarding the joint use of trading strategies by brokerages. Section 4 presents quantitative data and statistical models that explore the hypotheses formulated in sections 2 and 3. The results of this analysis are discussed in Section 5. Finally, Section 6 summarizes the chapter and concludes with a brief discussion on the contributions, limits, and scope of this analysis.

4.2 Differences in the deployment of trading strategies

In Ecuador's securities market the socially based trading strategies that are studied in this thesis are used by all brokerages. There are no brokerages that use one or several strategies exclusively. This can be appreciated in [Figure 4.1](#) that shows the average monthly use of trading strategies by each one of the active brokerages during the analysis period.¹ Furthermore, the figure suggests that not all brokerages use the strategies in similar ways. This is not necessarily circumstantial or simply dependent on the preferences of each entity. Therefore we ask whether there are patterns of variation in the deployment of these strategies that respond to social factors, noting that in previous scholarship on the embeddedness of economic action, the size of an economic actor was associated with its levels of embeddedness.

¹Trading between brokerages linked to elite economic groups has not been included in this figure as this strategy can only be used between pairs of brokerages belonging to this reduced group of actors. All the actors that appear in the data set have been included even when some of them are the same entity whose name was modified after a change of ownership. For example, Multivalores later changed its name to Silvercross and Produvalores changed its name to Ecuabursátil. One actor (Valormanta) is excluded from this figure and from the entire analysis. According to fieldwork and trading data, in the period of analysis it had a very limited presence and participation in the market.

Figure 4.1: Strategy usage by brokerage (monthly average, number of transactions)



In the course of this thesis, I highlight that embeddedness explains that socially driven economic action—contrary to traditional claims found in economic theory—is not a barrier to efficiency and to economic development but rather a way actors cope with the inherent problems of uncertainty and opportunism in markets (Beckert,

1996). I have also argued that embedded economic action can come from opportunity hoarding (Tilly, 1998) or access restriction (Parkin, 2019) generated by certain actors in markets. In both cases, actors do not face problems or establish barriers equally. While certain components of decision-making can be particular to each actor, embeddedness or closure responds to social patterns that vary with the distinct capabilities or characteristics of actors.

Structural sociologists explain that actors rely on their social networks to cope with the uncertainty generated by asymmetric access to information (Coase, 1937; Granovetter, 1985; O. Williamson, 1975). In fact, the disparities in access to information are not the same for all actors who, therefore, do not react to this in a uniform way. One potential explanation for the differentiated use of social strategies can be established in terms of rational efficiency: if actors deal with lower levels of uncertainty, they may need fewer alternatives to rational economic action. In this case, stronger players with more resources and, notably, greater access to information may be less dependent on social strategies for coping with uncertainty and opportunism in markets. This is a fairly widespread view in sociology. However, an opposite possibility is that stronger actors with more resources take advantage of their position and hoard opportunities justified on social grounds. This is a first tension that needs to be explored when examining how actors deal with different levels of uncertainty and other situations proper to markets. Conversely, we could assume that actors deal with the same or similar levels of uncertainty. In both cases, do actors rely on their social ties similarly or are there differences that are based on social grounds? This is the first large issue to be explored in this chapter.

The issue of economic actors' different deployment or different reliance on social ties has not been fully explored in the current literature. Thanks to structural sociology we know that social ties and networks exist and play a key role in shaping economic action. Nonetheless, works within this tradition have not explored in detail whether there are social bases for the different reliance of those actors on their ties and networks. For example, Baker (1990); Portes and Sensenbrenner (1993); Uzzi (1996) explain there are distinct levels and types of connectedness between firms

coming from repeated interactions. They mention that this fact derives into different competitive advantages for them. Nonetheless, they do not discuss whether some actors are more prone to repetition or why some rely more on their embedded ties than others even when they deal with the same context. I tackle this unfinished discussion in the case of Ecuador's securities market by asking a two-part question: first, I continue the important debate in previous theory to ask whether strategies are deployed differently by different-sized actors. Second, I ask whether the variation in use of the same trading strategies is based on certain characteristics or attachments that actors have. In the current study of Ecuador's securities market, it is important to ask whether regional anchoring and brokerages' relationships with elite economic groups play a role in the differentiated deployment of their trading strategies. In the following two subsections I address these questions relying on some qualitative evidence with the help of previous literature. Following the design established for this thesis, these first elements are used to construct exploratory hypotheses that are later addressed through statistical methods.

4.2.1 Embeddedness: does (brokerage) size matter?

As mentioned before, one explanation for the difference in the use of trading strategies could derive from actors' access to greater or lesser resources. Whether actors' capital is mobilized to mitigate problems or whether it is used to close opportunities, there could be a "size effect" on the way the same or similar strategies are deployed. A recurring explanation in sociology is that actors with lesser resources rely more on their social ties to counterbalance and overcome the difficulties they face. Within the social studies of finance, we find this type of rationale. [Baker \(1990\)](#), for instance, explains that firms seeking financial resources use their long-lasting market ties to offset the power exercised by investment banks. According to his study of the US investment bank market between 1981 and 1985, corporations deliberately combined embedded ties with diversified hiring in order to reduce their dependence and costs imposed by big players.

Other research contests this vision. [Granovetter \(1995\)](#) criticizes economic and social theory claiming that social ties act like a barrier to the expansion of businesses and prevent economic organizations from realizing their full potential. He calls upon several cases studied previously by Clifford Geertz and Alice Dewey of Chinese entrepreneurs in South East Asia. These cases show how large industrial empires are built on socially embedded relations in the form of cultural and family connections. Additionally, existing literature on kinship and business groups suggests that the economic success of firms is not in contradiction with their high levels of social embeddedness ([Granovetter, 2010](#)). For instance, in their study of Chilean business groups, [Khanna and Rivkin \(2000\)](#) explain that firms belonging to large economic groups show better stock market performance and the existence of kinship nexus among those firms is the driver of successful investment attraction. In specific research on market embeddedness we find some similar explanations. For example, in the work of [Uzzi and Lancaster \(2004\)](#), later expanded on [Lancaster and Uzzi \(2012\)](#), we see that high-status and successful consulting law firms in financial markets rely importantly on their status and social ties to consolidate and strengthen their positions.

In summary, existing research suggest that the *size* of actors, defined by the amount of resources available to them, does play a role when analyzing who mobilizes the highest levels of socially embedded action. Yet, studies go in different directions: some suggest that larger economic actors are less likely to do it while others argue that weaker ones need to rely more on their social ties. These explanations are not necessarily contradictory as the size effect may vary depending on the type of market, the case studied, or other factors. Keeping these possibilities in mind, what happens in Ecuador's securities markets and particularly in the case of trading? Is there a relevant impact of the size of the brokerages and, if so, is it associated with greater or lesser deployment of socially embedded strategies?

From the qualitative evidence in the preceding chapter, we recall that past-collaboration ties are used by traders from small brokerages to help each other close transactions within a framework of greater trust (see Broker A in quote at

page 96). Nonetheless, past-collaboration ties are also used by traders from larger brokerages that have access to other types of strategies. Interviewees working (or having worked) for bigger brokerages spoke of their past-collaboration and friendship ties as fundamental for closing deals in the market. For example, the CEO (and broker) of a large brokerage firm, which handles a significant volume of business in the market and is also linked to a large financial group, explains how trading is done on the basis of his personal networks and those of his brokers:

We manage it [trading] through the brokers. They have their close friends, they speak their own language, they know each other, they gossip about everything, they know what is going to be available. (...) The traditional way to do it is to pick up the phone and call. "Hey, I have this paper." That's the one I prefer. (...) I already know who buys what and I prefer that we do it with them. We even have a WhatsApp group where you can say: "hey, I'm looking for something or I have this available to sell." (A trader and CEO of a large brokerage)

In addition to mobilizing personal networks, traders from large brokerages explained how they use other types of strategies for specific purposes. In the preceding chapter for example, I presented a testimony (quoted in page 98) that explains how banks use their brokerages to trade each other's convertible bonds as a way to boost their technical equity. This trading strategy is unique to large *bank-brokerages* which, despite the rivalries that exist between them, shows the existence of cooperation among the elites. I bring these examples up again to show how the largest and strongest brokerages mobilize a wider spectrum of socially based trading strategies.

The qualitative evidence is not sufficient to derive conclusions from it alone. Notwithstanding, in order to test it statistically, we can presume that larger and stronger actors mobilize more of their social capital and different trading strategies. This contradicts the more traditional position that embeddedness is mostly mobilized by players needing to offset powerful counterparts (i.e.: Baker, 1990). Conversely, I expect trading strategies in Ecuador's securities market not to be confined to smaller brokerages. Proportionally, larger players seem to use the strategies

most to strengthen their privileged positions and those of the players they represent. Hence, a first exploratory hypothesis to be tested statistically is that:

H1) Larger brokerages make the greatest use of socially embedded strategies.

It is important to note that in Ecuador's securities market, large brokerages generally belonged or are linked in some way to large economic groups that are usually organized around a financial institution. For instance, four of the top five bigger brokerages in the market belonged or are linked to a large banking entity. Two elements nuance this fact: first, a few independent brokerages also handle large numbers of transactions and volumes of business (like RH Asociados) and, second, not all bank-brokerages can be considered big players of the market. For example, the smallest player in the market is Cofivalores, a brokerage attached to the (now disappeared) Cofiec bank. Based on these considerations, I include an additional hypothesis on the specific relationship a brokerage's links to large economic groups and its deployment of trading strategies:

H2) Brokerages linked to economic groups make a larger use of socially embedded strategies.

It is important to mention that both hypotheses H1 and H2 have been expressed in general terms and without speaking of each of the five trading strategies that are used by brokerages. Doing so would imply detailing multiple subhypotheses. This choice is partially explained by the exploratory character of these hypotheses and because there is no fine-grained evidence available to help hypothesize on each trading strategy. Nonetheless, in the statistical section of the chapter we will be able to appreciate the differences in the use of each trading strategy.

4.2.2 Regional differences in trading

An unavoidable discussion in the case of Ecuador's securities market is the role of the country's regional issue ([Burbano de Lara, 2012](#); [Maiguashca, 1992](#)). In Chapter 3, I explained regionalism in brokerage hiring and the relevant impact of regionalism on the probability of trading. After accounting for the existence of this type of *regional embeddedness* in hiring and trading, in the current chapter I move into exploring the impact of brokerages' territorial anchorage on the display of trading strategies.

This question is very relevant to the case of Ecuador and is not alien to existing theory on the connections between embeddedness and space, a topic that has already attracted attention in the social sciences. For instance, the geographical concentration of social ties and networks has been pointed out in sociology and economic geography. [Hess \(2004\)](#) studied the existence of relevant firm networks that are clustered locally as a way to explain the success of certain economic regions such as Silicon Valley. According to him, the way social networks organize on the basis of space constitutes a type of regional embeddedness. In sociology, [Baker and Faulkner \(2009\)](#) speak of the geographical polarization of economic networks in an attempt to show how different types of embeddedness work jointly.²

On similar lines to those works, Ecuador's regional division has an effect on the organization of economic action. A few studies ([Arauz, 2009](#); [Chiriboga-Tejada, 2018](#)) already characterize Ecuador's securities market as "a tale of two cities." The most striking evidence of this regional division of the market is the existence of two exchanges, one for each city, for such a small and interconnected market. The large majority of brokerages participate in both exchanges and are forced to have duplicate operating licenses and trading venues in each of the exchanges. Additionally, the regulatory authority itself (the SCVS) has two departments devoted to market supervision: one for Quito and one for Guayaquil. It is expected that the double structure in the institutional organization of the market and its regulation, extends

²The specific issue of the combination of different types of trading strategies will be addressed later in the chapter.

to the organization of existing trading strategies.

My approach differs from previous work on regional embeddedness. Unlike in the cases mentioned by [Baker and Faulkner \(2009\)](#) and [Hess \(2004\)](#), in the Ecuadorian market there is no clustering or marked polarization of social ties. This way of addressing regional embeddedness is not appropriate where trading strategies are used to some extent by all brokerages.³ However, I analyze whether their location in Quito or Guayaquil, including features like proximity and cultural differences, associates with the different levels of brokerage reliance on each trading strategy. Specifically, I ask whether brokerages from one city or the other are more likely to use each of the existing socially embedded trading strategies. Again, in order to build more grounded hypotheses, I turn to evidence from my qualitative data.

Despite the expected limitations of dealing with a taboo topic, I was able to gather relevant testimonies in which market actors themselves characterize the regional way they work and relate to each other. In their testimonies, several elements are in tension. On the one hand, I find a generalized narrative that speaks of *two markets* that are diametrically different in the way actors handle things: a "formal" environment in Quito that tries to resemble the models of securities markets in developed countries, contrasting to an "informal" market in Guayaquil based on personal networks and not following established procedures. On the other hand, the interviewees nuance this initial view and show that actors from both cities operate within the strong influence of their social milieu. In the paragraphs that follow, I analyze some key examples of testimonies that characterize this puzzle.

First and foremost, the former and current traders interviewed agree with the broad public narratives of this market, which largely characterize Quito as closer to modern international standards and with more advanced levels of professionalization, while Guayaquil is more of a chiefdom structure, heavily influenced by local politics and where relationships are more informal. According to them, some actions on the latter even border on unorthodox practices. Although several interviewees

³Seen in [Figure 4.1](#)

avoided or dodged the issue, others confirmed this characterization of two different markets. Interviewees explained that the traders' world in Quito is more focused on technological development, the generation of analytical skills, and formal processes carried out by professionals who are usually trained abroad. Conversely, brokers in Guayaquil are portrayed as more informal, less concerned with degrees and analytical skills, while privileging the construction of direct relationships with their clients and other market participants. A quote from a CEO and broker of a small brokerage firm in Guayaquil illustrates this characterization:

The stereotype of guayaquileños and the stereotype of quiteños in our securities market are very different (...) The guys from Quito show off and try to say they are economic specialists, that they make a deep analysis of how the Ecuadorian market is developing and of the impact of public policies. Guayaquileños are not interested in that. In Guayaquil there are no big degrees that sound very nice or fancy analytical capacities. What is their strength? To tie up business and create loyalty. (A CEO and broker from an independent brokerage house in Guayaquil)

Based on the general opinion about the market and the impressions of the actors interviewed, one could rush into thinking that Ecuador's securities market is divided into one with strong social embeddedness (Guayaquil) and another (Quito) closer to the Fontaines-en-Sologne strawberry market studied by [Garcia-Parpet \(2007\)](#), who argued that extreme rationality was possible with economic advice. We could therefore risk hypothesizing that actors in Guayaquil are more likely to mobilize socially based strategies than their Quito counterparts. However, interviewees from both cities nuance the original characterization when they consider the importance of personal connections, local ties, the role of banking groups, and general networking for both the well-trained and technically skilled Quito brokers and the more informal Guayaquileños. The CEO who gave the testimony cited in the previous section ([page 124](#)) about the important use of personal networks to finalize deals is from Quito. Similarly, in the quote I recovered in the previous chapter ([page 96](#)) to explain the collaborative ties that persist even when traders move to another brokerage, the traders referred to are also based in Quito. We see in these testimonies that Quito's

traders rely on their social capital to do their work and this cannot be claimed to be exclusively or predominantly done by actors from Guayaquil.

Regarding the actors in Quito, another element adds information about their differences from those in Guayaquil. The role of political networks involving market actors and government actors is most prevalent in Quito. This makes sense given the historical importance of the centralized bureaucracy in the capital (Andrade & Nicholls, 2017; Coronel, 2022; Maiguashca, 1992), even if there are regulatory institutions located in Guayaquil as a product of the regional division. Data from interviews suggests that the weight of these networks is more important in Quito than in Guayaquil, where business networks play a greater role. Another quote from my interview with Broker F illustrates this point well:

In Quito, they have more contacts in the public administration. Many have good connections because a relative, maybe a cousin or a nephew, works in this or that ministry. A Guayaquileño does not privilege this kind of contact. He's more likely to tell you about his business contacts, that is, his uncle or cousin who works in a big company, and how they've helped him work with them and things like that. Here the contacts are in the private sector, and in Quito you have a lot of people who are well connected to the government. (A CEO and broker from an independent brokerage house in Guayaquil)

This initial evidence from fieldwork suggests that even though they respond to distinct *habitus* (Bourdieu, 1972) that account for differences in the way they relate and work, brokers from both cities are not radically different in the way they mobilize their social ties. With all this in hand, we can outline two conflicting hypotheses to be resolved through statistical analysis. On the one hand, the importance of regionalism leads us to think that there could be some kind of difference in the use of different trading strategies by brokerages. If this is true, should we say that actors in Guayaquil or Quito are more prone to socially embedded trading? At this point, it would be hasty to hypothesize in favor of Guayaquil brokerages relying more on social ties, since these are also very important in Quito. On the other hand, there could be no significant regional difference. Based on conflicting evidence, considering

the existing literature on the subject, I believe that the most appropriate approach is to test a general hypothesis with two alternatives:

- H3a) The regional anchorage of brokerages makes a difference in the deployment of trading strategies.
- H3b) The regional anchorage of brokerages makes no significant difference in the deployment of trading strategies.

Similarly to the previous two hypotheses (H1 and H2), and given the exploratory nature of several subjects addressed in this chapter, H3a and H3b are formulated in very general terms. They do not specify each of the five trading strategies that can be used by brokerages, which would imply having ten different hypotheses. Yet, in the statistical analysis, we will be able to distinguish the differences (or not) in the use of each of the trading strategies studied in this project.

4.3 Different types of embeddedness working together

In Chapter 3, I introduced the critique on the compartmentalization of embeddedness traditions (Beckert, 2010, 2011; Krippner, 2004; Krippner & Alvarez, 2007; Zukin & DiMaggio, 1990) because this study needs to overcome this limitation to explain how multiple social devices play a role in the puzzling development of the Ecuadorian securities market. That chapter addressed a first part of the task by empirically demonstrating the coexistence of different types of hiring and trading ties. However, if there are several types of socially based strategies, the question is whether and to what extent brokerages use them together. Do brokerages rely consistently on several types of trading strategies? Figure 4.1 shows that brokerages in this market use all strategies in their monthly operations. However, those

descriptive statistics are not sufficient to know whether there are combinations of strategies that are preferred over time.

Why does this thesis have a section devoted to possible combinations of trading strategies? First of all, to give completeness to the reading about the social devices that coexist in this market. In this sense, the purpose is to start exploring whether there are specific arrangements or even hierarchies of strategies. From a theoretical point of view, this advances the discussion on the combination of different types of embeddedness. More importantly, the initial findings are important for the economic outcomes of the different social ties of this market (see Chapter 5). Thus, if there are indeed combinations of strategies, this will allow us to ask new questions on how the combinations mitigate or amplify their outcomes.

Addressing this issue in detail was not an easy task, given the scope of this research and currently available data. Beyond the specifics of this project, these difficulties may also be part of the explanation for why there has not been much empirical progress in research on this to date. Other than some programmatic guidelines, very little work empirically on the combination of embeddedness that could serve as a basis for confirmation, advancement, or refutation. However, the current data of this project has allowed us to obtain some evidence and statistical results on the issue that will be discussed here. These are exploratory in nature and are intended to encourage future stages of this project. Below, I will briefly discuss the limited state of theory before turning to the empirical evidence and the first question on the social basis for the deployment of trading strategies.

4.3.1 Integrating different types of embeddedness: existing literature and its limits

As I mentioned earlier, some scholars such as [Krippner and Alvarez \(2007\)](#) are rather pessimistic about the possibility of integrating traditions of embeddedness. Their assessment is that it is a challenging and potentially fruitless task. Other

scholars are more optimistic and state that we should be able to account for the interconnectedness of different dimensions as it is a fundamental but still unresolved contribution of embeddedness research. In [Zukin and DiMaggio \(1990\)](#) and [Beckert \(2010, 2011\)](#) we find relevant programmatic calls for the integration of embeddedness approaches. In Zukin, it is presented as a matter of integrating political economy and organizational issues. Beckert calls for a theoretical synthesis that takes into account the complexity of embeddedness and the way different macro-structures interact in determining outcomes such as prices. However, both agree with Krippner's and Alvarez's critique that little empirical effort has been made to see how different social devices can work together. With few exceptions, this diagnosis remains valid today.

A key attempt to bridge embeddedness traditions in [Baker and Faulkner \(2009\)](#) adds the spatial dimension. Relying on the categories used by [Zukin and DiMaggio \(1990\)](#), they propose that the interrelations between structural and cultural embeddedness can be found in the way micro-level exchanges interact with collective outcomes. According to them, we can see this interaction in the geographical⁴ polarization of networks and shared values. Although this proposal could be applied to the interaction between economic networks that are clustered in specific territories, the authors conclude by proposing four ideal types of *double embeddedness* between the social cohesion of different populations and shared values in the USA and Europe. As far as my research is concerned, this discussion is useful as it speaks of the spatial organization of networks and other social devices that could be applied to the case of markets. I referred to this proposal and its limitations when discussing my hypotheses H3a and H3b. However, Baker and Faulkner do not refer directly to (financial) markets nor, more importantly, to how different types of social ties, responding to different traditions of embeddedness, can work together.

⁴The authors understand geography in a complex way that takes into account the spatial organization of political and cultural values. They rely on [Coleman \(1994\)](#)'s proposal of different levels of analysis (macro-micro) to suggest that social embeddedness in networks happens at the micro level and different types of networks are found in different places that take into account the spatial organization of political and cultural values.

Closer to the exercise I propose, [Boussard et al. \(2019\)](#) explore the intersection between the structural tradition of embeddedness and the more recent literature that takes into account the role of technical devices in markets ([Callon, 1998](#); [Muniesa, Millo, & Callon, 2007](#)). They rather see how social ties interact with technical devices that help tackle uncertainty in markets. Specifically, they examine the joint role of personal ties and rankings in the chances of deal-making in the French Mergers and Acquisitions (MA) market. This work is useful for my research as it examines how ties become embedded through repetition. This is one of the types of social trading strategies that I find in Ecuador's securities markets. The difference with my work is that while they look at the combination of two trust devices (social ties and rankings) in deal-making, I propose to study the joint use of a set of different types of social ties over time.

4.3.2 Joint use of trading strategies: initial evidence from fieldwork

Once more, fieldwork can provide some evidence to guide this exploration of the way brokerages use trading strategies jointly. This evidence is unfortunately limited, but at least one possible pattern could be recovered from the interviews. According to some interviewees, internalization is used to the greatest extent possible before "playing the market." However, playing the market does not necessarily imply setting a bid or asking for a quote and letting the electronic system make the match. When internalization is exhausted, the interviewees claim to move on to trading based on the ongoing relations that have been built over time. For example, a CEO and broker from a large independent brokerage explains how they internalize first and then they move to personal ties when they sell securities in the primary market:

Normally when we issue securities, we aim at having at least 80% pre-sold and the remaining 20% we open to the market. However, this does not mean we tell the rest of the market "hey, I will have all these available." We manage it through the brokers. They have their close friends,

they speak their own language, they know each other, they gossip about everything, they know what is going to be available. (...) The traditional way to do it is to pick up the phone and call. "Hey, I have this paper." That's the one I prefer. (...) I already know who buys what and I prefer that we do it with them. We even have a WhatsApp group where you can say: "hey, I'm looking for something or I have this available to sell." After that, I open to the market. (A broker an CEO of a large independent brokerage)

This is the only combination pattern that could be recovered from the interview analysis. Perhaps a larger number of interviews (limited by design and especially by the complications of the Covid-19 pandemic) would have yielded more data to show whether there are other different patterns. However, the available evidence at least hints at the existence of hierarchies or combinations in the use of strategies over time. If the only qualitative evidence retained is generalizable, we might expect, for example, that over time, brokerages that are significant internalizers would also show repeated or reciprocal transactions with close counterparts. With all due caveats, this can be turned into a hypothesis:

H4) Brokerages that display a larger number of internalized trading also display large numbers of repeating or reciprocal transactions.

Due to the limits of qualitative data and lack of previous work on the subject, I decided not to construct other detailed hypotheses on the joint use of the different strategies. Nonetheless, I proceeded with exploratory quantitative analysis of other possible joint preferences. These findings can be considered as initial insights to be explored in future stages of this project.

4.4 Data and methods

4.4.1 Data

As in the previous chapter, the main data set used for this analysis consists of the records of all market transactions carried out in the Ecuadorian securities market between January 1, 2007 and June 30, 2017. As previously explained, this data set contains several variables for each chronologically ordered transaction. Among these variables, the following are relevant for the analysis of this chapter:

- a) Date of transaction
- b) Type of security
- c) Economic sector of the issuing firm
- d) Name of brokerages involved in the transaction (seller and buyer)
- e) Location of brokerages (city of the brokerage's headquarters, Quito or Guayaquil)
- f) Belonging of brokerages to an economic group (*grupo económico*)
- g) Type of trading market (primary or secondary market)
- h) Amount traded in USD
- i) Exchange used for the transaction (Quito or Guayaquil)

In this chapter, this initial data set will be used to study how different trading strategies (internalization, repetition, reciprocity, regional and inter-bank trading) used for each transaction relate to two sets of independent variables: first (for the question of different use of trading strategies), several characteristics of the trade and the selling brokerage, and second (for the question of joint use of strategies),

the brokerages' level of previous use of each trading strategy. The details of the characteristics and the treatment of all these variables will be discussed shortly.

In order to study between-brokerage variation in the deployment of different trading strategies and their joint use over time, a second data set was created through the aggregation of transactional data. This new data set accounts for the average⁵ monthly activity of the 51 brokerages that were active during the period of analysis. This set includes the monthly average values for the following variables:

- a) Number of trades closed by each brokerage
- b) Value of the transactions closed by each brokerage
- c) Transactions belonging to each type of trading strategy (internalization, inter-period repetition, inter-period reciprocity, intra-regional trading and inter-banking trading)
- d) Transactions closed by each brokerage in the primary and secondary markets
- e) Equity and debt transactions closed by each brokerage
- f) Transactions closed by each brokerage with securities issued by firms belonging to key economic sectors: agriculture, manufacturing, government, wholesale and banking.

With this data set, it is possible to study three key sources of variation in the use of trading strategies among different brokerages (first research question): the size of the actors, their location, and their association with economic groups. Regarding the second research question (joint use of strategies over time), it will allow us to find evidence of possible combinations in the monthly proportions allocated to pairs of strategies that vary from one brokerage to another.

⁵The monthly average was privileged over the total period value in order to account for differences in brokerage activity: not all brokerages were equally active during the entire analysis period.

A third and final data set is used to study the monthly variation of dependent, explanatory, and control variables for each brokerage during the period of analysis. The research questions applied here are essentially the same, but the difference with the second data set is that here we are looking at the variation in each broker's behavior over the course of the analysis period (within-variation).

In summary, the use of these three data sets allows us to compare results for the relationship between dependent variables and predictors across brokerages (between-variation) for each given brokerage over time (within-variation) and at the transaction level. The combination of multiple levels of analysis allows us to mitigate certain inherent limitations and provide more robust results.

4.4.2 Dependent variables: trading strategies

The hypotheses discussed earlier refer to the usage of five types of trading strategies that have already been discussed in the previous chapter as explanatory devices of economic action in this market: (1) internalization, (2) repetition, (3) reciprocity, (4) regionalism, and (5) inter-bank trading. The main difference with the way these variables are used in Chapter 3 and afterwards in Chapter 5 is that, here, they are dependent rather than explanatory. I recover a few elements on these variables operationalization for the reader's ease, adding details that are specific to the way I use them in this chapter.

To study ties that become embedded over time, I follow the empirical applications of previous research on recurrent collaboration ([Boussard et al., 2019](#); [de Nooy, 2011](#); [Gulati & Gargiulo, 1999](#); [Rider, 2012](#)). These works look at how ties become embedded through repetition. For the purpose, I created a lagged variable that accounts for the existence of the same tie in the previous month. In order to study direct reciprocity ([Baker, 2012](#); [Blau, 1963](#); [Greenberg, 1980](#)) between brokerages, I included a lagged variable that accounts for the inverted trading relation between brokerages in $t-1$ (last month). Finally, internalized trading is included by the

analysis of *loops* as described in social network analysis (Shafie, 2015; Wasserman & Faust, 1994) and applying it to this trading strategy that accounts for a brokerage having the role of buyer and seller in the same transaction.

As I have done on previous exploratory work (Chiriboga-Tejada, 2018), I examine regional ties through the study of actors' location. In Ecuador, brokerages are based in Quito or Guayaquil.⁶ Even if brokerages operate in both exchanges, they are headquartered in one city. Thus, regional trading is constructed at the transactional level as a dummy variable that shows when a brokerage trades with another one in the same city.

The last dependent variable accounts for trading between brokerages that are linked to elite economic groups. These *grupos económicos* are usually organized around a large bank and are constituted around kinship (Carrión, 1991; Hanson, 1971; North, 1985; North & Clark, 2018; Pástor Pazmiño, 2016). This variable comes from the dummies created to tell whether brokerages belong to or work closely to one of these groups. The absence of the categorical effect means that the brokerage is not dependent on any economic group.⁷ The criteria for this distinction is discussed in Chapter 3. This variable has been excluded from the analysis among brokerages (between-variation) as it refers exclusively to those related to large economic groups.

In this chapter, these variables will be studied in different ways depending on the type of analysis conducted. First, for the analysis at the transactional level, variables are dummies that account for the trading strategy used if it is the case. Ties that could overlap have have been duly separated to avoid artifacts.⁸ Second, for models

⁶As mentioned in the previous chapter, the only exception was a small brokerage in a coastal city that was active in a single year and for very few transactions. Interviewees confirmed that it was a peripheral actor and, to some, not relevant at all. Thus, it was excluded from the analysis.

⁷In this analysis no distinction is made between economic groups and the focus is on strategies that account for generalized elite cohesion. Therefore, the dummy variable shows whether an actor is a bank-brokerage. In the terms used by traders, these are known as *casas de valores bancarias*. Including a desegregation of different economic groups could be subject of future research.

⁸Internalized trading can be mistakenly captured by other types of ties. For example, an internalized transaction can be wrongfully considered a regional transaction or vice versa. All these possible overlaps have been corrected.

that study between-brokerage and within-brokerage variations, these variables are constructed as monthly proportions with respect to the total volume of operations carried out by the brokerage in the respective period analyzed.

4.4.3 Independent variables and controls

The two research questions covered in this chapter define the way explanatory and control variables are addressed and organized. For the first question, I analyze how the use of different trading strategies (at the transactional level⁹ and looking at monthly brokerage behavior) varies as a function of different characteristics of the trade itself and of the brokerages. For the second question, I analyze the patterns of joint use of different trading strategies at the monthly level (variation between and within brokerages) and whether the monthly concentration of trade in certain strategies is associated with transaction-level decisions. In the models that investigate the second question, trading strategies are considered as explanatory variables. Given that trading strategies have been explained above and in the previous chapter, I only include and discuss the remaining explanatory/control variables that will be used:

- a) **Exchange:** this variable is only used in transaction models and it refers to the exchange (Quito or Guayaquil) where the transaction is closed.
- b) **Domicile:** the city (Quito or Guayaquil) where the headquarters of the brokerage are located.
- c) **Bank linkage:** this variable tells us whether the brokerage belongs to or is linked to an economic group¹⁰

⁹In the transactional analysis, I focus on brokerages as sellers of securities. This decision was made for reasons of scope and considering that trading in this market is mostly driven by the selling operation. Thus, I largely leave aside the analysis of buying transactions, unless indicated otherwise.

¹⁰This is the dummy mentioned in the section on dependent variables.

- d) **Size:** how big a brokerage is in terms of its selling volumes. For transaction models, size is the volume sold by the brokerage. For between-brokerage models it is the monthly average trading volume of an actor during the full period studied (126 months). For within-brokerage variation models, it is the monthly trading volumes of each actor.
- e) **Value:** this variable is only used in transaction models and is the transaction's value in USD
- f) **Secondary market:** when this variable is used in transaction models it is a dummy that tells us if the trade was done in the secondary market (or, conversely, the primary market). In between-brokerage models, it is the monthly average proportion that brokerages trade in the secondary market during the full period of analysis. In within-brokerage models, it is the monthly proportion that brokerages trade in the secondary market.
- g) **Equity:** in transaction models, this variable is a dummy that tells us that the security traded is stock or another variable-rent type of security. The opposite value would imply the security being fixed-rent. In between-brokerage models, it is the monthly average proportion that brokerages trade on stock or another variable-rent type of security during the full period of analysis. In within-brokerage models, is the monthly proportion that brokerages trade on stock or another variable-rent type of security.
- h) **Key economic sectors:** a group of 5 variables that refer to Ecuador's economic sectors: agriculture, manufacturing, government, wholesale and banking. Similarly to the equity variable, these variables are dummies for transaction models, monthly average proportions for between-brokerage models, and monthly proportions for within-brokerage analysis.

I linger a bit longer on the discussion of variables f), g), and h) to comment on the reasons for their inclusion. Players' size and region are considered to be possible major sources of variation in the use of trading strategies. Other sources of

variation may arise from the specializations that brokerages adopt, which have been well studied in financial research. The three relevant trading specializations studied for this market are secondary market trading, equity (referring to the trading of stocks and other variable rent securities), and the orientation towards securities of specific economic sectors.

The development of secondary markets and the trading of equity are considered two fundamental characteristics of modern and liquid securities markets. In financial analysis, secondary markets are considered to be fundamental for providing a market with liquidity, diversification, reduced transaction costs and fair pricing (Bhalla, 2008). Secondary market trading is also considered a key aspect for market development in emerging economies (Arvai & Heenan, 2008) as it helps markets move from being old-fashioned, inefficient, and narrow setups with a reduced number of issuers, investors, and intermediaries into venues that are modern, competitive, and expansive. The development of equity trading is another key feature of modern securities markets.¹¹ Considering these widely accepted tenets about the functioning of securities markets, secondary market and equity trading are expected to be more impersonal and closest to the ideal of perfect markets.

In Chapter 2 we saw that secondary market and trading of equity is not developed in Ecuador's case. Despite of that, some brokerages are more involved in these sections of the market. An extreme example of this is Valorapolo, a medium-size brokerage house in Quito that was active in the market in 2007-2017. Valorapolo was 100% dedicated to secondary market trading of stocks from certain large firms. Specific to the Ecuadorian case, brokerages have other specializations depending on the securities they trade the most, for example, stocks or fixed-rent securities of issuers belonging to relevant economic sectors like agro-exports. All these specializations could explain different deployments of trading strategies, which is why they

¹¹As a reference, according to the SEC, US equity markets in 2014 doubled fixed income markets. In the report by former chair of the SEC Mary Jo White (available at: https://www.sec.gov/news/speech/2014-spch062014mjw#_ednref11), USD 27.8 trillion of equity securities were traded in US markets while there were USD 11.3 trillion in principal amount of corporate bond issues outstanding and about USD 3.7 trillion in principal amount of municipal bond issues outstanding.

have been included as explanatory or control variables depending on the case.

4.4.4 Estimation

To address both research questions, I have chosen to combine three levels of analysis: transactional, between-brokerage, and within-brokerage monthly variation. These three levels of analysis have their peculiarities and may yield different results even when examining the relationships between similar variables. In other words, it is not necessarily expected that the results will be the same across all levels of analysis. For instance, comparing the variation in the use of trading strategies across brokerages is not the same as measuring the historical variation in the use of trading strategies for each actor. However, if there are some similarities across levels, this can help us to draw stronger conclusions.

Each of the two research questions addressed in the chapter, for each level of analysis, will be addressed through different types of statistical models that are organized in the following way:

For the study of differences in the deployment of trading strategies

- **Transactional analysis:** logit models with standard errors, controlled for the effect of time variation (monthly). For these models, different cuts of data are included: for the full market and also for the primary and secondary markets. These models analyze the use of each trading strategy in each transaction (dependent variable, dummy) contingent upon explanatory variables that account for characteristics of the trade, characteristics of brokerages and their trading preferences. Explanatory variables 1 (Exchange), 2 (Domicile) and 3 (Linked to bank) are dummies that account, respectively, for the exchange used for the transaction, the domicile of the selling brokerage and its link (or not) to a banking group. Explanatory variable 4 (Size) accounts for the lagged volumes sold by the brokerage. Variable 5 is the value of the transaction and variables

6 to 9 are dummies for the type of security traded.

- **Between-brokerage average monthly variation:** linear models with standard errors. These models study the relation between the average monthly trading volumes that brokerages close through each trading strategy (dependent variable, proportional) with explanatory variables that account for several characteristics of brokerages and their trading preferences. Explanatory variable 1 (Size) measures the monthly average trading volumes of brokerages. Explanatory variables 2 (Domicile) and 3 (Linked to bank) are dummies that account, respectively, for brokerages' location and whether they are linked to a large banking group. Explanatory variables 4 to 10 account for the monthly average proportion that brokerages trade on the secondary market (variable 4) and on different types of securities (variable 4 to 10).
- **Within-brokerage monthly variation:** linear models with time fixed effects, brokerage fixed effects and clustered-robust errors. Dependent variables in these models are the monthly trading volumes closed by brokerages relying on each trading strategy. Explanatory variable 1 (Size) measures the monthly trading volumes of brokerages. Explanatory variables 2 (Domicile) and 3 (Linked to bank) are dummies that account, respectively, for brokerages' location and whether they are linked to a large banking group. Explanatory variables 4 to 10 account for the monthly proportion that brokerages trade on the secondary market (variable 4) and on different types of securities (variable 4 to 10).

For the study of the combined use of trading strategies

- **Transactional analysis:** Logit models with standard errors, controlling for the effect of time. All of the explanatory variables used in the models to examine differences in the use of trading strategies are used as additional controls. The independent variables in these models are the proportion of last

month's trading volume (sales only) that the brokerage closed through each type of trading strategy.

- **Between-brokerage average monthly variation:** Linear models with standard errors. All the explanatory variables used in the models that study of differences in the deployment of trading strategies are included as controls. Here, I explored several ways of working with the dependent and independent variables which, strictly speaking, are the same. I have finally chosen to present and discuss the results of models where both variables represent the average trading volumes devoted by brokerages to each trading strategy, considering that the distorting effect that the differences in size between brokerages is controlled. Another option is to work variables as proportions. However, having both the dependent and the explanatory variables as proportions could easily lead to the spurious correlation of ratios ([Aldrich, 1995](#); [Pearson, 1897](#)). A third option for conducting these regressions is a combination: keeping the dependent variables as average volumes of trading while measuring the explanatory variables as ratios. I use these two alternative options for conducting this analysis as robustness checks (whose results are included in appendices [C](#) and [D](#)).
- **Within-brokerage monthly variation:** Linear models with time fixed effects, brokerage fixed effects and clustered-robust errors. Similarly to between-brokerage analysis, all the explanatory variables used in the models on the differences in the deployment of trading strategies are included as controls. Furthermore, in these models the way to work with dependent and independent variables is similar to the between-brokerage models described above. On similar lines to those, I have chosen to present and discuss the models that compare variables measured as monthly volumes traded by brokerages while the alternative models are used as robustness checks (whose results are included in appendices [E](#) and [F](#)).

4.5 Findings

The findings of the statistical analyses are organized into two subsections that refer respectively to the two research questions studied in this chapter. Each subsection addresses the corresponding hypotheses or topics at different analytical levels: transaction, between-brokerage comparison, and within-brokerage variation. Each subsection will present and discuss findings that are relevant across those levels. Several additional models were conducted as robustness checks. The results of those are presented in tables in appendices at the end of the thesis.

4.5.1 Sources of the different deployment of trading strategies

The first question that I address in this chapter explores whether brokerages use socially embedded trading strategies differently depending on their specific characteristics and preferences. As expressed by hypotheses H1, H2 and H3a-H3b, I ask whether different deployments relate to the size of brokerages, their linkages to economic groups, and their location. In some cases, the results are quite constant (in scale and/or magnitude) across different models and across different levels of analysis (transactional, between brokerages, and within brokerages). In those cases, we can presume more robust results than for those that vary across or between models and levels. However, some of the latter may also yield interesting clues. Those results should be considered to be preliminary and I intend to draw initial conclusions that merit further exploration.

4.5.1.1 Socially embedded trading: not confined to small players

[Table 4.1](#) shows the coefficients for models that examine the average monthly use of trading strategies (dependent variables) based on several brokerage characteristics

and their preferences for specific securities (independent variables). The first thing we notice is that brokerage size (Table 4.1, Line 1) appears to be strongly associated with the use of all trading strategies (models 1-5). This provides initial evidence against the idea that socially embedded trading is limited to smaller players who have a greater need to sort out difficulties in the market. Conversely, the coefficients are in line with hypothesis H1, which expects that larger brokerage firms are more involved in and benefit from social trading strategies. We have a similar result when we analyze the varying use of trading strategies for each brokerage throughout the entire period of analysis (within-variation). The coefficients in Table 4.2, Line 1, suggest that in months when brokerages trade more, they also engage more in the five types of trading strategies.

These results could be misleading as we can be facing a scale effect: larger trading volume implies larger display of all trading strategies. A way to overcome this problem is to look at the transaction level where we can ask whether trades relying on social strategies are more likely to be associated to larger brokerages. In Table 4.3, Line 4 we see that, in most cases, the size of brokerage has a significant and positive correlation with transactions closed through different trading strategies. The clear exception is regional trading where predictors are negative. However, this exception can be read together with the coefficients of other models: despite the limitations commented above, in the corresponding between-brokerage model (Table 4.1, Line 1, Model 4) and in within-variation models (Table 4.2, Line 1, models 7 and 8) the coefficients than indicate the relation between regional trading and brokerage size are positive and significant, but weaker compared to those for other strategies.

Closely related to the question of big players, I hypothesized that brokerages associated with large economic groups should make greater use of socially embedded strategies (H2). Between-brokerage and within-brokerage models did not yield significant results. On the other hand, full market transaction models (Table 4.3, Line 3, models 4, 7, and 10) confirm the hypothesis for repetition, reciprocity, and regional trading. Nonetheless, Model 1 shows a negative coefficient, indicating that

Table 4.1: Linear estimates for average monthly display of trading strategies based on brokerage characteristics (between-brokerage models)

	<i>Dependent variables (Trading strategies):</i>				
	Internalized (1)	Repetition (2)	Reciprocity (3)	Regional (4)	Inter-bank (5)
1. Size	1.967*** (0.188)	1.079*** (0.154)	1.203*** (0.187)	0.470** (0.156)	0.734*** (0.135)
2. Domicile = Quito	0.677 (0.465)	0.288 (0.381)	0.390 (0.463)	0.877* (0.385)	-0.369 (0.350)
3. Linked to bank	0.390 (0.513)	-0.448 (0.419)	-0.017 (0.510)	0.051 (0.424)	
4. Secondary market	6.060*** (1.271)	-1.163 (1.039)	0.338 (1.264)	-0.009 (1.051)	2.279 (1.799)
5. Agriculture securities	2.807 (6.030)	10.534* (4.931)	9.877 (5.997)	9.477+ (4.987)	15.095 (12.267)
6. Manufacturing sec.	-1.725 (2.379)	13.233*** (1.946)	9.321*** (2.366)	13.724*** (1.967)	-7.067 (7.324)
7. State securities	-2.515 (2.285)	9.077*** (1.869)	6.691** (2.272)	7.759*** (1.890)	-5.785 (6.362)
8. Wholesale securities	1.692 (2.599)	12.077*** (2.125)	10.125*** (2.584)	11.393*** (2.149)	-8.705 (5.007)
9. Bank securities	-2.717 (2.137)	10.440*** (1.747)	8.879*** (2.125)	9.490*** (1.767)	-5.400 (6.054)
10. Stocks	-2.672 (1.651)	-3.086* (1.350)	-4.202* (1.642)	-5.243*** (1.365)	3.107 (1.861)
Constant	-18.362*** (3.355)	-11.835*** (2.744)	-13.723*** (3.337)	-2.568 (2.775)	7.258 (5.820)
Observations	51	51	51	51	18
R ²	0.798	0.864	0.816	0.801	0.936
Adjusted R ²	0.748	0.830	0.770	0.752	0.863

Notes: All regressions are linear models. Dependent variables account for the average monthly trading volumes relying on each trading strategy. Explanatory variable 1 (Size) measures the monthly average trading volumes of brokerages. Explanatory variables 2 (Domicile) and 3 (Linked to bank) are dummies that account, respectively, for brokerages' location and whether they are linked to a large banking group. Explanatory variables 4 to 10 account for the monthly average proportion that brokerages trade on the secondary market (variable 4) and on different types of securities (variable 4 to 10). Models of column 5 only consider brokerages that are linked to banks (n = 18). Standard errors in parentheses. +p<0.1; *p<0.05; **p<0.01, ***p<0.001

internalized transactions are generated to a lesser extent by bank-brokerages.¹² This suggests that although we know that bank brokerages use this strategy significantly (it's everyone's favorite), they rely on it less than independent brokerages do. One explanation may be that these brokerages make room for other types of trading that serve specific purposes. For example, in Chapter 3 and in this chapter, I explained how banks instruct each other's brokerages to reciprocally trade convertible bonds in order to boost each other's technical equity indicators.

4.5.1.2 Different use of trading strategies: domicile matters

Hypotheses H3a and H3b seek to examine whether there are differences in the use of trading strategies depending on whether the brokerages are located in Quito or Guayaquil. The analysis at the transaction level yielded the following results:

- Internalized trades are mostly generated by Quito's brokerages, with a marked propensity for this to happen in the primary market (Table 4.3, Line 2, models 1 and 2).
- Primary market trading with repeated counterparts happens less in Quito (Table 4.3, Line 2, Model 5). Conversely, in the secondary market, Quito's brokerages appear slightly more prone to repeat their trading partners (Table 4.3, Line 2, Model 6).
- Reciprocity appears to be preferred by Quito's brokerages, notably led by trading in the secondary market (Table 4.3, Line 2, models 7 and 9).
- Trading among brokerages linked to banks is more important in Quito (Table 4.3, Line 2, models 13-15).

¹²This nuance is relevant considering that scale does not play a role: although these brokerages are "outnumbered" by independent counterparts (18 out of 51 brokerages), they participate in half of all the trading done in the market.

The results for regional trading deserve separate comment. We see contrasting results for primary and secondary market transactions. First, the overall negative coefficient suggesting that Quito brokerages engage less in regional transactions seems to be driven by trading behavior in the secondary market (Table 4.3, Line 2, Model 12), while in the primary market (Table 4.3, Line 2, Model 11) the relationship between regional trading and location (Quito) is positive. In other words: Quito brokerages seem to be more regionalist when trading in the primary market, while the opposite is true in the secondary market. Another consideration should be added to the analysis. Brokerages participate in both exchanges and there may be differences depending on whether they "trade at home" or not. To check this, I have included an interaction to distinguish the trades made in the Quito exchange by brokerages from the same city. The coefficients for this analysis for full market transactions and including both buy and sell trades are included as Appendix B. In this case, we see that there is a strong regional effect. In other words, when Quito brokerages trade on their city's exchange, they are clearly trading with local counterparts. Overall, these results suggest that regional trading is mostly done by actors located in the capital.

Comparisons between brokerages go hand in hand with the findings of regional trading at the transactional level. Table 4.1, Line 2, Model 4 suggests that regional trading is preferred by Quito's brokerages over those located in Guayaquil. Regionalism is the only trading strategy (dependent variable) in between-brokerage models where the effect of domicile delivers a significant coefficient.

Overall, these results suggest that location matters for the deployment of trading strategies and that actors based in the capital appear to be more dependent on them. Specifically, they suggest that Quito's brokerages employ a greater amount of socially based trading than brokerages in Guayaquil, and they also appear to be more attached to their regional counterparts. This finding involves an interesting puzzle. Although traders themselves characterize *guayaquileños* as more informal and drifting from market rationality, it is rather *quiteños*—characterized as more technical and rational—who rely more on their social ties. Even if the Quito market

has a culture more prone to the modernization of trading, this does not mean that there is less reliance on socially driven trading strategies.

Table 4.2: Linear estimates for trading strategies based on brokerage characteristics and preferences (within-brokerage variation)

	<i>Dependent variables (trading strategies)</i>									
	Internalized		Repetition		Reciprocity		Regional		Inter-bank	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Size	1.498*** (0.120)	2.189*** (0.167)	1.165*** (0.163)	1.677*** (0.133)	1.036*** (0.188)	2.020*** (0.233)	0.755*** (0.086)	0.960*** (0.109)	1.161*** (0.212)	1.564*** (0.117)
2. Domicile = Quito		0.459 (0.595)		1.126* (0.508)		1.293 (0.900)		1.168** (0.437)		-0.262 (0.372)
3. Linked to bank		-1.186 (0.759)		0.284 (0.517)		1.232 (1.067)		0.379 (0.489)		
4. Secondary market	1.883*** (0.428)	3.607*** (0.786)	0.133 (0.358)	-0.499 (0.430)	1.115+ (0.599)	1.632+ (0.991)	1.180* (0.505)	0.676 (0.509)	2.935* (1.277)	2.983** (1.011)
5. Agriculture securities	-1.093 (0.747)	-0.144 (1.308)	1.934 (1.546)	1.835 (1.592)	2.083* (0.937)	0.702 (2.092)	1.024 (0.725)	0.959 (0.922)	3.242 (1.959)	4.714* (2.021)
6. Manufacturing securities	-0.303 (0.645)	0.061 (0.852)	0.826 (0.672)	1.527+ (0.811)	0.844 (0.736)	1.800 (1.122)	0.898+ (0.498)	1.184+ (0.664)	-0.095 (0.940)	1.419 (0.911)
7. State securities	-1.992*** (0.438)	-2.727*** (0.801)	1.775* (0.881)	2.451** (0.928)	0.948 (0.840)	1.284 (1.324)	0.067 (0.769)	-0.237 (0.900)	-2.986+ (1.532)	-3.580** (1.266)
8. Wholesale securities	-1.065+ (0.535)	-0.780 (0.834)	1.479* (0.707)	1.759* (0.856)	1.594* (0.662)	2.271* (1.084)	0.962 (0.733)	1.432* (0.699)	-0.823 (1.234)	0.560 (1.507)
9. Bank securities	-1.300* (0.585)	-1.923 (1.196)	1.234 (0.849)	2.739** (0.979)	0.160 (1.039)	1.393 (1.570)	0.332 (0.704)	1.023 (0.771)	-1.294+ (0.740)	-0.696 (0.984)
10. Stocks	1.004+ (0.531)	0.577 (0.678)	-0.610 (0.655)	0.803 (0.779)	0.207 (0.628)	0.705 (1.344)	-0.351 (0.683)	-0.222 (0.665)	-3.201+ (1.620)	-1.858 (1.612)
Time fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Brokerage fixed effects	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Observations	4,131	4,131	4,131	4,131	4,131	4,131	4,131	4,131	1,080	1,080
R ²	0.700	0.538	0.571	0.492	0.538	0.372	0.419	0.311	0.484	0.424
Adjusted R ²	0.686	0.523	0.551	0.475	0.517	0.351	0.392	0.288	0.401	0.343

Notes: All regressions are linear models with the fixed effects detailed above. Dependent variables account for the monthly trading volumes closed by brokerages relying on each trading strategy. Explanatory variable 1 (Size) measures the monthly trading volumes of brokerages. Explanatory variables 2 (Domicile) and 3 (Linked to bank) are dummies that account, respectively, for brokerages' location and whether they are linked to a large banking group. Explanatory variables 4 to 10 account for the monthly proportion that brokerages trade on the secondary market (variable 4) and on different types of securities (variable 4 to 10). Models of columns 9 and 10 only consider brokerages that are linked to banks. Clustered-robust errors in parentheses. + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$

4.5.1.3 Brokerage specializations and the deployment of trading strategies

To conclude the analysis of the sources of the differential use of trading strategies, I would like to comment on several coefficients delivered by control variables.¹³ Although they are not part of the main corpus of hypotheses, their results contribute to understanding the particular development of this market. The control variables that will be commented on take into account the specializations that brokerages adopt: secondary market trading, equity, and securities in certain economic sectors.

First, brokerages that are more involved in the secondary market also exhibit higher levels of internalized trading. This is true both when we compare different brokerages (Table 4.1, Line 4, Model 1) and when we look at the monthly variation within brokerages (Table 4.2, Line 4, models 1 and 2). We have seen that in financial theory, secondary markets are considered fundamental to provide liquidity, diversification, reduced transaction costs and fair price formation (Bhalla, 2008). They are also claimed to be key to market development in emerging economies (Arvai & Heenan, 2008). In this sense, the fact that the brokerage firms that participate more in the secondary market are the ones that internalize their trades the most does not lead to greater market expansion. If transactions on the secondary market really mean liquidity movements for the closed group of clients of the same brokerage, there is no real development of this type of market. Thus, this can be considered one piece of the story of the failure of this market, where some types of actions can be favorable for the actors, but do not necessarily translate into better results for the market. To a lesser extent, but with significant coefficients, the within-variation models show positive correlations between the proportion that brokerages devote to secondary market trading and the monthly trading volumes closed through reciprocity and regional and inter-bank trading (Table 4.2, Line 4, models 5, 6, 7, 9

¹³Since we are dealing with several models with a significant number of explanatory and control variables, there are quite a few opportunities to expand the analysis or add new questions regarding several significant coefficients that were obtained. For reasons of space, I have decided to privilege comments that complement the general undertaking of this thesis to shed light on the puzzling existence of this market.

and 10). Overall, these findings suggest that the secondary market in Ecuador is far from being the impersonal and anonymous trading ground that financial theory would expect.

Equity trading seems to be more in line with the expectations of securities market theory. In the between-brokerage models, the coefficients that show the relationship between equity trading and the volumes destined by brokerages to repetition, reciprocity, and regional trading are large, significant, and negative (Table 4.1, Line 10, models 2-4). While these results are rather preliminary, they suggest that brokerages dedicated more to trading in equities are "less embedded" and closer to the expected trading standards for competitive markets. However, we find a particular association between equity trading and internalization. Although the between-brokerage analysis was inconclusive, within-brokerage models with fixed effects suggest that in months when actors increase their trading of equity, this is associated with larger internalization (Table 4.2, Line 10, Model 1). In addition, the transaction models suggest that equity trading is a large and significant predictor of primary market internalization (Table 4.3, Line 6, Model 2). A potential explanation is that brokerages could be using internalization in primary equity transactions (where we would expect firms to open their capital) with the aim of restricting them to a group of clients. This way of operating makes sense if we take into account the closed capital structure and the hoarding practices of economic groups.

A final comment refers to the coefficients generated by sector specializations between models (Table 4.1, lines 6-9). Very strong and significant positive correlations are found between several sector specializations and the trading volumes generated by three types of strategies: repetition, reciprocity, and regional trading. This suggests that the few¹⁴ brokerages that focus heavily on sector trading have a very strong dependence on trading through these three strategies. Why they rely on

¹⁴Most brokerages in this market trade all types of securities. There are no extreme cases of brokerages trading only one type of security. However, there are cases of greater concentration. For example, there are players that specialize in trading stocks issued by large supermarket chains and other companies in the wholesale sector. Bank-brokerages also specialize by concentrating on primary market trading of securities issued by the financial institution to which they are affiliated.

these three strategies and not internalization for a closed group of clients (which would seem logical) is a puzzle that emerges from these preliminary results and is worth exploring in future phases of this research.

Table 4.3: Linear estimates for trading strategies (transactional)

	<i>Dependent variable (trading strategies)</i>								
	Internalized			Repetition			Reciprocity		
	(1) Full	(2) Primary	(3) Secondary	(4) Full	(5) Primary	(6) Secondary	(7) Full	(8) Primary	(9) Secondary
1. Exchange = BVQ	-0.702*** (0.014)	-0.396*** (0.031)	-0.666*** (0.017)	0.428*** (0.016)	0.302*** (0.034)	0.340*** (0.019)	0.082*** (0.023)	-0.144** (0.048)	0.040 (0.026)
2. Domicile = Quito	0.079*** (0.015)	0.286*** (0.030)	0.008 (0.018)	0.004 (0.017)	-0.322*** (0.034)	0.113*** (0.020)	0.127*** (0.023)	0.001 (0.048)	0.123*** (0.028)
3. Linked to bank	-0.336*** (0.014)	-0.124*** (0.029)	-0.036* (0.017)	0.177*** (0.016)	0.083* (0.033)	-0.120*** (0.019)	0.095*** (0.023)	0.293*** (0.049)	-0.249*** (0.027)
4. Brokerage size	0.124*** (0.004)	-0.042*** (0.010)	0.129*** (0.005)	0.033*** (0.005)	0.232*** (0.012)	0.032*** (0.005)	0.187*** (0.008)	0.340*** (0.020)	0.198*** (0.009)
5. Value	-0.037*** (0.003)	-0.266*** (0.007)	0.069*** (0.004)	-0.002 (0.003)	0.212*** (0.008)	-0.094*** (0.004)	0.041*** (0.005)	0.179*** (0.012)	-0.020*** (0.006)
6. Stocks	-0.536*** (0.016)	4.352*** (0.234)	-0.865*** (0.022)	0.323*** (0.019)	-5.202*** (0.449)	0.677*** (0.025)	0.522*** (0.027)	-16.124 (106.554)	0.805*** (0.036)
7. Agriculture	0.959*** (0.048)	0.393*** (0.068)	1.900*** (0.082)	-0.948*** (0.065)	-0.509*** (0.084)	-1.876*** (0.117)	-0.799*** (0.099)	-0.325** (0.121)	-2.046*** (0.196)
8. Manufacturing	-0.729*** (0.026)	-0.334*** (0.039)	-0.551*** (0.039)	0.633*** (0.031)	0.237*** (0.044)	0.442*** (0.049)	0.655*** (0.047)	0.243*** (0.062)	0.320*** (0.072)
9. State	-1.255*** (0.025)	0.766*** (0.063)	-1.794*** (0.037)	1.391*** (0.030)	-0.745*** (0.076)	1.954*** (0.046)	1.121*** (0.045)	-0.673*** (0.109)	1.501*** (0.066)
8. Wholesale	-0.890*** (0.023)	-0.197*** (0.038)	-0.998*** (0.034)	0.863*** (0.028)	0.284*** (0.044)	0.973*** (0.043)	0.997*** (0.042)	0.265*** (0.064)	1.070*** (0.062)
9. Bank security	-0.152*** (0.024)	0.964*** (0.041)	-0.708*** (0.035)	0.216*** (0.029)	-0.700*** (0.047)	0.720*** (0.044)	0.238*** (0.043)	-0.795*** (0.068)	0.560*** (0.064)
Constant	0.605*** (0.082)	4.073*** (0.181)	0.006 (0.096)	-3.181*** (0.094)	-7.302*** (0.230)	-2.775*** (0.109)	-6.995*** (0.149)	-9.847*** (0.362)	-6.824*** (0.170)
Observations	153,019	38,792	114,227	153,019	38,792	114,227	153,019	38,792	114,227
Log Likelihood	-90,273.620	-20,350.080	-65,132.110	-76,119.690	-16,828.590	-55,990.780	-44,246.240	-9,397.700	-33,617.870

Notes: All regressions are logit models controlled for the effect of time. The dependent variables take into account the type of trading strategy used in each transaction. Explanatory variables 1 (Exchange), 2 (Domicile), and 3 (Linked to bank) are dummies that account for the exchange used for the transaction, the domicile of the selling brokerage, and whether or not it is linked to a banking group. Explanatory variable 4 (Size) takes into account the lagged volumes sold by the selling brokerage. Variable 5 is the value of the transaction and variables 6 to 9 are dummies that account for the type of security traded. Standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

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... Table 4.3 continued

	<i>Dependent variables (trading strategies)</i>					
	Regional			Inter-bank		
	(10) Full	(11) Primary	(12) Secondary	(13) Full	(14) Primary	(15) Secondary
1. Exchange = BVQ	0.585*** (0.017)	0.034 (0.036)	0.619*** (0.020)	-0.408*** (0.029)	-0.942*** (0.050)	-0.271*** (0.038)
2. Domicile = Quito	-0.054** (0.017)	0.388*** (0.035)	-0.226*** (0.021)	0.180*** (0.028)	0.353*** (0.049)	0.064+ (0.037)
3. Linked to bank	0.194*** (0.016)	0.003 (0.034)	-0.041* (0.020)			
4. Brokerage size	-0.107*** (0.005)	-0.025* (0.011)	-0.099*** (0.005)	0.135*** (0.010)	0.206*** (0.020)	0.124*** (0.012)
5. Value	0.033*** (0.004)	0.191*** (0.008)	-0.033*** (0.004)	0.120*** (0.007)	0.261*** (0.014)	0.026** (0.009)
6. Stocks	0.707*** (0.019)	-4.273*** (0.337)	1.040*** (0.025)	-0.161*** (0.039)	0.232 (0.758)	-0.221*** (0.050)
7. Agriculture	-0.984*** (0.063)	-0.370*** (0.084)	-1.917*** (0.102)	0.545*** (0.097)	0.450*** (0.113)	0.431+ (0.239)
8. Manufacturing	0.723*** (0.031)	0.330*** (0.045)	0.541*** (0.045)	0.564*** (0.060)	0.465*** (0.071)	0.681*** (0.136)
9. State	0.964*** (0.031)	-0.458*** (0.075)	1.389*** (0.044)	0.227*** (0.060)	-0.455*** (0.112)	1.025*** (0.124)
8. Wholesale	1.139*** (0.028)	0.317*** (0.044)	1.267*** (0.040)	0.493*** (0.059)	-0.115 (0.083)	1.336*** (0.123)
9. Bank security	0.146*** (0.030)	-0.961*** (0.050)	0.518*** (0.042)	0.107+ (0.056)	0.012 (0.073)	0.805*** (0.120)
Constant	-1.380*** (0.091)	-3.024*** (0.203)	-1.217*** (0.105)	-6.036*** (0.209)	-8.346*** (0.394)	-5.739*** (0.272)
Observations	153,019	38,792	114,227	71,693	18,287	53,406
Log Likelihood	-73,394.470	-16,345.670	-54,840.720	-23,479.570	-7,523.843	-15,418.890

Notes: All regressions are generalized linear models controlled for the effect of time. Dependent variables account for the type of trading strategy used in each transaction. Explanatory variables 1 (Exchange) 2 (Domicile) and 3 (Linked to bank) are dummies that account, respectively, for the exchange used for the transaction, the domicile of the selling brokerage and its link (or not) to a banking group. Explanatory variable 4 (Size) accounts for the lagged volumes sold by the selling brokerage. Variable 5 is the value of the transaction and variable 6 to 9 are dummies that account for the type of security traded. Standard errors in parentheses. +p<0.1; *p<0.05; **p<0.01, ***p<0.001

4.5.2 Preliminary findings on the joint use of trading strategies

Since studying the way brokerages combine different trading strategies or seem to utilize them in a hierarchical way is no easy task, I could have presented a series of reasons for excluding this question from the research. However, I do want to take advantage of the existing data on this market and show possible avenues for future developments in this or similar projects. Although the results are not completely conclusive, I believe the statistical models commented on below add new evidence on the way brokerages combine trading strategies over the course of time.

This part of the analysis is conducted at several levels: transactional, between-brokerage comparisons, and within-brokerage variation. In addition, I have established several ways of treating the dependent variables in an effort to mitigate problems such as spurious correlation of ratios (Aldrich, 1995; Pearson, 1897). The three main tables that summarize the results are included in the body of this section (Tables 4.5, 4.6, and 4.7), while the remaining tables, which include the results of models used for robustness checks, are in appendices C-F. The tables in the chapter and appendices are described below. The details include the dependent and independent variables involved in each case and the way they are used (volumes or proportion of trading):

Between-brokerage comparisons:

- **Table 4.5:** Linear estimates for the combination of trading strategies (dependent variables: trading volumes of each strategy; independent variables: proportion of trading through each strategy)
- **Appendix C:** Linear estimates for the combination of trading strategies (dependent variables: proportion of trading through each strategy; independent variables: proportion of trading through each strategy)

- **Appendix D:** Linear estimates for the combination of trading strategies (dependent variables: trading volumes of each strategy; independent variables: trading volumes of each strategy)

Within-brokerage variation:

- **Table 4.6:** Linear estimates for the combination of trading strategies (dependent variables: trading volumes of each strategy; independent variables: proportion of trading through each strategy)
- **Appendix E:** Linear estimates for the combination of trading strategies (dependent variables: proportion of trading through each strategy; independent variables: proportion of trading through each strategy)
- **Appendix F:** Linear estimates for the combination of trading strategies (dependent variables: trading volumes of each strategy; independent variables: trading volumes of each strategy)

Transactional analysis:

- **Table 4.7:** Logit estimates for trading strategies (dependent variables: dummy for each strategy; independent variables: lagged—past month—proportion of trading through each strategy)

Using this set of models, I highlight the most relevant findings for the joint use of trading strategies. To do so, I focus on the positive coefficients that are delivered between pairs of the same variables across models. To narrow down this selection, I prioritize coefficients with statistical significance and consider them when they have the same direction (positive or negative) across models. In doing so, I omit some coefficients that suggest the existence of combinations but do so only in single models. This does not mean that these combinations do not exist. They may be exclusive to the level or type of analysis. However, the purpose of the omission is to

highlight what appear to be the most relevant combinations of strategies as starting points for future analysis.

Table 4.4 shows the models whose coefficients have been retained as they show more consistent results between pairs of variables. The coefficients selected in the case of between-brokerage and within-brokerage models are the ones that are the consistent across the tested variations.¹⁵ In other words, a between or within model is displayed in Table 4.4 if the coefficients are significant and share the same direction across all three variations of the analysis. For example, the summary highlights the association between reciprocity and internalization in between-brokerage models. This means that the regression coefficients were relatively consistent across the three variations of between-brokerage models. In all three variations, coefficients indicated an association relation between reciprocity (as an independent variable) and internalization (as a dependent variable) when trading by different brokerages was compared.

Table 4.4: Summary of retained coefficients from models studying the combination of trading strategies

Independent / Dependent	Internalized	Repetition	Reciprocity	Regional
Internalized				
Repetition			Between-models Transactional model	Transactional model
Reciprocity	Between-models	Within-models		Within-models
Regional	Transactional model	Between-models Transactional model	Transactional model	

Fieldwork provided initial evidence for the existence of combinations and even certain hierarchy or ranking in the use of trading strategies. A single hypothesis,

¹⁵Variation of models implies different ways of constructing each variable (trading strategy): directly as volumes or as a proportion of total trading volumes

H4, was derived from the testimonies of active and former traders. This hypothesis expected that brokerages deploying higher levels of internalized trading would also have higher levels of repeated or reciprocal trading over time. The statistical analysis provided results consistent with this hypothesis, particularly regarding the relationship between reciprocity and internalization in comparisons across brokerages. We find this in [Table 4.5](#), Line 3, Model 1, where the coefficient indicates that a one percentage point increase in reciprocal trade is associated with a 7.9 point increase in internalized trading volume. This coefficient is consistent when both variables are examined as trading volumes ([Appendix D](#), Line 3, Model 1), where a unit change in reciprocal trading volumes is associated with a 50% increase in internalized trading volumes.¹⁶

No significant relationship was found between repetition and internalization, as might have been expected from H4. This suggests that once brokers exhaust the possibility of internalizing their trades, they turn to trading based on trust relationships with others with whom they mostly have reciprocal interactions rather than repetitive one-way transactions. Given the exploratory nature of this part of the analysis, this finding should be retained to generate new hypotheses for future rounds of fieldwork, where the issue of combination and hierarchy of trading strategies can be approached in greater depth.

The remaining results are summarized in [Table 4.4](#). They suggest that several other combinations stand out in different models and at different levels of analysis. In particular, there is preliminary evidence of the joint use of reciprocity and repetition, as well as between regional trading and repetition, as suggested by the coefficients of between-brokerage and transactional models. The respective coefficients can be found in [Table 4.5](#) (between-brokerage) and [Table 4.7](#) (transactional), and the results of models used as robustness checks are included in the appendices [C-F](#). I have preferred to simply point out these results rather than delve deeper into

¹⁶The other variation of this analysis ([Appendix C](#)), where both variables are calculated as proportions, was inconclusive. It must be kept in mind that this type of model can produce results that suffer from spurious correlation of ratios. I have kept them for comparison and robustness checks.

Table 4.5: Linear estimates for the combination of trading strategies (between models, option 1)

	<i>Dependent variables (Trading strategies)</i>			
	Internalized (1)	Repetition (2)	Reciprocity (3)	Regional (4)
1. Internalized		0.817 (1.388)	2.089 (1.736)	1.478 (1.557)
2. Repetition	-3.745 (2.410)		6.909** (2.321)	2.492 (2.226)
3. Reciprocity	7.935* (3.809)	4.786 (2.934)		1.848 (3.309)
4. Regional	-2.577 (2.646)	3.843+ (2.179)	1.194 (2.562)	
Constant	-16.512** (4.748)	-14.184*** (3.767)	-8.084 (5.163)	1.188 (3.994)
Observations	51	51	51	51
R ²	0.831	0.882	0.856	0.814
Adjusted R ²	0.771	0.840	0.805	0.748

Notes: All regressions are linear models that include controls for the size of brokerages, their location, their connection (or not) to a financial group, and the proportion of trading devoted to different types of trading: secondary market, stocks, and securities belonging to key economic sectors (agriculture, manufacturing, government, wholesale, and banking). The dependent variables are the average monthly proportions of trading volumes based on each trading strategy. Explanatory variables are the average monthly volumes that each brokerage devoted to each trading strategy. Standard errors in parentheses. +p<0.1; *p<0.05; **p<0.01, ***p<0.001

Table 4.6: Linear estimates for the association of trading strategies (within models, option 1)

	<i>Dependent variables (Trading strategies)</i>			
	Internalized (1)	Repetition (2)	Reciprocity (3)	Regional (4)
1. Internalized		-3.007*** (0.525)	-2.037*** (0.562)	-2.794*** (0.310)
2. Repetition	-1.204*** (0.271)		0.712 (0.522)	0.071 (0.354)
3. Reciprocity	-0.816 ⁺ (0.408)	1.244*** (0.342)		0.982** (0.337)
4. Regional	-3.214*** (0.478)	0.438 (0.570)	1.635*** (0.447)	
Time fixed effects	YES	YES	YES	YES
Brokerage fixed effects	YES	YES	YES	YES
Observations	4,131	4,131	4,131	4,131
R ²	0.723	0.591	0.550	0.453
Adjusted R ²	0.710	0.572	0.529	0.427

Notes: All regressions are estimated using linear models with time and brokerage fixed effects and include controls for the size of brokerages, their domicile, their link (or not) to a financial group and the proportion of trade devoted to different types of trading: secondary market, stocks and key securities belonging to key economic sectors (agriculture, manufacturing, government, wholesale, and banking). Dependent variables account for the monthly trading volumes that brokerages devote to each trading strategy. Explanatory variables are the proportion of trading volumes that brokerages destine to each trading strategy. Cluster-robust standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

their analysis without other substantiating evidence. However, I intend them to be an starting point for generating new questions and further analysis in future stages of the project.

Table 4.7: Logit estimates for trading strategies at the transactional level

	<i>Dependent variables (Trading strategies)</i>			
	Internalized (1)	Repetition (2)	Reciprocity (3)	Regional (4)
1. Internalized	0.951*** (0.033)	-0.561*** (0.037)	-0.386*** (0.053)	-0.706*** (0.037)
2. Repetition	-0.276*** (0.025)	0.573*** (0.027)	0.324*** (0.040)	0.147*** (0.027)
3. Reciprocity	-0.270*** (0.037)	-0.271*** (0.042)	0.582*** (0.056)	0.017 (0.042)
4. Regionalism	0.068** (0.025)	0.246*** (0.028)	0.362*** (0.041)	0.262*** (0.028)
Constant	0.321*** (0.091)	-3.531*** (0.102)	-7.152*** (0.160)	-1.662*** (0.099)
Observations	152,497	152,497	152,497	152,497
Log Likelihood	-88,759.070	-75,130.180	-44,049.470	-72,480.370

Notes: All regressions are logit models that control for the following variables: the effect of time (monthly variation), the exchange used for the trade, the location of the brokerage, its size, its connection (or not) to an economic conglomerate, the value of the transaction, the type of security traded (equity or fixed income) and the economic sector to which the security traded belongs (agriculture, manufacturing, government, wholesale and banking). Dependent variables take into account the type of trading strategy used in each transaction. Independent variables account for the share of last month's trading volume (sales only) that the selling brokerage devoted to each type of trading strategy. Standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

4.6 Conclusions

In this chapter, I addressed two additional research topics with regard to the multiple types of social-based trading strategies that exist in Ecuador's securities market. First, I showed there are variations in the way these strategies are deployed contingent upon specific characteristics and specializations of brokerages. Then, I

presented initial findings on the way actors combine these strategies on the long run.

Regarding the use of trading strategies, the results suggest that there are differences depending on the size and location of brokerages. First, we see that stronger and more resourceful actors rely most on their social ties. This contradicts previous work that has argued that embeddedness is mostly limited to smaller players who have a greater need to cope with uncertainty, opportunism, and other difficulties found in markets. This is a common proposition in market sociology and has been claimed in studies of financial markets (Baker, 1990). The results of this chapter show that this is not the case in the Ecuadorian securities market. On the contrary, they are consistent with other strands of theory (Granovetter, 1995, 2010; Khanna & Rivkin, 2000; Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004), which argue that large economic actors use their social ties to strengthen their privileged positions. In the case of Ecuador, it is the larger brokerage firms that take greater advantage of socially based trade.

Trading strategies that reveal the existence of social ties are also used differently depending on the location of brokerages. Actors domiciled in the capital city appear to be more dependent on them, contrary to what was initially expected. This is particularly interesting considering that brokers themselves characterize *guayaquileños* as more informal and drifting from market rationality but it is rather traders from Quito—characterized as more technical and rational—who rely more on their social ties. This points to the fact that the modernization of markets (or of the practices of market actors) does not necessarily disregard the existence of social ties, networks, and other devices, which must still be understood as constitutive elements of modern finance (Foureault et al., 2021). The study of the regional dimension of economic action in markets offers important opportunities to reveal the presence and functioning of social devices arising from the different practices and shared meanings that develop in certain locations and regions.

The analysis also shows how internalization is used by those brokerages who participate more in the secondary market. As explained in Chapter 2, Ecuador's

securities market is an atypical market. Transactions are largely concentrated in the primary market. The analysis in this chapter suggests that even those players who participate more in the secondary market do it for the closed groups of clients they represent. This provides additional fine-grained evidence on the underperformance of this market. If secondary market transactions largely imply liquidity movements for a closed group of clients of the same brokerage, there is no real development or expansion of this type of market. Additionally, primary equity trading through internalization restricts IPO to exclusive groups of investors and reflects the closed structure of capital in Ecuador (Larrea & Greene, 2018) and the hoarding practices of family-based economic groups (Carrión, 1991; Hanson, 1971; North, 1985, 2018; Pástor Pazmiño, 2016).

The chapter addressed a second research question regarding possible combinations of trading strategies over the longer term. In addition to further explaining how economic action works in this market, this question contributes to the current discussion on the association of different types of embeddedness (Beckert, 2010, 2011; Krippner, 2004; Krippner & Alvarez, 2007; Zukin & DiMaggio, 1990). On this issue, limited qualitative evidence and mostly preliminary statistical analysis were discussed as starting points for future stages of this project or similar research. Using the combination of several statistical models at three different levels of analysis (transactional, between-brokerage comparisons, and within-brokerage variation), I show evidence of several socially driven trading strategies that are used jointly by brokerages in this market. For this purpose, two ways of constructing the dependent and explanatory variables were tested. Thus, the use of trading strategies was expressed in their volume format and as proportions. Several combinations were tested which—with their limitations, e.g., when looking at ratio correlations—provided a pool of models that allowed us to retain recurrent results and perform robustness checks. This is not necessarily the only way to do this analysis and there is important room for improvement. Nevertheless, this exercise was designed in consideration of the data available so far and yielded some interesting results.

Findings on this second research question suggest that brokerages indeed privilege

pairs of strategies. A summary of the evidence on this coupling can be seen in [Table 4.4](#). Although I opted for statistical models studying possible combinations between pairs of strategies, preliminary data from the interviews suggest that there may be some sort of hierarchy, with internalization leading the way and then giving room to the other strategies before traders finally "play the market." This evidence opens the door to new questions beyond the scope of this thesis that could be explored with further data collection. In addition to the inclusion of other statistical techniques, a new phase of this project could include new rounds of interviews and could also rely on ethnographic methods to understand how and why traders combine pairs or groups of strategies over the long term, if there is a hierarchy in their use, or if there are cases in which strategies are used as a substitutes.

Chapter 5

The economic outcomes of embeddedness

5.1 Introduction

In the two preceding chapters I discussed the existence of different types forms of socially embedded transactions in Ecuador's securities market, the sources of their deployment, and initial evidence on the way brokerages use them jointly in the longer term. The present chapter is dedicated to exploring the economic consequences of those coexisting types of embeddedness. The main objective of this exercise is to understand what economic benefits or downsides these types of social trading deliver to players and what their implications are for the global performance of this market. As I explained in Chapter 2, overall indicators of this market show its limited development and the very continuity of its existence is puzzling. At the same time, transactions generate income for brokerage firms. They generate volumes of business with which, according to our qualitative evidence, they are not completely dissatisfied. Additionally, these actors receive commissions for their work, which feeds an important part of their income scheme. With all these in mind, is this general underperformance the aggregate of poor individual-level results from highly

embedded transactions? This would resemble the fate of the hive in the Fable of the Bees (Mandeville, 1714)—¹ where the lack of individual gain does not accumulate into collective benefit. Conversely, could the rich social life of this market produce individual benefits that somehow do not translate into positive overall performance, showing that private gain does not necessarily generate public benefit?

Answering this question is fundamental to understanding Ecuador's paradoxical securities market and connects this case study to broader discussions on the role of finance and economic development. In doing so, I propose several advancements to existing theory, particularly with respect to the economic outcomes of embeddedness. A first and straightforward contribution I make is to include two subjects that have not been studied in previous work and that help to trace the outcomes of the social life of this market: the prices of brokerage services and the trading volumes generated. On the first topic, the social studies of finance have investigated the pricing of complementary services such as underwriting (Podolny, 1994) and legal advice (Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004). However, we know very little about the way basic intermediary work is priced. The second topic, trading volume, a key indicator of individual and aggregate performance in this type of market, is addressed in a single paper by Baker and Iyer (1992) from a sociological perspective. This paper describes a theoretical model suggesting that social ties should favor larger trading volumes. However, we still lack empirical evidence on the effects of embeddedness on intermediaries and, most importantly, on markets themselves.

Apart from including new or nuanced variables to explain the outcomes of embeddedness in the Ecuadorian securities market, my research engages in two main theoretical discussions. In the first, I confront two opposing views that we find

¹I am referring to Bernard Mandeville's use of the early 18th-century poem *The Grumbling Hive: or, Knaves turn'd Honest*. In his book "The Fable of The Bees: or, Private Vices, Publick Benefits" (1714), Mandeville tells the story of a community of bees who decide to give up their desire for individual gain, causing the economy of their hive to collapse. In doing so, the philosopher argues that the development and prosperity of contemporary society is nothing but an aggregation of the selfish desires and actions of individuals. My gratitude to Bruce Carruthers for pointing me in the direction of this allegory.

in the literature on embeddedness and prices, particularly in works that draw on network sociology. The first looks at ties and networks as a means of channeling and enhancing trust. In this view, profits generated through prices are sacrificed as a way to protect and enhance relationships (Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004). A second view, closer to the work on cartels and oligopolies found within industrial economics (Fog, 1956; Perloff & Carlton, 1999), explains that ties and networks serve to restrict opportunities and impose prices (Yakubovich et al., 2005). In this chapter, I provide empirical evidence that challenges this separation between profit-driven and trust-driven embeddedness, a critique already raised by Tomaskovic-Devey et al. (2016). I also criticize the linear associations that previous literature makes between social ties and the pricing of financial services. I take advantage of the rich social life of the Ecuadorian securities market to show that different types of ties can serve both purposes. I also discuss how a particular trading strategy, internalization, can successfully foster both profit and trust.

The second discussion extends the focus on the impacts of embeddedness beyond the level of assets and firms. Paradoxically, scholarship generally refers to the embeddedness of markets while we still do not know much about its global effects. To discuss this in the case of Ecuador, I compare the effects of different types of social ties on trading volumes for brokerage firms and for the whole market. I found that the reliance on several trading strategies favors results for brokerages but comes at the expense of trading with other partners, thus affecting global market performance. Contrary to the bees in Mandeville's narrative, individual profit does not necessarily produce collective benefits. This finding is particularly relevant for understanding the puzzling existence of this market that, in the eyes of economists and policy-makers, is a *failure* that somehow continues to exist. The Ecuadorian complex embedded market seems to work fine for several actors' goals but its overall development does not take off.

The evidence discussed in this chapter suggests that efficiency at the actor level can coexist with poor global market development. Beyond the case of Ecuador and its particularities, this evidence should also draw our attention to the role of

modern finance. Even in atypical formats, financial markets continue to produce concentrated profits, deepening inequalities and contributing very little to overall economic development.

The chapter is organized as follows: Section 2 starts with a discussion of relevant theory on the economic outcomes of embeddedness and how it helps to ground my research questions. Within this section, I discuss three ways to advance the existing theory through the study of this market, and then present hypotheses based on relevant evidence from my qualitative analysis, initial statistical exploration, and previous theory. Section 3 presents quantitative data and the statistical models that test our hypotheses whose results are discussed in Section 4. Finally, Section 5 summarizes the chapter and concludes with a brief discussion of the contributions, limits, and scope of the analysis.

5.2 Studying the outcomes of embeddedness

The questions addressed in this chapter are related to previous discussions on the economic effects of market embeddedness. This exercise of examining the consequences of ties and other social devices is a fundamental part of this scholarship. For example, Uzzi (1996) acknowledged early on that the concept of structural embeddedness, as proposed by Granovetter (1985), helped us to understand that social ties shape economic decisions, but criticized it for failing to empirically test the impact of these ties on the survival of firms. Despite the fruitful research agenda that has developed within the structural tradition and in several critical approaches (Krippner, 2004; Krippner & Alvarez, 2007; Zukin & DiMaggio, 1990), there is still room to discuss the implications of embeddedness, especially if we accounts for multiple social devices operating simultaneously, as I explore in this thesis.

Various outcomes, stemming from different types of embeddedness, have been

discussed in both economic sociology and other neighboring disciplines such as management studies or economic geography. [Dacin et al. \(1999\)](#) explain that the existing conceptions of outcomes found in embeddedness research can be broadly organized into the following categories: institutional, governance, and allocation outcomes. In the first two groups, embeddedness looks at the social groundings of norms and regulations or the way social devices reduce the need for formal mechanisms to govern the relationships between economic actors ([Fligstein, 1996](#)). The third group differs substantially from the other two and studies the emergence of prices and their allocation. This group criticizes the conventional premise that prices are the mere result of the encounter between supply and demand and shows that the social devices into which economic decisions are embedded influence prices by either affecting market competition or the preferences of actors ([Beckert, 2011](#)).

The state of research on the outcomes of embeddedness is helpful but insufficient for the needs of this project in all of the three categories mentioned above. In this chapter, I refer directly to the third group of outcomes where the discussion on prices needs to be revisited and expanded² and to other relevant economic indicators that need to be included. I propose three ways of advancing the current research of financial markets that uses network sociology for the purpose.

First, we need to add new elements to what we already know about social ties, the mechanisms they mobilize, and the effects they have on prices, especially those charged for the services that make markets work. I explore the social grounds for the pricing of brokerage activities, something that has not been addressed in previous works. In addition, I use the study of brokerage pricing to discuss two competing views on the role of embeddedness and prices. One approach views embeddedness as a means of closure and utility maximization, while the other understands it as a form of cooperation that allows actors to cope with uncertainty and opportunism at the

²Despite pricing being one of the most fundamental economic practices and even though the interest in understanding the social grounding of prices goes all the way back to the works of Durkheim and Weber, contemporary sociology has still devoted very little attention to it ([Beckert, 2011](#)). A decade after the review by Beckert, this trend remains largely unchanged. Broader scholarship on the social grounding of prices and several other economic practices that have not been addressed remains both a debt and an opportunity for economic sociology.

expense of exclusive profit seeking. Second, I argue that new research should consider other relevant economic outcomes that have not yet been addressed, particularly the relationship of embeddedness to trading volumes, a simple but fundamental performance indicator in securities markets. Third, I argue that research on this topic has contributed to our understanding of the consequences of embeddedness for assets and for firms, but has said very little about the global effects of embeddedness for markets. In this research, I argue that the study of trading volumes helps to bridge the gap between firm-level outcomes and a global understanding of market performance.

In the following subsections, I combine theory and early empirical evidence (from the qualitative part of my investigation and from early statistical analyses) to discuss these three areas of opportunity for shaping key questions on the Ecuadorian securities market and for theoretical advancement. Subsequently, in the findings section, I explore the questions and hypotheses that arise in more detail using statistical methods.

5.2.1 The social grounds for the prices of financial services

Like in the broader scholarship on market embeddedness,³ the social studies of finance show a considerable interest in prices. The existing research on the social grounds of prices in finance can be organized into two groups. A first one is dedicated to analyzing the impact of social devices on the pricing of assets such as securities in capital markets or the impact on loans in conventional banking markets (i.e.:

³The most relevant topics explored by embeddedness research are firm survival (Baum & Oliver, 1991, 1992; Fischer & Pollock, 2004; Rank, 2014; Talmud & Mesch, 1997; Uzzi, 1996), firm defection from markets (Rao et al., 2000), partnership stability (Polidoro Jr et al., 2011), asset liquidity (Carruthers & Stinchcombe, 1999) and pricing (i.e.: C. Smith, 1990; Velthuis, 2003; Yakubovich et al., 2005; Zelizer, 1994). Since prices are fundamental elements for exchange and profit generation in market economies, the way social structures influence them occupies the most relevant place within this scholarship (Beckert, 2011) and recently, research on networks and price formation has expanded to the studies of deregulated markets such as in illegal drug trade (Duxbury & Haynie, 2021).

Baker, 1984; Pollock, 2004; Uzzi, 1999; Uzzi & Gillespie, 1999).⁴ A second group of less numerous investigations have focused on the way prices of financial services are contingent upon the social life of these markets. For instance, Podolny (1994) looks at the way a *status* order is importantly present in the US investment banking market (between 1982-1987) and the way it impacted the fees charged for the underwriting of corporate securities. In the case studied, clients were willing to pay higher fees for the participation of investment banks they perceived as better positioned than others and not necessarily providing services of different quality. Similarly, the work of Uzzi and Lancaster (2004), later expanded in Lancaster and Uzzi (2012), shows the association between social ties and the prices that law firms charge for their consulting and advice on financial operations. High-status legal firms charge higher prices for their services, not because they provide something qualitatively better, but based on the desire of customers to be associated with them.

These seminal works are the main examples of how sociological research on the pricing of financial services has targeted complementary activities rather than the more basic and general services that we find at the core functioning of markets such as intermediary services or brokerage.⁵ Of course, a keen reader could argue

⁴The pioneering work of Baker (1984) on a US outcry options market in the late 1970s explained the impacts of different types of broker networks on the fluctuation of trading prices. Criticizing the prescriptions of traditional microeconomic theory, Baker showed that smaller groups of brokers (rather than large impersonal crowds) produced more efficient communication and dampened option price volatility. Research on stock markets by Pollock (2004) explains that the embeddedness of underwriters to institutional investors in the US initial public offerings (IPO) market in the early 1990s had different effects on *underpricing* (the price difference of IPO stock between the beginning and the end of the first day of trading). This study argues that the embeddedness of the main underwriter with institutional investors is negatively associated with underpricing when the demand for the offering is low and positively associated with the amount of underpricing when demand for the IPO is high. In the domain of commercial banking, Uzzi (1999) and Uzzi and Gillespie (1999) studied the way social ties and existing networks constituted by corporate borrowers and bankers were determinant on the cost of borrowing in the US middle market for corporate credit in the late 1980s. They argue that, as generally expected, firms with expansive arm's-length ties (connecting borrowers to multiple creditors) have the bargaining power to facilitate their access to credit and are able to reduce rates and other related costs. However, their research also shows that firms that have created close-knit or *embedded* ties with their bankers are also able to lower their financing cost.

⁵Underwriting activities appeared at the end of the 17th-century in England along with the birth of shipping insurance markets (Wertheimer, 2006) a long time after brokerage had existed as one the oldest and most basic levels of activity in financial markets. Before the creation of the

that securities underwriting is a type of intermediary service.⁶ However, at its most general level, acting as an intermediary refers to the broad activity of selling or buying assets in markets and charging a fee for the job. In the past, intermediary or brokerage activities were carried on by individual traders whose revenues depended almost exclusively on it. In modern markets, this type of activity is still at the core of market dynamics and an important source of profit along with other activities that traders do such as arbitrage and speculation (Godechot, 2005).

Despite the importance of plain and simple intermediary activities, we know little about how traders generate profit through the prices they set for their work. In Ecuador's securities market, despite not being the only source of income for brokerage firms, fees play a fundamental role in their profit scheme. A possible explanation for why this has not been investigated in other cases could be the extent of the data and its availability. Unlike underwriting fees or charges for legal services, which can be obtained from contracts or summary records, fine-grained transactional information on large volumes of trades may not be directly accessible and are generally available through aggregated indicators. One of the advantages of the case studied here, in addition to its rich social embeddedness, is the availability of this type of fine-grained data, which allows, among other things, detailed study of the relationship between different types of social ties and the fees charged by brokerages, even at the level of each transaction. As I discuss below, this quality of data also makes it possible to study the relationship between different types of embeddedness and new relevant indicators, such as trading volumes.

pioneering securities markets of Antwerp in 1531 and Amsterdam in 1602, moneylenders in 14th-century Venice operated in very similar ways to contemporary traders as they offered their services for exchanging loans between private debtors and traded with government debt issues (Mueller, 2019; M. Smith, 2004).

⁶Securities underwriting is a specific type of guaranteed intermediary service that is used in IPOs where the investment bank, hired and paid a fee for the purpose, tries to sell an amount of the securities issued above a certain price at the risk of having to keep the securities on its books or take the loss of a sale at a lower price.

5.2.2 Two opposing views for embeddedness and prices

Both data from transactions and the testimonies of former and current traders in Ecuador's market suggest there are differences in the way brokerage commissions work. In some cases they appear as clear mechanisms to generate profits, and in others they are ways of maintaining trust relationships or unavoidable results of power imbalances. In this section, I discuss two competing views of embeddedness and prices. Although scholars largely agree that prices depend on the social structures present in markets, they differ in explaining the effects that ties and networks have on prices according to the mechanisms that these structures mobilize. In some research, the effects on prices reveal how ties and other devices are used to close opportunities and increase prices. Conversely, others understand ties as ways to mobilize and build trust. In this case, profits are sacrificed in order to protect and maintain these relationships. The different pricing schemes derived from the coexisting trading strategies in the Ecuadorian securities market show the need for this discussion.

According to [Beckert \(2011\)](#) the literature examining networks and their association to prices can be organized into three groups: power, status, and trust. In the first two groups, higher prices of assets or higher prices charged for financial services are understood as a product of ties/networks channeling regulatory power, restraining the possibilities of actors, sanctioning deviant behavior, or stratifying markets through status. For example, Beckert mentions that the study of [Yakubovich et al. \(2005\)](#) on the US electricity market from the late 19th century to the 1920s explains how leading actors imposed their pricing system, which was clearly the less efficient (at least in the short term). According to those authors, this was possible because leading actors in the industry mobilized support through their personal networks and relying on their organizational affiliations. The third group—that looks at the way embedded ties introduce trust—argues that lower prices charged to clients help preserve long-standing relationships in the inherent contexts of uncertainty and opportunism that characterize market exchange. In works within this group, including

those mentioned above by [Uzzi \(1999\)](#) and [Uzzi and Gillespie \(1999\)](#), embedded ties are associated with the decrease in the cost of credit.

Although it is not a direct intention of Beckert's review, this categorization helps to visualize that the associations that scholars make between the mechanisms studied and their effects on prices appear to follow well-defined patterns. A first association is found between power or status-driven ties and the imposition of higher prices by better placed actors. On the other side, research on embedded ties (that help actors cope with uncertainty and protect from opportunism) see those associated with lower prices that safeguard long-standing relationships. These two differing associations also appear to be true in markets where different types of mechanisms are at play. For example, in their research on the market for corporate law, [Uzzi and Lancaster \(2004\)](#) show that high-status law offices charge higher fees as a product of the additional symbolic value for their service. At the same time, the repeated interactions between law firms and their long-time clients reduce costs for the services provided and turn into lower fees.

Although they do not address the pricing issue, this implicit division between *profit-driven* and *trust-laden* ties has been signaled by [Tomaskovic-Devey et al. \(2016\)](#) from a critical perspective on classic works in structural sociology. Through the analysis of data from a survey on customer-supplier expectations and contractual relations of firms in Australia between 2000 and 2002, these authors argue that firms' expectations on higher profits overlap with social embeddedness accounted by actual contracts. Although the main goal of these authors is to show that single ties can be both driven by profit and trust, their evidence is interesting at a more general level: firms that engage in close-knit ties may not always be willing to sacrifice profit in detriment of social cohesion. When firms engage closely with counterparts, it could also be a strategy to increase prices and income.

This calls into question the notion of embedded ties as largely characterized by the mobilization of trust and reciprocity (i.e.: [Uzzi, 1996, 1997](#)) and brings the discussion closer to studies found in industrial economics that look at the role of

networks of actors in the form of cartels or oligopolies that limit competition and impose higher prices (Fog, 1956; Perloff & Carlton, 1999). On similar lines to the critique by Tomaskovic-Devey et al. (2016), I argue that social ties that exist in the Ecuadorian securities market can concretely serve different purposes and, therefore, be associated with different effects on the pricing for financial services.

In Ecuador's securities market, as I discussed in the preceding chapters, several types of ties explain the trading dynamics of brokerages. Some correspond to ongoing strategies with profit-driven goals while others are explained by the existence of larger social structures such as networks of economic groups (Carrión, 1991; Hanson, 1971; North, 1985; North & Clark, 2018; Pástor Pazmiño, 2016) or they are grounded in the historical regional division of the country (Burbano de Lara, 2012; Maiguashca, 1992). Preliminary qualitative evidence on brokerage pricing in the Ecuadorian securities market suggests that the association between socially embedded trading strategies and fees is not linear and, in some cases, ties can serve both as profit-maximizing and trust-fostering mechanisms. I start discussing the latter by looking at the evidence on this possibility of combining what seems to be opposing mechanisms in a single trading strategy.

In Ecuador's securities market we see puzzling evidence regarding *internalization*, an extreme type of embedded tie (see chapters 3 and 4).⁷ *Operaciones cruzadas* (Spanish-speaking traders in Ecuador use this name for internalized trades) were mentioned by interviewees (current and former traders) as a mechanism to increase transactional income while keeping business for a closed circle of clients. Respondents clearly refer to this strategy as profit-driven. For the purpose, I briefly recall how the interviewees characterize internalization (as I did already in chapter 3):

I would say that half of what you [a brokerage house] issue will be internalized so you get the selling and the buying commission as well. (A

⁷Just to recall: Internalized trading, internalization or cross-trading refer to an extreme type of preferencing in securities markets where the same brokerage is the buyer and seller in a transaction (Huang & Stoll, 1996). It is a rather common trading strategy in securities markets where the intermediary controls both sides of the trade for his own pool of clients or its own portfolio. See Chapter 3 for details.

former trader of a brokerage house linked to a large financial group)

Everyone tries to internalize because you get profits from the purchase transaction and you generate income from the sale as well. (A CEO and broker from an independent brokerage house)

Internalization is ultimately obtaining both two ends of a transaction. It implies a double effort of locating the seller and then getting the buyer. Why not internalize if I have the possibility to do it. Additionally, it means income for me on the buy side, income on the sell side, and higher income for the brokerage house. (A CEO and broker from an independent brokerage house)

The puzzling element is that traders also claim they use internalization as a way to take care of the relationships they have with their close clients and, to do so, they use commission discounts. In this sense, the reduction of fees works as a gesture or a gift that serves the purpose of preserving and deepening trust relationships, a key topic in sociology and anthropology (Godbout & Caille, 1998; Mauss, 1967). Gifts can also work when relations are discontinuous, asymmetrical, and account for the existence of power relationships (Bourdieu, 1989) like those that characterize the nature of markets. Thus, there could be a more complex story beyond a simple operation to "double the commission" that recalls the thesis that ties serve both profit-seeking and trust-preserving purposes claimed by Tomaskovic-Devey et al. (2016).

My evidence suggests that sometimes discounts are given only to a certain extent and/or work only on one side of the trade in order to maintain the profitable nature of the operation. For example, on the subject of internalized trading, one broker explained that this strategy aims to increase the profit per trade, but there is a different treatment for clients that they privilege (in this case, an important mutual bank):

With their deposit certificates we internalized the operations and kept both commissions. I have not done work for free for anyone but I charged

them, my client, the mutual bank [anonymized], a minimum commission on the selling side. Then I looked for a buyer who would pay a normal commission. (A former CEO and broker of a small independent brokerage firm)

The interviewee's comment "not doing work for free" responds to my surprise to see, in my first inspection of trading data, a significant number of zero-value commissions, notably in cases of internalization. Other interviewees also reported on the existence of discounted and waived commissions. Some considered it as an unfavorable practice for the market while most found it to be a normal tactic to preserve their relationships with key clients. A CEO and broker from a big trading firm explained that discounted commissions are a way to take care of privileged clients, especially large banks:

You cannot charge them a high commission because you run the risk that they will leave you for another brokerage firm (...) For example, with banks, banks are what you can call a flat market. You can't charge, you can't make anything. There are brokerage houses that practically give their work away, and if you can't charge zero, you charge a dollar. (A trader from a large brokerage firm linked to a banking group)

This evidence, supported by the critique of previous theory ([Tomaskovic-Devey et al., 2016](#)) helps to raise a first question on the subject: how can the fees of internalized trading serve both to maximize profits and to protect brokerage-client relationships? To go beyond the actors' narratives in answering this question, we need to look at the trading data. An according hypothesis to be investigated in the statistical section can be expressed as the following statement:

H1) Discounted prices for brokerage services on internalized trading do not undermine gains and reflect that it serves both as a profit-driven and a trust-laden trading strategy.

What about the other types of ties or strategies that are relevant in this market? Interviewing did not provide evidence on whether other structural ties, repeating

partnerships or reciprocal trading, had any effect on the fees charged by brokerages. In this case, I opted to rely on existing literature ([Lancaster & Uzzi, 2012](#); [Uzzi & Lancaster, 2004](#)) and hypothesize that embedded ties go along with reduced prices for services provided in financial markets. If this is true for other cases, can it work for trading fees in this national securities market? Following this discussion we can expect that:

H2) Structural trading strategies (repetition and reciprocity) associate with lower brokerage fees and favoring the preservation of long-term embedded ties.

In the case of trading between brokerage firms owned by or linked to large economic groups, we have evidence (discussed in Chapter 3) of the use of the securities market for accounting maneuvers that increase the banks' position in technical equity, to improve their indicators, and not necessarily as a source of trading income. We also know that many of these moves are reciprocal. Although there is no precise qualitative evidence of discounts in these cases, we would expect a negative correlation of this type of trading with the fees charged by bank brokerages. We can describe this type of trading as a closure strategy based on group membership ([Parkin, 2019](#)) or a type of opportunity hoarding ([Tilly, 1998](#)). According to these theories, fees are less important in this type of trading, and discounts may be a way to ensure the participation of members of the closed group of bank-linked brokerages while keeping other players away. Similarly, trading on a regional basis could be understood as a closure strategy or hoarding around location in one or another city/region. Thus, we might also expect regional trading to be associated with lower fees. All of these elements suggest that:

H3) Regional trading and trading between bank-brokerages serve to reinforce group memberships and, for the purpose, imply lower brokerage fees.

As I have mentioned, these hypotheses require further testing through statistical analysis since qualitative evidence on the association between ties and commissions

has been relevant for building hypotheses but it is difficult to reach stronger conclusions from it. Additionally, even if we had more evidence coming from interviews or other qualitative data, the issue of validity of cognitive data for network analysis remains (Baker, 1984; Bernard, Killworth, Kronenfeld, & Sailer, 1984; Killworth & Bernard, 1976). Therefore, to explore these hypotheses we should rely on behavioral data (actual records) that is fortunately available for the trades recorded by Ecuador's securities exchanges and collected for this research.

A final issue is how prices contribute to the generation of income for brokerages. As I mentioned before, brokerage is still an important source of profit along with other activities that traders do (Godechot, 2005) and this is particularly true in Ecuador's market. If trading relies heavily on structural ties and other socially embedded strategies, one possible hypothesis is that brokerages that collect more fees (and have larger trading income) also rely more on the trading strategies that are studied. By this logic we should analyze whether:

H4) Greater deployment of socially embedded trading strategies associates with increased trading income for brokerages.

All of the above hypotheses suggest that there is no fixed association between embeddedness and the pricing for brokerage services. If this is the case, the two competing views in embeddedness literature can coexist in more complex assemblages. Hypothesis H1 suggests that internalized trading uses fee discounts to serve both profit-driven and trust-laden purposes. H2 and H3 argue that not only structural ties but also other types of socially embedded trading can associate with lower prices in order to favor social relations in the inherent contexts of uncertainty and opportunism. Finally, H4 suggests that fee discounts may not necessarily affect the aggregated income performance of brokerages.

5.2.3 The global outcomes of embeddedness

A simple—yet important—way to measure the performance of brokerages and the market itself is to look at trading volumes. In the case studied, limited trading volumes are one indicator for the lack of development of this market. Therefore, I wonder if the economic outcomes of socially embedded transactions are behind this limited overall performance, or if there can somehow be profits at the actor level without this translating into improved performance for the market.

At its most basic level, trading volume refers to the total number of shares of a security that are traded during a given period⁸. Closely related to the liquidity of a security, trading volume is a key measure used by traders when they decide why to buy or sell securities. Aggregated trading volume also accounts for the performance of brokerages in terms of the amount of business they generate. Finally, global trading volumes are also used to express the overall performance of the market. However, these two aggregated levels of trading volumes are not at all exploited in previous studies despite their importance to account for economic performance of trading firms and this type of markets.

In sociological literature, the only direct effort to study trading volumes in securities markets can be traced to a publication by [Baker and Iyer \(1992\)](#), which has received much less attention than Baker's seminal [1984](#) paper on the social structure of a national securities market. In fact, this is a follow-up paper that seeks to extend and generalize Baker's original findings on the effects of networks on price volatility. Using a theoretical model of trading in financial markets, Baker and his co-author explain that different network configurations found in empirical markets (as mechanisms for channeling information) should produce different values for the variance and volume of trades of an asset, even when the model includes investors as homogeneous agents and when the information flowing through the system is defined as random and unbiased.

⁸This is a common definition retrieved from: <https://www.schwab.com/resource-center/insights/content/trading-volume-as-market-indicator>

Nevertheless, Baker and Iyer's theoretical conclusions remain at the first level of analysis: they focus on the effect of network structures on the behavior of traded assets. Apart from stating the need to explore the levels they did not address, their claims can be extrapolated to provide some theoretical grounding for the working hypotheses of this chapter. If social ties favor better asset performance (larger trading volumes), then brokerages that engage in these transactions should see them contribute to their overall performance. Thus, extending Baker and Iyer's theses on asset behavior, we can expect that:

H5) Greater deployment of embedded trading strategies should favor an increase of trading volumes for brokerages.

The above hypothesis looks at the effects at the firm level, which I want to compare to the effects that social ties can have on the overall performance of the market, a topic that has been neglected by the scholarship on the embeddedness of markets.⁹ The comparison of trading volumes at the brokerage and market levels also aims to elucidate an important puzzle about this particular market: the few existing economic studies on it (Arauz, 2009; Pazmiño, 2000), the opinions of politicians and regulators,¹⁰ share the vision that Ecuador's securities market is a *failed market* due to its small size and inability to expand. Chapter 2 showed that trading volumes and

⁹In addition to prices, the embeddedness literature has focused on the effects that social ties have on firms, such as their survival, defection, and partnership stability. For example, Uzzi (1996) shows that firms connected by embedded rather than arm's-length ties have better survival probabilities up to a certain threshold, and the ideal scenario for them is to be part of an assemblage that combines both types of ties. However, like this seminal example, research on the subject leaves unattended the relationship between embedded ties and overall market performance. Interestingly, this scholarship generally speaks of the effects of embeddedness of markets, but we still do not know much about its global effects.

¹⁰The vision of the market that politicians and institutions in charge of economic policy and regulation have was introduced in Chapter 2. To give just one example, on March 21, 2011, a roundtable discussion was held at the Universidad Andina Simón Bolívar in Quito between the Minister of Economy (who at the time was in charge of a comprehensive reform of the securities market law), the President of the Quito Stock Exchange, and the President of the Association of Brokerages. The Minister of Economy, Katuska King, presented her reform bill, which began with a series of criticisms of the market's performance, which she described as "incipient." A summary of the roundtable was prepared by the University and is available here: <https://docplayer.es/15578199-Mesa-de-analisis-la-nueva-ley-de-mercado-de-valores.html>

other indicators point to a significantly lower performance of the Ecuadorian market compared to neighboring markets in similar economies. At the same time, market participants continue to engage in practices aiming to increase their income and are not disconnected from the complex social dynamics of this market. Can these practices, which serve the economic and social purposes, be part of the explanation for the underdevelopment of the market? On this point, I hypothesize that:

H6) Although socially embedded trading strategies favor brokerages' trading volumes, this comes at the expense of overall market performance.

This last hypothesis is directly related to the previous one. This bridging suggests that the social ties that exist in this market are associated with better economic performance for brokerages (H5), while coming at the expense of broader trading and therefore not contributing to the overall performance of the market (H6). Next, I perform statistical tests on these hypotheses on the embeddedness of trading and its relation to prices and trading volumes.

5.3 Data and methods

5.3.1 Data

As in the previous two chapters, the main data set used for this analysis consists of the records of all market transactions executed in the Ecuadorian securities market between January 1, 2007 and June 30, 2017. The final version of this main data set contains several variables for each chronologically ordered transaction. Among these variables, the following are relevant for the analysis of this chapter:

- a) Date of transaction
- b) Type of security

- c) Economic sector of the issuing firm
- d) Name of brokerages involved in the transaction (seller and buyer)
- e) Location of brokerages (city of the headquarters, Quito or Guayaquil)
- f) Belonging of brokerages to an economic group (*grupo económico*)
- g) Type of trading market (primary or secondary market)
- h) Amount traded in USD
- i) Exchange used for the transaction (Quito or Guayaquil)
- j) Buying and selling commissions perceived by brokerages for each transaction

In this chapter, this first data set will be used in order to study the variation of commissions perceived in each transaction contingent upon different types of socially embedded trading. As in the previous chapter, two other data sets (created from the original one) are included. In order to study between-brokerage variation of commissions perceived and traded volumes, we use a second data set containing the average¹¹ monthly activity of the 51 brokerages that were active during the period of analysis. This second data set includes the monthly average values for the following variables:

- a) Number of trades closed by each brokerage
- b) Value of the transactions closed by each brokerage
- c) Commissions perceived by brokerages for sales and purchases of securities
- d) Transactions belonging to each type of trading strategy (internalization, inter-period repetition, inter-period reciprocity, intra-regional trading and inter-banking trading)

¹¹The monthly average was privileged over the total period value in order to account for differences in brokerage activity: not all brokerages were equally active during the entire analysis period.

- e) Transactions closed by each brokerage in the primary and secondary markets
- f) Equity and debt transactions closed by each brokerage
- g) Transactions closed by each brokerage with securities issued by firms belonging to key economic sectors: agriculture, manufacturing, government, wholesale and banks.

The third data set includes the monthly variation of dependent, explanatory and control variables for each brokerage during the period of analysis. This one accounts for the total monthly values, for each brokerage, for the same variables that were listed above for the second data set. Study of data sets 2 and 3, enables comparison of the results for the relation between dependent variables and predictors across brokerages (between variation) and for each given brokerage over time (within variation).

Finally, for the analysis of this chapter, a fourth data set was created for the global performance of variables for the whole market during the full period of analysis. Therefore, this one includes the following monthly variables for the entire market:

- a) Total number of transactions and trading volumes
- b) Total number of transactions and trading volumes in the secondary and primary market
- c) Total number of transactions and trading volumes on each type of strategy (internalization, inter-period repetition, inter-period reciprocity, intra-regional trading and trading between bank-brokerages)
- d) Total number of transactions and trading volumes on equity and debt securities
- e) Total number of transactions and trading volumes with securities of firms belonging to key economic sectors: agriculture, manufacturing, government, wholesale and banks.

5.3.2 Dependent variables: brokerage commissions and trading volumes

The hypotheses discussed previously refer to two dependent variables that will be studied in this chapter as key economic outcomes of different types of embeddedness. These two variables refer, at different levels, to the commissions perceived by brokerages and to trading volumes.

5.3.2.1 Brokerage commissions

The brokerage commission or fee is the price charged by an intermediary (a brokerage firm) for the execution of trades on behalf of a client in the market. In Ecuador's securities market, brokerage is not the only service provided¹² by this type of intermediaries but represents the most recurrent activity and a key source of income. In this market, brokerages do trade sometimes for their own portfolio but this activity is marginal compared to the work done for third parties.¹³

The collection of commissions contributes largely to what we could call *trading income*. The trading income scheme in the Ecuadorian market is much simpler than in other securities markets. This is partly explained by its focus on debt rather than equity securities, as discussed in Chapter 2. Unlike in conventional stock markets, playing the bid-ask spread of equity securities contributes very little to brokerage profits. In this market, the brokerage's income comes largely from the fees charged for executing the order. The securities exchanges in Ecuador keep a record of the commissions charged by the selling and buying brokerages of a transaction. As I mentioned before, these records were not publicly available but were requested and delivered for this research. The existence of these records facilitates the access to

¹²Other financial services include structuring and issuance of securities, underwriting, portfolio management and financial advice. These activities are detailed in Article 58, Book II (Securities Markets) for Ecuador's Monetary and Financial Organic Code.

¹³This fact was discussed and verified with interviewees particularly on the subject of internalized trading.

this high-volume data on a good indicator of income generation for these market actors.

It is important to point out that, in Ecuador's market, brokerage firms set commissions freely by mutual agreement with the clients they represent.¹⁴ Commissions are established as percentages of the amounts traded by the brokerage on behalf of the client. Brokerage firms usually establish minimum commissions for the service (between 50 and 100 USD) particularly in the case of low value transactions. However, there are cases where commissions are heavily discounted or waived (set to zero). For the purpose of this thesis, selling and buying commissions are studied at the level of each transaction and aggregated on a monthly basis for each brokerage and for the whole market when the analysis so requires. The values for commissions are measured in constant US dollars (deflated using the Consumer Price Index). Commissions (and trading volume, described below), are expressed in US dollars and no currency conversion has been done as Ecuador is formally a dollarized economy since 2000.

5.3.2.2 Trading volume

Trading volume is a simple and a key performance indicator in securities markets. As I mentioned before, the advantage for this research is that this measure allows us to study the performance of brokerages and also the overall performance of the market. First, trading volumes are calculated as the total value of the securities

¹⁴Within the period of analysis (2007-2017), the securities market in Ecuador was regulated by two norms: the Securities Market Law of 1998 and its reform of 2014. According to Article 225 of the 1998 law, "the commissions, fees or rates charged to the clients of the entities regulated by this Law shall be freely stipulated by the contracting parties, without the need to rely on the rates or tariffs determined by associations, unions or other third parties" (my translation of the original Spanish). Thus, brokerages were free to define the commissions they charged for their services. The 2014 reform determined, in its fourth general provision, that the Monetary and Financial Policy and Regulation Board is competent to define parameters for establishment of commissions: "The Monetary and Financial Policy and Regulation Board shall establish the parameters to be observed by the institutions regulated by this Law for the establishment of commissions, fees or tariffs charged to their clients" (my translation of the original Spanish). However, this regulation was never issued and brokerages continued to set their commissions without any limitation. Interviews with market actors also confirmed this fact.

traded by a brokerage during the course of a month. Second, for the analysis on global market performance, trading volumes refer to the total value of transactions carried out in the market during the course of a month. These two different measures of trading volumes were included in their respective data sets and were constructed from the sum of the values of each transaction closed by each brokerage during the analyzed period.

The original data that I used to create these variables (the data on the value traded in each transaction) is included in the main data set used for this investigation and, as already explained, is fed by the records of both securities exchanges. As with commissions, the records for the value of each transaction were deflated by the Consumer Price Index, so that trading volumes are measured in constant US dollars.

5.3.3 Independent variables

The four data sets that are used for the analysis of this chapter include several variables that account for different types of social ties which, according to preliminary evidence and theory, are relevant explanatory devices of economic action in this market. Just to recap, this types of ties or trading strategies are: (1) recurrent collaboration, (2) reciprocity, (3) internalization, (4) regionalism, and finally, (5) membership in large economic groups that I call inter-bank trading. These variables are studied in different ways depending the type of analysis conducted. First, for the analysis at the transactional level, they are used as dummies that account for different trading strategies and ties that could overlap have have been duly separated.¹⁵ Second, for models that study between-brokerage and within-brokerage variations, these variables are constructed as monthly proportions with respect to the total volume of operations carried out by the brokerage in the same period.

¹⁵Internalized trading can be mistakenly captured by other types of ties. For example, an internalized trade can be wrongfully considered as a regional transaction. All these possible artifacts have been corrected.

Finally, for the analysis of the market as a whole, these independent variables are proportions of each type of trading with respect to the total trading volume of the market during the given month.

5.3.4 Control variables

Several control variables have been included in models for their known or potential impact on the variation of fees and trading volumes in this market and considering known effects on capital markets. In the cases of monthly and overall market analysis, to be consistent with the independent variables, they are calculated as proportions.

A control variable makes a distinction between primary and secondary market trading. I also created a measure that accounts for the volumes traded in equity securities traded versus debt securities. Normally, in securities markets, equity and secondary market trading account for a larger part of market performance. We know that in Ecuador's securities market this is not necessarily the case. The separation of the market into two exchanges, one in Quito and another in Guayaquil, is also taken into account through a specific variable. A series of controls account for the proportion of trading destined to securities issued by firms in relevant economic sectors: agriculture, manufacturing, government, wholesale and banks.

Finally, in the models that study commissions as a dependent variable, total trading volume is included directly (not as a proportion) as an evident control: income coming from commissions varies depending on the volumes traded. The more volume, the more income collected from commissions.

5.3.5 Estimation

Two types of regression models are used for the analysis: linear models and time series models. Linear models are used to analyze the relation between the different types of ties with commissions perceived and trading volumes. Times series models are destined to market-level analysis of the association between trading volumes and our key explanatory variables.

Each type of analysis matches each type of model in the following way:

For the study of commission variation

- **Transactional analysis:** linear models with time fixed effects, brokerage fixed effects (on both brokerages engaged) and clustered-robust errors.
- **Between-brokerage monthly variation:** linear models with standard errors
- **Within-brokerage monthly variation:** linear models with time fixed effects, brokerage fixed effects and clustered-robust errors.

For the study of trading volumes

- **Between-brokerage monthly variation:** linear models with standard errors
- **Within-brokerage monthly variation:** linear models with time fixed effects, brokerage fixed effects and clustered-robust errors.
- **Market-level analysis of trading volumes:** I have chosen to use time series models to study the monthly evolution of aggregated market performance variables in relation to aggregated trading preferences for different types of embeddedness. Specifically, I use the Auto-Regressive Distributed Lag (ARDL)

(Pesaran, Shin, et al., 1995; Pesaran, Shin, & Smith, 2001) as it allows variables in the models to be non-stationary and co-integrated. These ARDL models are used to analyze market trading volumes conditional on aggregate market preferences for different types of trading strategies. I have included one lag for each independent, dependent, and control variable that I believe is appropriate for this case. This choice has been confirmed by looking at the Akaike Informational Criteria (AIC).

5.4 Findings

The findings of this statistical analysis are organized into two subsections referring respectively to the outcomes studied in this chapter: commissions and trading volumes. Each subsection addresses the corresponding questions and hypotheses to be tested. Finally, within each subsection, different levels of analysis are presented: transactions, monthly (between and within variation), and the market as a whole.

The hypotheses formulated in Section 2 are briefly recapitulated and organized here by the outcomes studied:

On the variation of commissions and trading income

- H1) Discounted prices for brokerage services on internalized trading do not undermine gains and reflect that it serves both as a profit-driven and a trust-laden trading strategy.
- H2) Structural trading strategies (repetition and reciprocity) associate with lower brokerage fees and favoring the preservation of long-term embedded ties
- H3) Regional trading and trading between bank-brokerages serve to reinforce group memberships and, for the purpose, imply lower brokerage fees.
- H4) Greater deployment of socially embedded trading strategies associates with increased trading income for brokerages.

On the variation of trading volume

- H5) Greater deployment of embedded trading strategies favors the increase of trading volumes for brokerages.
- H6) Although embedded trading strategies favor brokerages' trading volumes, this comes at the expense of overall market performance.

5.4.1 Brokerage commissions and trading income

A first question I set out to elucidate is whether social ties (that reflect in different trading strategies) are associated with varying brokerage fees. Three possibilities are tested: higher fees accounting for closure or monopoly building (Fog, 1956; Perloff & Carlton, 1999; Yakubovich et al., 2005), lower prices as a way to preserve long-time brokerage-client relationships (Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004), or a mixed arrangement suggesting that prices can foster trust and succeed at keeping profit-maximization goals (Tomaskovic-Devey et al., 2016).

To start, I study what happens at the transactional level. I look at whether brokerage fees that are charged for each trade show specific variations depending on the type of trading strategy used. Table 5.1 shows the coefficients for the association between commissions and the trading strategy used per transaction. Two types of trading ties, regional and inter-bank trading (Table 5.1, lines 4 and 5, models 1-3), are associated with lower prices charged by the selling brokerage (Model 1), the buying brokerage (Model 2) and most clearly when the commission share is studied per brokerage involved (Model 3). These results, that corroborate hypothesis H3, are similar to the findings of Uzzi and Gillespie (1999) and Lancaster and Uzzi (2012) where lower prices are associated with ongoing ties between clients and firms. What is new is the fact that these ties are different to those studied before by structural sociologists.¹⁶ These are regional and inter-bank ties that exist, respectively, on the

¹⁶Repeated and reciprocal ties (Table 5.1, lines 2 and 3), that refer directly to the structural tradition of embeddedness, do not deliver strong estimates and we cannot conclude on an association

basis of group membership.

Table 5.1: Linear estimates for commissions (transactional)

	<i>Dependent variable (commission perceived):</i>		
	Selling (1)	Buying (2)	Total (per brokerage) (3)
1. Internalized	-0.372*** (0.075)	-0.445** (0.144)	0.158+ (0.096)
2. Repetition	-0.007 (0.034)	-0.091+ (0.052)	-0.033 (0.028)
3. Reciprocity	0.005 (0.042)	0.020 (0.079)	0.022 (0.043)
4. Same domicile	-0.061 (0.072)	-0.123 (0.083)	-0.124* (0.062)
5. Inter-banking	-0.214* (0.085)	-0.019 (0.161)	-0.226* (0.103)
Time fixed effects	YES	YES	YES
Brokerage(s) fixed effects	YES	YES	YES
Observations	154,735	154,735	154,735
R ²	0.539	0.544	0.645
Adjusted R ²	0.539	0.543	0.645

Notes: All regressions are linear models with the fixed effects detailed above and including the following controls: transaction (value traded, stocks/fixd rent security, and economic sector), exchange used (Quito/Guayaquil) and type of market (secondary/primary). Clustered-robust errors in parentheses. +p<0.1; *p<0.05; **p<0.01, ***p<0.001

If the relationship between fee discounts and social ties holds for regional trading and trading between bank-brokerages, the same is not quite true for internalized trading. The coefficients in [Table 5.1](#), Line 1 show that in this type of trading ties, profit-driven strategies can coexist with trust-building goals ([Tomaskovic-Devey et al., 2016](#)). My estimation shows that buying and selling commissions are negatively associated with internalized trading ([Table 5.1](#), Line 1, models 1 and 2). This is consistent with traders' statements explaining how they use discounts to maintain and increase customer loyalty. However, the overall result for the brokerage firm is slightly positive ([Table 5.1](#), Line 1, Model 3). This explains the puzzle of hypothesis

between those types of transaction and pricing as in H2.

H1 and helps us to understand what might initially appear to be a contradictory version given by respondents. In fact, this trading strategy (which is known to be widespread in the securities markets) can be successfully profitable while still allowing brokerages to foster trust-laden relationships with their clients by reducing commissions. Internalized trading shows that the competing views we find in the embeddedness literature are not radically separated in this case.

Brokerage firms' reliance on trading strategies may also have relevant effects on their income. Drawing on sociological theory that critiques conventional views of market efficiency, I hypothesized that reliance on these embedded trading strategies should favor trading outcomes for brokerages. This should imply higher trading revenues for them in the long run (H4). A first way to explore this is to look at the differences in perceived income across brokerages as a function of their greater or lesser use of different trading strategies. The coefficients for this analysis are reported in [Table 5.2](#). These results suggest that brokerages that perceive greater trading income over the course of a month are also more engaged in all types of trading strategies, particularly internalized trading and regional and repeating interactions. In other words, when we compare the average monthly results of brokerages, different types of embeddedness are not detrimental to income, and it is the higher earners that do most of their trading relying on socially embedded strategies.

To further test this hypothesis, I turn to within-brokerage analysis. Since all brokerages employ these trading strategies to some extent, we can analyze whether months in which they engage more or less in each of these strategies are associated with variations in trading income. [Table 5.3](#) shows the results of models that explore this. In particular, we find a negative relationship between monthly internalization and monthly selling income. This suggests a possible explanation: if brokerages opt more for internalization, this may come at the expense of profiting from other types of trading strategies, and thus have a negative impact on the brokerage's overall monthly income.

Table 5.2: Linear estimates for trading income (between-brokerage variation)

	Dependent variable		
	<i>Average monthly income from commissions</i>		
	Selling	Buying	Total
	(1)	(2)	(3)
1. Internalized	3.346** (1.077)	4.291* (1.729)	6.238*** (1.683)
2. Repetition	5.653** (1.623)	1.982 (1.815)	5.738* (2.727)
3. Reciprocity	-1.325 (2.020)	3.930* (1.607)	1.864 (3.367)
4. Same domicile	3.699* (1.549)	3.964 (2.563)	6.786* (3.170)
Observations	51	51	51
Log likelihood	-61.713	-72.257	-80.072

Notes: All regressions are linear models and include the following controls (average of monthly activity for the full period): volumes traded, proportion of secondary market trading, proportion of trading on stocks, and proportions of trading with securities from relevant economic sectors. Standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

In summary, we get some nuanced results from testing hypothesis H4. Embeddedness is not detrimental to profits, as we see that higher incomes are associated with greater use of the trading strategies studied. However, if brokerages choose to rely heavily on internalization, it may be detrimental to profits based on other types of trading.

Table 5.3: Linear estimates for commissions (monthly within-brokerage variation)

	Dependent variable		
	<i>Monthly income from commissions</i>		
	Selling	Buying	Total
	(1)	(2)	(3)
1. Internalized	-0.308** (0.090)	-0.092 (0.150)	-0.086 (0.139)
2. Repetition	0.056 (0.089)	-0.053 (0.086)	0.092 (0.086)
3. Reciprocity	0.020 (0.117)	0.142 (0.100)	0.117 (0.113)
4. Same domicile	-0.025 (0.099)	0.334+ (0.198)	-0.005 (0.130)
5. Inter-banking	0.041 (0.403)	0.003 (0.372)	0.418 (0.473)
Time fixed effects	YES	YES	YES
Brokerage fixed effects	YES	YES	YES
Observations	3,996	3,877	4,131
R ²	0.822	0.828	0.882
Adjusted R ²	0.813	0.819	0.876

Notes: All regressions are estimated using linear models with time and brokerage fixed effects. All models include controls for monthly volumes traded and the proportional trading of the following: secondary market trading, trading of stocks, and trading with securities from different economic sectors. Cluster-robust standard errors in parentheses. +p<0.1; *p<0.05; **p<0.01,***p<0.001

5.4.2 Trading volumes

Similarly to the analysis for trading income, I created several models for the relation between different types of trading strategies and monthly trading volumes generated

by brokerage firms. Once more, I provide between-brokerage and within-brokerage analysis in the following manner: [Table 5.4](#) displays the results of models studying the differences in average monthly trading volumes between brokerages and [Table 5.5](#) gathers the coefficients of models analyzing the monthly variation for trading income for each brokerage.

The coefficients presented in [Table 5.4](#) (between-brokerage variation) suggest that brokerages with greater engagement in internalized trading and inter-period repetition produce larger trading volumes. Conversely, brokerages that engage more in regional trading display lower average trading volumes. When we look at the monthly variation for each brokerage ([Table 5.5](#)), despite some nuances, the findings for internalized trading ([Table 5.5](#), Line 1), inter-period repetition ([Table 5.5](#), Line 2), and same-domicile trading ([Table 5.5](#), Line 4) are similar to those coming from between-brokerage models. In this type of analysis, larger reliance of a brokerage on reciprocal trading also correlates positively to larger trading volumes ([Table 5.5](#), Line 3).

Based on this, we could conclude that larger reliance on close-knit or embedded ties in this market (internalized, repeating, and reciprocal) associate with greater trading volumes for brokerages as expected by hypothesis H5. This confirms previous work in economic sociology suggesting that structural embeddedness of economic action in markets can contribute to better economic performance of firms ([Uzzi, 1996](#)). In sociological studies on financial markets, it provides further empirical evidence on the positive relation between structural embeddedness and trading volumes in securities markets ([Baker & Iyer, 1992](#)).

One of the central questions of this project is to compare the economic outcomes of different types of social trading at the actor level with the overall performance of the market. To move beyond the consequences of embeddedness at the firm level, [Table 5.6](#) displays ARDL estimates for the monthly variation of market activity. We see that, with the only exception of internalized trading that correlates positively to overall trading volumes, the shares of all other types of trading strategies deliver

Table 5.4: Linear estimates for volumes traded (between-brokerage variation)

<i>Dep. variable (average monthly volumes traded):</i>			
	Selling	Buying	Total
	(1)	(2)	(3)
1. Internalized	3.065*** (0.705)	0.735 (1.105)	1.384+ (0.721)
2. Repetition	5.236*** (0.986)	4.808*** (0.877)	4.454*** (0.993)
3. Reciprocity	-2.169 (1.573)	1.799+ (0.993)	-0.706 (1.505)
4. Same domicile	-1.555 (1.210)	-4.974** (1.443)	-5.088*** (1.164)
Constant	11.784*** (1.479)	13.710*** (0.861)	15.310*** (0.999)
Observations	51	51	51
Log likelihood	-49.841	-49.408	-38.815

Notes: All regressions are linear models and include the following controls (average of monthly activity for the full period): volumes traded, proportion of secondary market trading, proportion of trading on stocks, and proportions of trading with securities from relevant economic sectors. Standard errors in parentheses.
⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

Table 5.5: Linear estimates for volumes traded (within-brokerage variation)

<i>Dependent variable: monthly volumes traded</i>			
	Selling	Buying	Total
	(1)	(2)	(3)
1. Internalized	-0.136 (0.152)	0.116 (0.240)	0.738*** (0.170)
2. Repetition	0.356* (0.145)	0.941*** (0.196)	0.361* (0.154)
3. Reciprocity	0.096 (0.165)	0.144 (0.142)	0.805*** (0.166)
4. Same domicile	-0.942*** (0.179)	-0.981*** (0.202)	-1.261*** (0.197)
5. Inter-bank	-0.063 (0.247)	-0.118 (0.388)	-0.177 (0.295)
Time fixed effects	YES	YES	YES
Brokerage fixed effects	YES	YES	YES
Observations	3,996	3,877	4,131
R ²	0.671	0.713	0.741
Adjusted R ²	0.655	0.697	0.728

Notes: All regressions are estimated using linear models with time and brokerage fixed effects. All models include controls for the monthly proportional trading of the following: secondary market trading, trading of stocks, and trading with securities from different economic sectors. Cluster-robust standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

negative coefficients. This is particularly important when we consider that dyadic structural ties were strongly associated with larger trading volumes. This was the case of repeated and reciprocal ties (Table 5.5, lines 2 and 3). Their negative contribution to market results (Table 5.6, lines 2 and 3) could be explained as reliance of brokerages on these strong dyadic ties at the expense of trading with other partners and, thus, affecting overall market performance. In turn, regional trading and trading between bank-brokerages do not contribute to better trading volumes at all levels analyzed.

Table 5.6: ARDL estimates for monthly volumes traded in the market

	<i>Models</i>					
	(1)	(2)	(3)	(4)	(5)	(6)
	ARDL(1,1)	ARDL(1,1)	ARDL(1,1)	ARDL(1,1)	ARDL(1,1)	ARDL(1,1)
1. Internalization	-0.034 (0.120)					0.608*** (0.171)
2. Repetition		-0.556*** (0.165)				-0.456** (0.142)
3. Reciprocity			-0.241* (0.111)			-0.330* (0.136)
4. Same domicile				-0.494*** (0.128)		-0.462** (0.167)
5. Inter-banking					-0.329*** (0.050)	-0.213*** (0.052)
Constant	12.492*** (1.781)	10.584*** (1.685)	12.360*** (1.739)	11.940*** (1.674)	10.513*** (1.630)	8.299*** (1.484)
F-statistic (cointegration)	10.176***	8.0881***	10.401***	10.454***	9.3521***	4.7112**
R ²	0.238	0.356	0.269	0.340	0.446	0.619
Adjusted R ²	0.179	0.306	0.212	0.288	0.403	0.558
Observations	125	124	125	125	125	124

Notes: F-statistic corresponds to the Bounds cointegration test. Standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

In summary, structural trading ties may contribute to better brokerage performance while not favoring increased market activity as I hypothesized in H6. Moreover, the positive contribution of internalization to the existence of larger market volumes is paradoxical in itself. Although they are counted as market transactions

and are associated with globally larger volumes, structural trading ties actually imply that brokerages are not playing the market. This evidence helps us to better understand the puzzle of a highly embedded market that serves different social purposes and interests, but whose overall development does not take off. Efficiency at the actor level can coexist with poor overall development. Contrary to the argument in the fable of the bees ([Mandeville, 1714](#)), individual gain does not always accumulate into collective benefit. Some of the rich social life of this market produces actor-level benefits that do not translate into overall performance.

5.5 Conclusions

This chapter explored two key economic outcomes of the coexisting types of socially based trading in Ecuador's securities market. While shedding light on the puzzling development of this market, the chapter engages with key discussions on embeddedness and its consequences in financial markets, and takes some relevant steps to move the discussion forward.

A first set of findings shows that there are multiple associations between trading strategies and prices. Traditional research in economic sociology ([Lancaster & Uzzi, 2012](#); [Uzzi & Lancaster, 2004](#)) normally associates the role of trust-generating ties with the lowering of fees in a way that relations with clients can be preserved. This linear way of understanding the relationship is quite widespread. Some works criticize ([Tomaskovic-Devey et al., 2016](#)) the linearity of this approach and show that embedded ties may not always sacrifice profit for protective social cohesion. I provide empirical evidence that contests the separation between profit-driven and trust-laden embeddedness to show that different types of ties can serve different purposes.

As my research does not focus on a single type of embeddedness and shows how different types of social ties coexist and are relevant to economic action in this

market, I expected multiple effects to derive from different types of ties. With regard to the relationship between brokerage fees and the trading ties that exist in the market, I have come across several findings.

The first group of ties, repeating interactions and reciprocal trading, do appear to be mechanisms to preserve ongoing firm-client relations. To do so, brokerages lower their fees. These long-lasting relationships might also be less resource consuming, on similar lines to what is discussed by (Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004). In this sense, I confirm theory that sees structural ties as associated with lower prices charged for services.

A second group of ties exist on the basis of group closure (Parkin, 2019) or opportunity hoarding (Tilly, 1998). In these cases, trading is done, respectively, on a regional basis or to give preferential treatment to actors belonging or closely related to big economic groups. This second group of ties come from broader social structures that influence the market and exist beyond it. Nonetheless, the way they associate with the pricing of brokerage services is similar to that of the first group. In this sense, I find that not only ongoing ties are associated with lower prices but other types of ties, that speak to other traditions of embeddedness, may have similar consequences.

A third trading strategy that is largely present in securities markets, internalized trading, shows that embedded ties can be profitable while allowing actors to foster trust-laden relationships with their clients. Here I follow Tomaskovic-Devey et al. (2016) who claims that business ties can both be driven by profit and trust. I provide new evidence for this fact in the case of a securities market.

The fees that brokerages charge for intermediary services are important sources of income for them. When exploring this, I found that brokerages with larger trading income are more engaged in all types of embedded trading strategies, notably, internalized trading, regional trading and repeating partnerships. In other words, the larger income earners do the most of their trading relying on these socially embedded

strategies.

In addition to deepening the study on the behavior of prices and their relationship to coexisting types of embeddedness, I included a new dependent variable that adds new information about brokerages and the global effects of embeddedness on the performance of the market. This new variable, trading volumes, is quite a simple but relevant measure of trading performance and makes it possible to move the analysis from the firm level to the market level. I found that most types of trading strategies associate with greater trading volumes for brokerages but are detrimental to the overall performance of the market. The one exception is trading internalization, whose contribution to higher market volumes is paradoxical in itself, since intermediaries are not really playing the market and this type of exchange largely implies that liquidity moves within a closed group of clients. It is possible that reliance on several trading strategies favors results for brokerages but comes at the expense of trading with other partners, affecting global market performance. This finding is particularly relevant for understanding the puzzling existence of this market that, in the eyes of economists and policy-makers, is a failure that somehow persists and serves specific purposes. The findings commented in this chapter suggest, beyond the case study, that efficiency at the actor level can coexist with poor global development of markets.

This analysis of the social ground for brokerage fees and trading income by no means exhausts all that can be said about the economic performance of Ecuador's securities market. There are limits inherent to research design and to data availability that can and should turn into opportunities for future development. In the concluding chapter, I share some ideas for possible future steps to deepen this analysis. First, the variable associations that have been found through statistical analysis do not aim at establishing the causal impact of different types of ties on commissions and trading volumes. Such an exercise would require another type of design including, for example, natural experiments. Second, despite the limits caused by the Covid-19 pandemic, the qualitative evidence allowed us to generate questions and hypotheses that were explored through quantitative methods. Based

on the findings discussed here, a next phase of qualitative work could be envisaged to better understand the mechanisms at play. For example, to learn more about the fine-grained mechanisms through which fees are determined, further work could be done through interviews and participant observation. Third, this case study yields a design that could be useful to analyze other markets. For example, the findings on various relevant yet unexplored trading strategies may be used for the study of other markets that correspond to traditional and non-traditional formats. Finally, comparing the findings on the Ecuadorian case with other similar markets could be an extremely rich seam in future research. In order not to go too far, a comparison with the development of the securities market in countries such as Bolivia, which share some of the characteristics of Ecuador's political economy and where the development of the market has both similarities and differences with Ecuador, could be very fruitful. The inclusion of other cases would enable an external comparative dimension.

Chapter 6

Conclusion

Contrary to earlier assessments of economists and policy-makers, the Ecuadorian securities market is not a failure. The fact that it is embedded into a rich social life is far from meaning that it does not work properly. Economic sociology has long taught us that about financial and other types of markets. Although its overall indicators bear witness to its underperformance and it does not follow expected patterns of financial internalization or subordination (Bonizzi et al., 2020), this market facilitates profit-making and is functional to participants that cope with adversity or strengthen their positions of power. This market is indeed a singular case with characteristics that emerge from Ecuador's political economy that coexist with other social features that we see in other cases that have been examined in the social studies of finance. Moreover, the fact that it departs in some respects from classic Western formats, does not mean that this market is foreign to the global financial scene: the way it works entails wealth concentration and the reproduction of inequalities that are characteristic to financialization in contemporary capitalism.

This thesis arrives to these conclusions after looking into the complex social life of this market through the lenses of social ties and their outcomes. In this concluding chapter, I recap the main findings of this work and how they contribute to a more complete understanding of the Ecuadorian securities market. I comment on the

contributions of this research to embeddedness theory and to other discussions that form part of the theoretical and methodological corpus of this thesis. I also remark the limitations encountered and ways of overcoming some of them. Finally, I lay out a few avenues for future developments of this project and similar research on financial markets and their social embeddedness.

6.1 The main findings of the thesis

The core research questions of these thesis were addressed in three empirical chapters: 3, 4 and 5. Chapter 3 studies the existence and relevance of different social devices that take the form of trading and hiring strategies. The other two chapters focus on the study of trading. Chapter 4 looks at how these strategies are used differently and combined by brokerages. Chapter 5 is dedicated to analyzing the outcomes of these strategies at the actor and market level. Here, I briefly highlight the main findings and how they shed light on the puzzles that this market presents.

In Chapter 3, I addressed two research questions on the existence of relevant social ties in the market and whether they influence hiring and trading as the two core types of economic action. I described five types of social ties that stem from the interaction between market players as well as the political economy of Ecuador (that was discussed in Chapter 2). These ties take the form of hiring and trading strategies that I categorized as internalized trading, reciprocity, inter-bank trading, recurrent collaboration, and regionalism. While these strategies do not exhaust all the possibilities for action that exist in the market, they give a fairly complete picture of the main components of its rich social life. The analysis of both qualitative and quantitative evidence showed that these social ties influence, at different degrees, the likelihood and the intensity of hiring and trading. My findings suggest that recurrent collaboration is a key determinant to decision-making as prior works on financial markets have suggested ([Boussard et al., 2019](#); [Mintz & Schwartz, 1987](#); [Petersen & Rajan, 1994](#); [Uzzi, 1999](#)). I also took a step back from classic approaches

that studies dyadic ties that repeat over time, to examine the large presence of *loops* in the form of *internalized trading*. My research shows that this strategy is extremely influential on the chances of trading. Finally, I show that reciprocity, regionalism, and the role of power networks controlled by large banking groups influence the probability of trading in an electronic market where all actors are interconnected and where quotes could be matched anonymously.

Chapter 4 zoomed into trading and addressed two additional questions about the social bases for the variation in the use of different strategies and their combination over time. Although this chapter could have been split into two (and the idea was permanently on the table), I decided to include these two questions in a single chapter because they both speak to what brokerages make out of these strategies. Although the final research questions are more elaborated (based on evidence and theory), the initial considerations were quite simple: who uses these strategies and how do they use them?

My results presented in Chapter 4 show that not all strategies are deployed similarly by brokerages and variation is contingent upon social factors. Notably, bigger and more resourceful actors take more advantage of socially based trading in order to sustain their status quo. My analysis contradicts previous theory claiming that mostly smaller or weaker players rely on their social ties to cope with adverse conditions in financial markets (Baker, 1990). Conversely, I contribute to existing works that suggest it is large economic actors who use their social ties in order to strengthen their privileged positions and, therefore, widen inequalities (Granovetter, 1995, 2010; Khanna & Rivkin, 2000; Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004). In this chapter I also show that regional divisions matter in the deployment of trading strategies. Contrary to my initial hypothesis, brokerages from Quito engage in a greater amount of socially based trading than those located in Guayaquil, whose practices are broadly considered to be farther away from the standards of a modern market.

I dedicate an important space to the discussion of internalized trading, a common strategy in this type of market but largely overlooked by financial scholarship and novel to the sociological eye. Its analysis delivers significant insights into the puzzling nature of this market and how it may function as a concentration mechanism. Although trading happens mostly in the primary market, brokerages that engage more in the secondary market internalize their trades the most. If secondary market transactions only imply liquidity shifts within a restricted group of clients, there is no real development or expansion of the market. Additionally, I found that equity trading in the primary market is done largely through internalization, therefore keeping IPO for closed groups of investors. In sum, internalized trading is a central mechanism that not only helps brokerages to navigate the market but reproduces the restrictive structure of capital in Ecuador (Larrea & Greene, 2018) and the hoarding practices of family-based economic groups (Carrión, 1991; Hanson, 1971; North, 1985, 2018; Pástor Pazmiño, 2016).

The other question addressed in Chapter 4 is mainly focused on the possible combination of strategies over time. In Chapter 3 I explained that several socially based strategies coexist and are available to all brokerages. How do the actors use them in the long term? Do they rely on combinations or hierarchies of these strategies? The exploration of these questions in Chapter 4 shows that this is not an easy task and available data have important limitations. Nevertheless, I felt that the thesis would not be complete without providing at least some preliminary insights into these questions. My interviews pointed to the possibility of combinations and even to a ranked way of displaying strategies before playing the market. To dig a bit more into this, statistical analysis suggested that—in the longer run—brokerages seem to privilege particular pairs of strategies.

Finally, Chapter 5 of this research analyzed the economic outcomes yielded by different types of trading strategies at the brokerage and market levels to understand how its social life may benefit some actors and how this impacts the overall performance of the market. Two things were studied for the purpose: commissions charged by brokerages and trading volumes. Regarding the commissions for

brokerage services my findings suggest that repeating and reciprocal trading are mechanisms that preserve trust in firm-client relations. To do so, brokerages reduce or waive their fees. Something similar was found for both regional trading and trading between actors belonging or closely related to elite economic groups. The study of fees charged on internalized trading yielded the very interesting result that this type of trading can be profitable while still allowing brokerages to foster trust-laden relationships with their clients. This particular finding adds empirical evidence to a critique posed by [Tomaskovic-Devey et al. \(2016\)](#) that claims certain business ties can both be driven by profit and trust. I lastly studied fees on a monthly basis as they are key sources of revenue for brokerages. I found that actors with a larger trading income are more engaged in most types of embedded trading strategies. In other words, larger income earners are the ones who do most of their trading relying on socially based strategies.

In the final part of this chapter, brokerages' trading volumes are compared with the overall effects of trading strategies for the market. My findings suggest that most types of strategies associate with greater trading volumes for brokerages but are detrimental to the overall performance of the market. The reliance on several trading strategies favors results for brokerages but comes at the expense of trading with other partners, thus affecting global market performance. This last finding is fundamental to understanding the puzzling existence of this type of market: social ties can drive profits at the firm level and, at the same time, prevent development overall.

Globally, the thesis concludes that this market allows actors to maximize their performance thanks to—and not despite—its rich social life. Although the global indicators show poor development, the Ecuadorian securities market continues to be functional to several groups of actors. In this sense, this unique market is not so different from what we see in other cases. It facilitates profit-making of certain players, entails wealth concentration, and reproduces inequalities: all three features are characteristic to financialization in contemporary capitalism.

6.2 Contributions to theory and methods

I chose the embeddedness approach to study this modern market that has not ceased to be strongly influenced by the social context in which it exists and that is also shaped by the permanent relations of its actors. Using this approach—where different traditions and tensions coexist—I had to overcome some bottlenecks to fully explain the multiple social phenomena that exist in the Ecuadorian securities market and shape economic action. For this reason, I consider the relationship between this case study and embeddedness theory as a two-way street: while the puzzles of this market can be solved using the embeddedness approach, the complexity of the case obliges us to revisit some pending discussions within it. I hope this work has made a modest contribution to the advancement of embeddedness theory and joins other research ([Baker, 2012](#); [Boussard et al., 2019](#); [Brailly et al., 2016](#); [Lazega et al., 2008](#); [Tubaro, 2021](#)) that shows, while there is room for improvement, the approach is still useful to study economic action. In this part of the conclusion I briefly discuss what I consider to be the main contributions to advancing embeddedness as well as other theory with which this research engaged. Finally, I include some comments on the contribution of this thesis from the methodological point of view and the type of data that was used.

6.2.1 Bridging embeddedness traditions

The core theoretical issue with which this thesis engages is the compartmentalization of traditions within the embeddedness scholarship. This issue was mainly discussed in Chapter 3 where the most proactive ([Beckert, 1996](#); [Zukin & DiMaggio, 1990](#)) and also the pessimistic ([Krippner & Alvarez, 2007](#)) positions on a possible resolution of this discussion were highlighted. Previous works focused on the role of a single explanatory device in economic action. Most research has focused on the role of actors' embeddedness in personal or firm ties and networks (i.e.: [Baker, 1984, 1990](#); [Granovetter, 1985](#); [Uzzi, 1996, 1997, 1999](#)). Other research looks particularly at

other social devices that influence economic decisions such as the role of power, culture, and calculative devices (Beckert, 1996). While there are several reasons for this compartmentalization, ranging from the availability of data to the ontological position of the researchers, an undeniable and shared problem of all these works is that they are not comprehensive enough while we know—since Polanyi (1944)—that embeddedness is a complex thing.

To have a good understanding of economic action in the Ecuadorian securities market it is necessary to analyze several explanatory devices that coexist and interact. This thesis took on the challenge of analyzing them jointly and this provides a path to revisit the pending issue of the compartmentalization of embeddedness. For this endeavor, I used structural embeddedness as the base and enhanced it by including other social devices, such as regionalism and power exercised by elites, as firm-to-firm ties. I identified five types of social phenomena that are embodied in hiring and trading ties in the market. If they had been studied separately, they would refer to three traditions of embeddedness: structural, territorial, and political. I also explained how those socially based strategies unfold differently on the basis of social factors and yield different outcomes. Two contributions derive from this exercise: on the one hand, I show that in addition to repetitive or reciprocal interactions, the structural approach can accommodate other types of social facts that have been understood differently and have been analyzed through methods other than network analysis. On the other hand, I show that interconnections and bridging is possible between different embeddedness approaches. Those interconnections are necessary to study this market and I hope this sheds light for similar research in other cases.

6.2.2 The role of social ties in markets

While challenging compartmentalization is the main theoretical enterprise of this thesis, it also addresses other issues within embeddedness theory. The role of social ties in generating profits or strengthening trust relationships is one. Embeddedness scholars understand market ties, their role, and how they relate to prices from

two contrasting points of view. One perspective understands ties and other network structures as a means of channeling and enhancing trust. This is the most widespread reading of the role of embeddedness in its different formats. In this view, profits generated through prices are sacrificed as a way to protect and enhance relationships (Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004). The other perspective, closer to the work on cartels and oligopolies found within industrial economics (Fog, 1956; Perloff & Carlton, 1999), explains that ties and networks serve to close opportunities and impose prices (Yakubovich et al., 2005). In this case, embeddedness is not far from Social Closure Theory (Parkin, 2019) that explains how economic opportunities are restricted on material grounds or based on shared social attributes.

A first thing I criticized, based on my findings, is the linear association that previous literature makes between social ties, their goals, and prices. In Chapter 5 I showed that different types of ties, and the strategies linked to them, have distinct objectives and can be used to increase profits or to build stronger relationships through the use of discounts. Perhaps the most interesting contribution comes from the study of internalized trades that can serve both purposes. At this point I contribute with empirical evidence from this securities market to a critique raised by Tomaskovic-Devey et al. (2016), who claimed that business ties can be driven by both profit and trust. Brokerages take advantage of the double commission to provide rebates to clients with whom they want to strengthen relationships but not fully sacrifice the revenue generated by the transaction.

6.2.3 The outcomes of embeddedness

A key subject for this thesis is the different outcomes that socially embedded economic action produces. In this aspect, a first simple and straightforward contribution is the introduction of new variables. Despite the fact that previous literature in the social studies of finance has looked into prices and how they are associated

to different types of embeddedness, we know little about the prices of intermediary activities in securities markets. The pricing of assets (Baker, 1984), the cost of credit (Uzzi, 1999; Uzzi & Gillespie, 1999) and the fees for complementary or more elaborated services such as legal advice (Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004) and underwriting (Podolny, 1994) have been analyzed in previous research. However, the fees charged for the most basic intermediary work has remained out of its scope. In this thesis I studied the variation in prices that brokerages charge for intermediary work which, in this market, is one of the main sources of income for these actors and allows us to analyze the profits that different types of socially based strategies generate.

The other new variable I included in this thesis is trading volumes, which is a key performance indicator both for brokerages and for the market as a whole. Other than being largely overlooked in sociological studies of this type of market, for this project, it allowed me to compare the results at the actor level with the performance of the market. Previous literature has focused on studying multiple effects of embeddedness for actors (firms or individuals) but we still do not know much about the global effects of embeddedness on market performance. My findings suggest that socially embedded trading strategies can produce favorable results for the actors, but do not necessarily translate into overall market performance.

6.2.4 Discussing the political economy of Ecuador

This sociological research on the functioning of a financial market raised questions that have been traditionally discussed from a political economy perspective. For example, it is not possible to understand the relevance of the regional issue or the strategies of elite *kinecon* groups in the Ecuadorian market without looking at the political economy of the country. In that sense, this thesis discussed key elements of Ecuador's political economy to explain the relevance of some of its core questions and variables. At the time, this bears witness to the necessary cooperation between the scholarly traditions of political economy and economic sociology (Beckert &

[Streeck, 2008](#)). While doing this, I found several subjects that were overlooked by previous scholarship on the political economy of Ecuador or that I believe merit further discussion.

Within the comparative studies of the political economy of Latin American countries ([Karl, 1997](#); [Schneider, 2009, 2013](#)), I find that categorizing Ecuador as a petro-state poses some limits. It is indisputable that Ecuador is a rentier economy whose main resource and export is crude oil that is largely managed by the state. However, the historical presence of economic groups linked to agro-export and commercial activities should not be minimized. A careful reading of the balance of payments attests to this. Most importantly for this research, the securities market reflects this reality, where the participation of state actors and their liquidity are combined with the presence and strategies displayed by elite economic groups. For this reason, I find that a more appropriate categorization for the political economy of Ecuador is the notion of *dual rentierism* that is introduced by [Purcell \(2016\)](#) who considers both its dependence on oil trade and the role of traditional agro-exports controlled by economic elites. Furthermore, such a notion should account for the regional organization of the elites ([Chiasson-LeBel, 2016](#)).

Another key limitation of the works on the political economy of Ecuador is the fact that dollarization is either missing or has not been fully addressed. Even the most comprehensive analyses of Ecuador's contemporary political economy by [Purcell \(2016\)](#) and [Chiasson-LeBel \(2016\)](#) do not address the issue sufficiently. [Purcell](#) mentions that the role of large economic groups has strengthened after dollarization as those actors control part of the dollar inflows from exports. However, this conclusion is derived from expectations and not from real contributions of net foreign exchange. The fact that exporters leave their revenues offshore has been documented and criticized for the negative impact it has on a fully dollarized economy ([Arauz, 2009](#); [Carvajal, 2015](#); [Chiriboga-Tejada, 2017](#)). The existing evidence that money inflows from export activities are much lower (or sometimes zero) with respect to the amounts sold should be taken into account by political economists and sociologists. The power of the agro-exporting elites—in the context of dollarization—comes less

from real dollar flows than from the construction and management of expectations.

6.2.5 Contributions of methods and data

This research was conducted using a combination of qualitative and quantitative methods. The possibility of obtaining robust conclusions relies strongly on this combination. Exploratory interviews and my own experience with the market fed initial questions and hypotheses about this market. These questions were further refined and explored using quantitative methods from social network analysis and various econometric techniques previously used in research on the relationship between social ties and economic action. Two things are novel about this exercise: the type of quantitative data that was used and the inclusion of loops in models traditionally based on the study of dyadic ties or more complex network structures.

Fine-grained transaction records were fundamental to examine the ensemble of variables needed for the research. The type of behavioral data that this research collected was inspired by the work carried out by [Baker \(1984\)](#) who also used exchange records for his research on the social structure of a securities exchange in the US. My data collection involved several months of work with staff from the market regulator to obtain information that is kept by the exchanges but is not publicly available. Complementary information about the brokerages and issuers had to be gathered from other sources, such as specialized publications and company websites. The final data set of this thesis provides unique information—per transaction—on the parties involved (issuers and brokers), the economic sectors to which they belong, their location, the amounts traded, the type of security, the type of market (primary or secondary), the date of the trade and the commissions charged. The data was collected for a fairly long period of time (all transactions for a period of 10.5 years from January 2007 to June 2017), allowing me to explore temporal variations and reach more robust results. A recurring question is whether counterfactual cases from other markets can be found to support some of the findings. Generating this type of data is certainly a challenge for the next phases of this research. Nevertheless,

the type of data available at this point allowed me to explore an important number of variables and to have internal counterfactuals for actor and market behavior.

The other contribution I would like to highlight is the inclusion of loops in the design. Similar work on the role of social ties focuses on dyadic and more complex network structures. In my research, I included the notion of loops—a figure that has been largely overlooked in social network analysis—to study internalized trading—an important but little explored topic in financial economics and unknown to the social studies of finance. In social network analysis, the inclusion of loops has been discussed in the context of elaborated proposals such as those that study weighted complex networks (Wasserman & Faust, 1994) or multigraph models (Shafee, 2015). In my case, I emphasize this need, but I argue that a more simple design that looks at firm-to-firm ties and loops has an important explanatory capacity for studies of this type of market.

6.3 Limits of the current design and opportunities for future research

While I consider the the research design for this thesis served its purpose, some limits were encountered in the course of the investigation. In this final part of the conclusion I refer to the most relevant ones and discuss possibilities for overcoming some of them for future stages of this project or similar research. Additionally, the research provided preliminary evidence of some topics that were not been fully developed at this stage but open new avenues for future developments.

6.3.1 Data availability

My work explores a new avenue for the advancement for structural embeddedness by bridging it with other traditions. To this end, I have focused on studying diverse social facts as firm-to-firm ties. A first limit my research encountered was the lack of data on client-brokerage ties. Although I initially requested this information, financial secrecy norms prevented access to it. I was able to overcome this problem for the study of issuer-brokerage relations considering that primary market trading is largely performed by the brokerage in charge of issuing. Syndicated issuances—where multiple brokerages are engaged—are extremely rare compared to other markets. With these considerations, I was able to proxy issuing dyads based on the transactional data available. However, hiring ties between brokerages and their clients for the secondary market had to be excluded from the analysis, as did the possibility of revealing the connections that exist between clients (for example, within the same economic group). This is particularly important when we think of internalized trading where a brokerage certainly keeps both ends of the transaction for itself but, at the end, it could be doing it for a closed group of clients.

Although in the secondary market we should expect to find countless individual clients or firms with limited participation, there are important and recurring relationships such as those between banks and their brokerage houses. Similarly, the role of investors belonging to large economic groups could be studied. The interviews provided interesting evidence on these client-brokerage relationships, which unfortunately could not be explored in greater depth using statistical methods. One way to overcome this problem, for the case of Ecuador, would be to access anonymized data provided by the control entity as is done for some studies using tax information. The Ecuadorian Internal Revenue Service provides this type of data access for researchers working in situ which could be extended, depending on the will of the regulator and within the margin provided by regulation, to the analysis of corporate and securities market information.

The lack of data on clients also limited the possibility of distinguishing between

different economic groups participating in the market. The research shows that the polarization between elites is reflected in the market in two ways: in some cases they close off (Parkin, 2019) or hoard opportunities (Tilly, 1998) for their group, and in other cases they cooperate out of a logic of generalized cohesion (Van Gunten, 2015). This dual way of operating is in itself a puzzle worthy of future investigation. In this thesis, I have focused on exploring the second, inter-group cooperation, by looking at trading among elite brokerages. In order to get a more complete picture of closure displayed by rival economic groups, more detailed information on the secondary market and clients is needed.

The interviews merit a final comment regarding the availability of the data, its limits, and future stages. While the quantitative analysis of transactional and aggregate data is central to this thesis, the evidence gathered through interviews played a fundamental role in the development of questions and hypotheses, as well as supporting the interpretation of the quantitative results. This is true even though the second round of interviews was limited by the Covid-19 pandemic and not all of them could be conducted. The current questions of this thesis, new questions, and several preliminary findings can be further explored through the use of qualitative methods. For example, the quantitative analysis presented in Chapter 4 provides preliminary evidence on the combination of pairs of trading strategies over time. Through further in-depth interviews and participant observation, it would be possible to confirm this and explore how and why traders use these pairs of strategies or deploy them in a particular order before playing the market.

6.3.2 Alternative ways to study this market

Without departing from the advancement possibilities presented by the *granovetterian* tradition of embeddedness, there are other ways to analyze the complex of social relations in markets. I have pointed out fruitful efforts to address the complexity of embedded economic action in several ways. I notably referred to the scholarship that moves beyond the separation between interpersonal social ties and

ties among firms and proposes a multi-level perspective ([Brailly et al., 2016](#); [Lazega et al., 2008](#); [Tubaro, 2021](#)). While it is true that in some cases personal decisions are equated with corporate action, the qualitative part of my research shows that the role of individuals and their networks is an important part of this story. For example, there are friendly relationships that facilitate economic exchanges between brokerages of all types. Similarly, the joint strategies of bank-brokerages seem to be preceded by informal relationships between their top managers and could also come from formal interlocks ([Mizruchi, 1996](#)). My current transactional data does not allow us to explore this dimension but a broader design based on interviews, participant observation, corporate information, and sociometric methods could feed new questions and a multilevel design.

Despite the comprehensive approach of this research, it was not able to address several social issues or devices—at least directly. Moreover, although this thesis has shown the explanatory power of the notion social ties, not everything can be studied relying on this figure or the techniques used in this project. For example, we could ask how rules, regulations, and relevant institutions have evolved and how they shape or constrain the relationships between actors. I do talk about norms and institutions throughout the thesis, but this has not been the focus.

Another issue that has not been addressed in this research is the role of technology and how it explains the social life of the Ecuadorian securities market. I argue that despite the modernization of the market and the use of technology, conventional social relations still matter. This does not mean, however, that the role of technological devices is completely unrelated to my questions. I can think of at least one subject where the analysis could emphasize on the materiality of trading in similar lines to previous works on the automation of finance ([MacKenzie, 2018](#); [MacKenzie, Beunza, Millo, & Pardo-Guerra, 2012](#); [Pardo-Guerra, 2019](#)). I refer to the history of the transaction systems used by the two exchanges, and the existing struggles to control them, which might help us further explore the regional and elite divisions that exist in Ecuador's securities market.

6.3.3 The role of the state

In this project, the state has not been absent from the analysis. The thesis permanently points out to the existence of state participants and the importance of government liquidity in the market. I take two things into account regarding the role of the state. First, economic activity remains within the limits set by economic regulation, or at least always accounts for it (e.g., when economic actors do not comply with the rules). Second, even if we focus on the way private actors relate to each other, government liquidity and public market actors are a fundamental part of the story. However, the central part of the thesis—the study of the social bases of hiring and trading, their deployment, and their outcomes—focused on the relationships between private actors.

Another way to conduct or extend this research could be to focus on the role of the state and how its regulations, institutions, and actors influence the market. State institutions and (de)regulation reflect several characteristics of Ecuador's political economy, and their intervention has important implications for market dynamics. Some evidence in this regard is discussed in Chapter 2 and can be a starting point to elaborate new questions about the functioning of the market where the state and its institutions can play a more prominent role.

6.3.4 Beyond Ecuador

This research was designed to explore the features of Ecuador's securities market. Nonetheless, several of those features are found in other national securities markets and, thus, several components of this research design could be useful to study them. A first possibility of extending this design to "new data" does not imply moving too far away from Ecuador: several of the research questions of this project can apply to the markets in other Latin American countries with similar political economies that translate into abundant cultural, social, and political market embeddedness ([González & Madariaga, 2018](#)). Moreover, most of these markets have been judged as

failures. Thus, by looking at Ecuador, this research opens an avenue to questioning what the specialized economic literature has been quick to judge as late or failed take-off of capital markets in the region (De la Torre & Schmukler, 2006).

In Chapter 2, I referred to several countries that share features with Ecuador. One case that would be extremely interesting to study is the Bolivian securities market. This country has the most similar political economy to Ecuador: it is a rentier economy, heavily dependent on the production and export of minerals, with a marked regional division and a strong presence of politico-economic elites constituted around kinship. However—within the performance standards of Latin American markets—it is largely a more dynamic market. Why the difference? Other key questions could also be applied to this or other national markets in the region: how do rivalries between elites operate in the market? Do they deploy mechanisms of closure, generalized cohesion, or combine them as in the Ecuadorian case? In a next phase of this project I would like to extend the research to other countries in the region and the Bolivian case would be a priority for the comparative dimension.

Markets with rich social lives are not exclusive to Latin America or the broader set of developing countries. Modern markets in the Western world that do show accelerated modernization and automation (Knorr Cetina & Bruegger, 2002; Pardo-Guerra, 2019) still accommodate features that account for the presence of personal ties and class solidarities that Foureault et al. (2021) refer to as the persistence of neo-patrimonial elements in modern finance. Mechanisms for building trust and coping with uncertainty as well as strategies of elite actors to preserve their status quo have not completely disappeared in those markets. In that sense, the research design of this thesis could yield lessons and raise new questions about other markets, even for those that have already been extensively explored by the social studies of finance but whose complexity has not been fully unraveled. Beyond studying the case of Ecuador, I hope this thesis constitutes a modest contribution to that endeavor.

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Appendix A

List of interviews

ID	Gender	Occupation	Entity	Location	Date 1	Date 2
BrokerA	Male	Former trader	Bank-brokerage	Quito	01/08/2014	10/02/2020
Broker B	Female	Former trader	Independent brokerage	Quito	03/03/2020	
Broker C	Female	Trader	Independent brokerage	Guayaquil	01/02/2014	25/03/2020
Broker D	Male	Trader	Bank-brokerage	Quito	20/02/2020	
Broker E	Male	Trader	Bank-brokerage	Guayaquil	24/03/2020	
Broker F	Male	Trader	Independent brokerage	Guayaquil	26/03/2020	
Broker G	Male	Former trader	Government	Quito	02/04/2020	
Broker H	Male	Former trader	Independent brokerage	Quito	27/12/2013	04/03/2020
Broker I	Male	Trader	Bank-brokerage	Quito	18/02/2020	
Broker J	Female	Trader	Independent brokerage	Quito	20/12/2013	21/02/2020
Broker K	Male	Trader	Independent brokerage	Quito	17/02/2020	
Broker L	Male	Trader	Independent brokerage	Quito	12/12/2013	
Issuer A	Male	CEO	Pharmaceutical firm	Ambato	09/03/2020	
Issuer B	Male	CEO	Agrochemical firm	Quito	11/03/2020	
Issuer C	Male	CFO	Food processing firm	Guayaquil	31/03/2020	
Exchange A	Female	Executive	Securities Exchange	Quito	26/12/2013	
Exchange B	Male	Former executive	Securities Exchange	Guayaquil	01/02/2014	
Exchange C	Male	Executive	Securities Exchange	Guayaquil	12/03/2020	

Appendix B

Linear estimates for regional trading (transactional level)

Table B.1: Linear estimates for regional trading (transactional level)

	<i>Models</i>			
	(1)	(2)	(3)	(4)
1. Exchange = BVQ	0.585*** (0.017)	-1.150*** (0.039)	0.487*** (0.016)	-1.381*** (0.039)
2. Seller domicile = Quito	-0.054** (0.017)	-1.138*** (0.028)		
3. Buyer domicile = Quito			0.321*** (0.017)	-0.919*** (0.028)
4. Exchange x Domicile (seller)		2.728*** (0.047)		
5. Exchange x domicile (buyer)				2.998*** (0.047)
Constant	-1.380*** (0.091)	-1.547*** (0.092)	-2.628*** (0.079)	-2.531*** (0.080)
Observations	153,019	153,019	153,053	153,053
Log Likelihood	-73,394.470	-71,186.250	-73,327.450	-70,567.200

Notes: All regressions are linear models with the following controls: effect of time (monthly), size of seller and buyer (volumes sold or bought in the past month), brokerages linkage (or not) to a banking group, value of the trade, type of security traded (stocks or fixed rent), economic sector of the security traded. Standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

Appendix C

Linear estimates for the combination
of trading strategies (option 2,
between-brokerage comparison)

Table C.1: Linear estimates for the association of trading strategies (option 2, between-brokerage)

Dependent variables: proportion of trading closed through each strategy
Independent variables: proportion of trading closed through each strategy

	<i>Dependent variables (Trading strategies)</i>			
	Internalized (1)	Repetition (2)	Reciprocity (3)	Regional (4)
1. Internalized		-0.264* (0.105)	-0.016 (0.078)	-0.109 (0.109)
2. Repetition	-0.552* (0.220)		0.261* (0.104)	0.213 (0.156)
3. Reciprocity	-0.069 (0.347)	0.558* (0.222)		-0.177 (0.232)
4. Regional	-0.240 (0.241)	0.225 (0.165)	-0.088 (0.115)	
Constant	-1.388** (0.433)	-1.109*** (0.285)	0.069 (0.231)	1.054*** (0.280)
Observations	51	51	51	51
R ²	0.764	0.729	0.510	0.672
Adjusted R ²	0.681	0.634	0.338	0.557

Notes: All regressions are linear models that include controls for the size of brokerages, their domicile, their link (or not) to a financial group and the proportion of trade devoted to different types of trading: secondary market, stocks and securities belonging to key economic sectors (agriculture, manufacturing, state, wholesale and securities from the banking sector). Dependent and explanatory variables account for the average monthly proportion of trading volumes that each brokerage devoted to different trading strategies. Standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01,***p<0.001

Appendix D

Linear estimates for the combination
of trading strategies (option 3,
between-brokerage comparison)

Table D.1: Linear estimates for the association of trading strategies (option 3, between-brokerage)

Dependent variables: trading volumes closed through each strategy
Independent variables: trading volumes closed through each strategy

	<i>Dependent variables (Trading strategies)</i>			
	Internalized (1)	Repetition (2)	Reciprocity (3)	Regional (4)
1. Internalized		-0.088 (0.072)	0.230* (0.105)	-0.026 (0.077)
2. Repetition	-0.447 (0.363)		0.729** (0.220)	0.481** (0.154)
3. Reciprocity	0.502* (0.228)	0.314** (0.095)		0.086 (0.113)
4. Regional	-0.119 (0.350)	0.432** (0.139)	0.180 (0.236)	
Constant	-14.738*** (4.029)	-4.042* (1.979)	0.470 (3.181)	7.550*** (1.820)
Observations	51	51	51	51
R ²	0.852	0.970	0.937	0.953
Adjusted R ²	0.800	0.960	0.915	0.937

Notes: All regressions are linear models that include controls for the size of brokerages, their domicile, their link (or not) to a financial group and the trading volumes for different types of trading: secondary market, stocks and securities belonging to key economic sectors (agriculture, manufacturing, state, wholesale and securities from the banking sector). Dependent and explanatory variables account for the average trading volumes of brokerages on each trading strategy. Standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

Appendix E

Linear estimates for the combination
of trading strategies (option 2,
within-brokerage variation)

Table E.1: Linear estimates for the association of trading strategies (option 2, within-brokerage)

Dependent variables: proportion of trading closed through each strategy
Independent variables: proportion of trading closed through each strategy

	<i>Dependent variables (Trading strategies)</i>			
	Internalized (1)	Repetition (2)	Reciprocity (3)	Regional (4)
1. Internalized		-0.419*** (0.036)	-0.101*** (0.020)	-0.407*** (0.031)
2. Repetition	-0.306*** (0.030)		0.032* (0.016)	-0.021 (0.025)
3. Reciprocity	-0.155*** (0.027)	0.068* (0.033)		0.116*** (0.032)
4. Regional	-0.427*** (0.031)	-0.030 (0.036)	0.079*** (0.019)	
Time fixed effects	YES	YES	YES	YES
Brokerage fixed effects	YES	YES	YES	YES
Observations	4,131	4,131	4,131	4,131
R ²	0.603	0.456	0.240	0.521
Adjusted R ²	0.584	0.431	0.205	0.499

Notes: All regressions are estimated using linear models with time and brokerage fixed effects and include controls for the size of brokerages, their domicile, their link (or not) to a financial group and the proportion of trade devoted to different types of trading: secondary market, stocks and key securities belonging to key economic sectors (agriculture, manufacturing, state, wholesale and securities from the banking sector). Dependent and explanatory variables are calculated as the proportion of trading volumes that brokerages destine to each trading strategy. Cluster-robust standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

Appendix F

Linear estimates for the combination
of trading strategies (option 3,
within-brokerage variation)

Table F.1: Linear estimates for the association of trading strategies (option 3, within-brokerage variation)

Dependent variables: trading volumes closed through each strategy
Independent variables: trading volumes closed through each strategy

	<i>Dependent variables (Trading strategies)</i>			
	Internalized (1)	Repetition (2)	Reciprocity (3)	Regional (4)
1. Internalized		-0.041 (0.030)	-0.087** (0.031)	-0.065*** (0.018)
2. Repetition	-0.027 (0.020)		0.121*** (0.024)	0.157*** (0.027)
3. Reciprocity	-0.033** (0.012)	0.070*** (0.013)		0.043*** (0.012)
4. Regional	-0.069** (0.020)	0.254*** (0.047)	0.120** (0.039)	
Time fixed effects	YES	YES	YES	YES
Brokerage fixed effects	YES	YES	YES	YES
Observations	4,131	4,131	4,131	4,131
R ²	0.721	0.620	0.580	0.485
Adjusted R ²	0.707	0.602	0.560	0.460

Notes: All regressions are estimated using linear models with time and brokerage fixed effects and include controls for the size of brokerages, their domicile, their link (or not) to a financial group and the trading volumes devoted by brokerages to different types of trading: secondary market, stocks and key securities belonging to key economic sectors (agriculture, manufacturing, state, wholesale and securities from the banking sector). Dependent and explanatory variables are the trading volumes that brokerages destine to each trading strategy. Cluster-robust standard errors in parentheses. ⁺p<0.1; *p<0.05; **p<0.01, ***p<0.001

Appendix G

Interview example

Transcription of interview with Broker A

The interviewee was a trader at a large brokerage house in Quito. This entity once belonged to a large bank. The names of people, public institutions, and firms that were mentioned in the conversation have been anonymized. The only exceptions are the mentions to the Exchanges from Quito and Guayaquil. The interview was conducted in Spanish, transcribed in the same language and translated into English by the author.

Date: 10/02/2020

[The interview started with some personal questions that have not been transcribed]

Which activities was Brokerage House A doing at the time you worked there? I joined Brokerage House A at the invitation of [anonymized, CEO of Brokerage House A] when the brokerage was just starting up. Brokerage House A started out with the intention of being the brokerage that would provide services to the [Bank A] financial group. That is, when a client of the bank or a client of one of its agencies wanted to get rid of a deposit certificate, when he wanted to sell a stock or needed brokerage service. At the beginning, we did not really look for clients. Our clients were those of the bank. Who were our main clients? The investment funds we managed ourselves, the bank itself when it needed services for buying and selling securities for its treasury and the clients referred by the bank's agencies. Little by little, the same clients came to the brokerage after going to one of the bank's agencies because they wanted to diversify their investments beyond what the bank already offered them.

Within these three types of clients, which would you say were the most important? Most of them were individuals referred by the bank's agencies.

But Brokerage House A has firms that are listed as its main clients... Yes, firms were very relevant but not large in number when compared to individuals.

For example, we worked with firms that needed credit notes to pay taxes. These were recurring customers every month. Firm A was an important client that had a very close affinity, at that time, with the Bank A group. Firm A had to sell corporate bonds through the securities exchange and therefore became a client of our brokerage. There were also some insurance companies such as Insurance Firm A and Insurance Firm B. The rest of the initial customers were individuals who had a lot of money and who did not want to simply leave that money at Bank A.

How frequent was the relationship with these clients? Did Brokerage House A work with them once or did they come back to work with them several times?

These clients became recurrent customers. Very few clients made a single transaction and never returned. They were customers who had large enough sums of money to justify a portfolio and who required repeated stock reinvestment transactions through the securities market.

For those clients that wanted to invest their money, in what kind of securities was it invested?

Initially, in securities from financial institutions and some government securities.

And were these transactions mostly in the primary or secondary market? For clients with portfolios they were mostly primary market operations. For example, these clients would invest in Bank A deposit certificates with a 90-day term, but they also wanted to invest in deposit certificates from Bank B, or Bank C, or a Credit Card Company A's deposit certificate. So, we would buy these for them and renew them every 90 days. In the secondary market, we are talking about sporadic clients referred by the agency. For example, when a client wanted to get rid of a security they had in their power, there we are talking about secondary market operations. For those cases, we had a market because our own mutual funds were buying those same securities. So, every time an agency referred a client to us who wanted to get rid of a security, be it from Bank A or another bank, they requested

our service.

If I understand you correctly, these individual investors were very clear about the securities they wanted to invest in. How much do the clients decide about where their money is invested and to which extent do you advise them?

They do indicate what they want. But the brokerage guides the client towards certain securities according to their risk profile and reality.

So, did you guide them through the entire range of securities available in the market or what did you have available for your clients?

The advantage we had as the bank's brokerage was that we had good risk analysis of the market alternatives. Also, in the beginning it's not that there were so many alternatives. What did exist were financial securities from the few banks that passed the rating criteria of the banks and those in which the bank itself invested. For example, we could not recommend securities from Bank D or securities from Bank E. In general, we could not recommend securities from entities that Bank A itself did not work with because they were considered too risky. There were very few stocks in the market at the beginning and interest rates were very high, so the evolution of stocks was bad.

In my analysis, Brokerage House A shows a high level of internalized trading quite similar to that of Brokerage House B, another large bank's brokerage house. Within the group of large private banks, they are only surpassed by Brokerage House C with almost twice as many internalized trades as Brokerage House A or Brokerage House B. How can we explain that this type of transaction is privileged in the market (over 60 percent of the market operations are internalized) and in the particular case of Brokerage House A?

This is very interesting. I would say that, to understand this, we should divide the cases into three: first, you have the case of securities that are issued by firms from

the real sector of the economy that seek financing. Second you have the secondary market of stocks. Finally, you have what I would call the securities market for financial groups. With regard to the latter, we have to understand that banks had their securities houses but after the promulgation of the anti-trust law they did not formally own them. Nevertheless, directly or indirectly, the financial groups have always managed and still manage their own brokerages.

Let's go one by one. In the case of securities that are issued by firms from the real sector of the economy there are few issuances per year, but those exist. Companies like Firm C, D, or E issue securities to finance their business. In that case, the brokerage charges an issuing fee and a selling commission. But in the ideal world, being able to also charge the buying commission is the best for the brokerage. So, the brokerage seeks to sell directly to mutual funds, insurance companies, banks, or individual customers willing to buy those few long-term securities.

Of the issuances, usually an important percentage is already pre-negotiated. In other words, once you are in the market, you know that a certain investment fund, insurance company, or bank will buy a good part of your securities. Those operations are internalized: you, as a brokerage, make the purchase and sale on behalf of the issuer and the funds, banks, or other buyers. Normally, half of what you issued will be internalized so you also get the buying commission as well. What is left you sell it to the market. That justifies why there are so many internalized trades in what I call the real sector of the economy in the primary market. Also, in this case there is little secondary market. Of the securities that are bought, most are kept to maturity by their buyers and others enter the dynamic of financial groups and investment funds, which is the other set of transactions that explain why there are so many internalizations. Let me speak about that now.

An investment fund administrator manages several funds. Likewise, a bank manages several investment positions. When they have to find secondary market for a security they will usually try to move it from one fund to another fund they manage or, in the case of banks, from one portfolio to another portfolio. In this case, they

will then try to internalize it on the stock exchange using their brokerage so that they themselves buy and sell the security.

So, this is not just the brokerage trying to have another commission?

When it comes to a fund manager, for example, it manages a liquid fund and a very-liquid fund. Let's say that the liquid fund has a portfolio worth USD 100 million and the very-liquid fund has a portfolio of USD 50 million. Suppose there is a scheduled major withdrawal from the liquid fund. Then you need to sell a security to fund the withdrawal of a major client who is leaving. But I, as the manager, have good securities that I want to keep. Then my priority is to sell the security to another mutual fund that I manage, of course going through the securities exchange. I cannot do this directly. So, I'm going to make sure that the good securities I bought in the primary market are bought by another of my funds through an internalization by the financial group's brokerage. It's the same with banks. If the bank needs to get rid of a good security, it will try to get its offshore subsidiary to buy it, or the insurance company linked to the financial group to buy it, or a client's managed portfolio to buy it. When two entities of the same financial group are involved, the group's brokerage is used and the transaction is internalized.

In the case of the bank, operations must also be carried out by the securities exchange to meet the requirements of institutional clients. For example, when the bank makes a securities market issuance in the primary market it has to sell to certain funds through the exchange. If those are its own funds or companies related to the financial group, it will carry out primary market internalization through its brokerage. This also explains why there are so many primary market internalized trades in the case of financial sector securities.

Finally, there is what I would call the secondary market for stocks. Our stock market is small. There are mostly shares of Firm A and a few others. So, if I have a client who wants to sell shares in one of these, I will surely have another client of my own who will want to buy them. So, I'm going to prioritize an internalization and will try to keep other brokers away from it. In our market, when there are no buying

and selling positions you can take your position and close it automatically. When it comes to an internalization, regulation orders it to stay open for a few more seconds to see if someone wants to cross it. But it's only a few seconds where the rest of the market should be watching the trade to be able to cross the transaction. It is very difficult for them to do so, so most of the time the internalization is accomplished. Even if you have a high-demand security, such as the stocks of Firm A, you will look for another client of your own to internalize the deal instead of selling it on the open market.

The Brokerage House C case you mention, in addition to what I have just explained, is also due to a very atypical event. At one time, they decided to sell the shares of Bank F at an increasingly inflated price. They started at one dollar, then 1.5, then 3 until they reached 4 dollars per share when the shares of the rest of the financial system were trading at one dollar. The overpricing was brutal. These were internalized trades where Brokerage House C sold stock of their bank to their own clients. Once the stock reached 4 dollars, they stopped manipulating the price and it plummeted. There were many clients who complained and went directly to Mr. [anonymized, the owner of the bank] or to the agencies of the Bank F to complain because their investment was no longer worth anything. In the cases of very selected clients, they were forced to buy back at a price of 3 dollars. But it was very difficult to do it because everyone was trying to get rid of that crap stock and the market was filled with sale orders. So, Brokerage House C had to wait for certain moments when the market was dry or when there were little sale orders sales that would match their buy orders. If someone got in their way, they could sell their shares at 2.5 or 3 dollars because Brokerage House C was the only one buying those shares that were really not worth anything. But these purchases at an unrealistic price were basically to satisfy certain customers who were very dear to them. I think this also explains why there are so many internalizations in this whole story of Brokerage House C.

In total, what that Corporation [the financial group of Bank F] obtained more than 30 million dollars thanks to this scam, even after the repurchases that it had to do for some privileged clients. They miserably cheated their clients by selling

the shares at an absurd overprice. In any decent market, they would be in jail. Here an investigation was requested from the Superintendence of Companies but they did nothing at the time. That must justify why Brokerage House C has so many internalized trades in the secondary market above what Brokerage House A or Brokerage House B have.

When did this happen? They sold the bank's stock at inflated price from 2003 to 2007 or 2008. But until 2011 and 2012, they were still buying back on behalf of those several shareholders at 3 dollars because otherwise that could bring them problems. I can even give you a file where I have a graph with the behavior of these transactions, operation by operation. The chart is horrifying. There you can see how when the market was supposed to drop the price, they held a fictitious price of 3 dollars through their internalized trades. That's a crime that was not sanctioned and it's probably already prescribed. This must explain the unusual volume of internalized trading you must have seen for this brokerage house.

In my analysis, I find that the fees charged for internalized trading have a significant impact on the securities firms' monthly commission volumes compared to the contribution of non-internalized trading. Also, when you simply compare internalized trades to non-internalized trades the former have a stronger impact in the commission. So, are they a good deal for brokerage firms?

The truth is that internalization is a good business for the brokerage but not for the client. In principle, the client believes that adequate information conditions in the market will guarantee an adequate price. The client seeks that: through correct information, a correct price is formed. In the internalizations the opposite happens. You are prioritizing the interests of the brokerage and not those of the client. It may be in the client's interest to go to the market and get paid more, but not for the brokerage.

But in some cases, playing the market and getting a better price and

a higher commission on the selling side could be a better deal? Why not play the market then?

Usually you already arrange a commission with your client. That's the practice in the Ecuadorian market. In the order, you already say what the commission is going to be. You don't have any added value from going to the stock exchange to get a better price. That's why you prefer to close with another client of yours and with a commission that satisfies both parties. There is no interest, no appetite to go to play the market. The only way to make more money would be to buy the security for yourself and then try to profit on a spread. But then you lose the chance to charge a second commission.

You tell me that the commission is arranged with the client. How does this work? Is there a legal limit below which different percentages of commissions are agreed?

There is no limit. This is done according to the market. If it's a small client with little information you're going to try to charge him a lot. If it's a big client who is already familiar and recurring you will charge a standard commission which is quite low.

Tell me a little more about the treatment for these recurring customers. Are they given any special treatment? Are they given any discounts?

You can't charge them a high commission because you run the risk of having them go to another brokerage. Since there are not that many players in the market, they all already know each other and there are no exclusive clients of the brokerages.

But I see that there are clients who have much closer and more intense relationships with certain brokerage firms. . .

You do have greater affinity and greater trust with certain clients. With some clients, it is a question of the way you treat them and the affinity you build with

them. For example, the brokerage firms that manage most of the investors in Firm A are Broker H from Brokerage House D and Broker I from Brokerage House E. They give those investors a very personalized treatment. Firm A's historical clients are older women, people related to the church, priests, nuns, and foundations that simply trust them as their brokers.

That in the case of individual investors, but what about the big institutional investors?

There I'm talking about individual stock investors. With the big ones, it's purely an economic issue. If you charge too much, they'll go with the other one.

In the data I've analyzed, I see some of the recurring clients that hire Brokerage House A for issuing and selling in the primary market. Bank A appears obviously, but also Firm B, Firm C, and Firm A. All companies domiciled in Quito, including the Firm B with its particularity of being a mixed corporation devoted to securitization of mortgages. These are the clients with whom Brokerage House A has established a very close relationship over the years. How did this happen? Why not other clients?

Let's go one by one. As you mentioned, with Bank A there is not much to say. Brokerage House A is the bank's brokerage.

Firm B is basically owned by the financial groups in the country. 45 percent belongs to [a regional multilateral bank], 8 percent to [a state Mortgage/Housing Bank] and the rest of shares belong to all the banks in the country. Of these, the main shareholder is Bank A which has 20 percent of the total participation. After the [multilateral bank], the next largest shareholder is Bank A and its relationship with Firm B is very close. Although all the banks participate on the board and work with Firm B for their securitizations, Bank A has a greater weight. Like Bank A and Brokerage House A, each bank asks Firm B to work with its own brokerage. The only exception is Mutualist Bank A, which does not have its own brokerage house, but works with Brokerage House A in order to trade its securitizations.

Firm B is the Ecuadorian Fannie Mae. Fannie Mae buys a mortgage portfolio, securitizes it, and sells it to investors. The investors are usually not the same actors that generate the portfolio because the idea is that they would continue to generate mortgages. Since these are long term, the banks themselves do not keep them in their portfolio because it affects their liquidity. Instead, what happens is that they discount with Fannie Mae and it sells it to other investors in different term securities: 3, 5, 10 years in order to have an adequate funding to continue financing mortgages.

In the Ecuadorian case, Firm B works for banks like Bank A. However, Bank A securitizes its mortgage portfolio with Firm B and the buyer is Bank A itself! When Firm B securitizes for Bank B, the buyer was Bank B itself! The only one who did not do so was Mutualist Bank A, since, due to its financial limitations, it had to sell if in order to grow. The rest of the banks buy their own securitizations.

Why do they do this? Because the credit portfolio as such accounts for 100 percent in risk asset rating. Therefore, you have to make provisions for the portfolio's late payment and default risk. Credit portfolio is also subject to income tax. Once transformed into securitization, the portfolio is exempt from income tax. In addition, it does not require provisions because the portfolio is no longer in the bank but in a trust. Since provisions are no longer an issue, all that can be accounted into profits and with the only impact accounted being the risk rating of the security. In addition, what used to be a portfolio is now accounted for as liquidity. As you see, banks bought their own securitizations for accounting and tax reasons.

In the period you studied, all the securitizations that Firm B were very large. Nothing really went to be traded for real in the market except Mutual Bank A. The rest was bought by the issuing bank itself. These securitizations are a facade. It wasn't Fannie Mae looking for liquidity to help banks to keep generating mortgages. It was the banks themselves creating an accounting figure. It was an accounting and technical move that allowed them to use the securities market to improve their indicators. This happened in banking very frequently.

The case of Firm C is explained by the historical business relationship it has with the bank. Firm C is a major client of Bank A and therefore also works with the brokerage house. Firm Z was one of the first customers we got through Bank A. I think Firm A should have a stronger relationship with Brokerage House D and Brokerage E. However, there is one issue that perhaps [broker at Brokerage House A] can tell you more about. We will have to see if he wants to comment on it or not. At one point, Brokerage House A reached an agreement to become the brokerage house for important executives of Firm A and its workers' investment funds. In Firm A there is a fund of the employees and there is a fund of the executives. The employees' fund was managed, within Brokerage House A, by one of the traders. The executives' fund was managed by [the CEO at Brokerage House A]. The way they worked was to increase the funds' positions in Firm A shares. That would explain why Brokerage House A shows a large number of transactions that were not necessarily done on behalf of a large number of clients but for these funds or, in other words, large Firm A shareholders who were repurchasing shares. Small clients or retail clients are mostly tied to Brokerage House E. Firm A must have about 15,000 shareholders today. Of those, 5,000 are employees and they're in one of the funds I'm telling you about. I think that would justify the number of transactions you've seen: 5,000 must have worked with Brokerage House E in the period you've analyzed and another 5,000 are lost out there working with various brokerage. Today there is no longer Brokerage House E and those shares must be managed by other brokerage houses.

I told you that these companies with which Brokerage House A has a very close relationship are domiciled in Quito. Beyond being an entity domiciled in Quito, Brokerage House A operates on both stock exchanges, can have and has access to a range of clients nationwide. How can we explain that it does not have large companies from Guayaquil among its clients, for example?

Because Brokerage House A's large clients are clients of the bank. And the bank has a strong presence in the central-northern highlands: Quito, Ambato.

Earlier, I told you about the commissions charged by the securities firms to buy and sell on the stock market. However, I don't have any data about the commissions that are charged to the clients for issuing. How do these commissions work? How do you charge different clients?

The first thing to consider is that there are many players involved in structuring an issuance. Usually, we are talking about issuing bonds or securitizations who participate are: a rating agency, a trustee, a representative of the bondholders. Rating agencies and trust administrators refer their clients to the brokerages with whom they work and vice versa. [A private central securities depository] also participates in the process, as do the exchanges and the Superintendence, which charges fees. Before, even several law firms participated in securitizations and charged more than the brokerages themselves. It's absurd, but that's how it was. The law firms took over the so-called future flows securitizations that "sell air with an air guarantee," and they charged a lot for that. They charged a lot more than the brokers.

But is there differential treatment when working a large client or an old client for their issuances?

Yes. For example, of the names you gave me, Firm C was charged less than Firm Z.

And what did that depend on? On the importance of the client and his ability to negotiate. Firm C is a client that for Bank A is very important. If we charge them a big commission, it was enough for them to call [former CEO of the bank] to have their commission reduced. Firm C is too important a for the financial group to put their relationship with the bank at risk because of a commission for the brokerage house. In contrast to a smaller company like Firm Z, when we first started working with them, their negotiating power was much more limited even though they came to us through the financial group. Now they must have grown more.

Both clients of the bank but of a different category? That is correct.

Another general example: no one can charge Firm A almost anything to issue their stocks because their negotiating power is so strong. You can tell them to pay the mandatory 0.1 percent for trading on the exchange and that is it. But it seems that nowadays, things have already changed.

Since when did this change? That's something the brokers that still work in the markets can tell you. I have been told that today's issuing charge is about USD 15,000 which is really nothing for all the work that needs to be done.

We've talked about the relationship of companies with brokerage firms, about how issuing works. We also talked about market transactions but only the internalized ones. I would like us to talk a little bit about the transactions that are not internalized. When you play the market. That is, in your case when Brokerage House A negotiated with other securities firms.

In my analysis, I see that Brokerage House A sells mostly to Brokerage House E, Brokerage House B, [a large public bank for industrial ventures] and Brokerage House C. All these entities are, in any case, big buyers in the market. On the side of Brokerage House A's purchases, I see a strong dependence on Brokerage House P, Brokerage House M and Brokerage House E (three brokerage houses in Quito). Brokerage House E mainly in the primary market. Additionally, Brokerage House A buys a lot from Brokerage House B, Brokerage House I, Brokerage House S although I wouldn't say they depend on Bank A as a buyer. Do you think this is so and why?

With the small brokerage houses that sell to Brokerage House A, I think they may be something conjectural. In the case of Brokerage House E, I think it must be its high participation in operations with Firm A shares. As I said before, there was a time when Brokerage House A was buying many Firm A shares. It was clear that Brokerage House E was going to be selling a lot as it has always done because it is the one with the most individual clients with Firm A shares. In the last 10 years the value of Firm A shares has fallen a lot so there were many clients with these

shares that wanted to sell and these were Brokerage House E clients. If Brokerage House A was buying on behalf of Firm A's employee and executive funds, it was logical that a strong relationship with Brokerage House E was created.

Brokerage House M and Brokerage House P are very small brokerage houses that were active in the past. Now they hardly move anything anymore. So, I think it had to be a specific event. They probably had a big issuance and Brokerage House A bought the entire thing from them. I don't think it was an embedded relationship, but mostly circumstantial.

Apart from these cases I have mentioned, with which brokerages do you consider Brokerage House A had or has a stronger or more dynamic relationship?

On the one hand, there was a strong relationship between the brokerages of financial groups, as there was always more communication between the banks' treasuries. But sometimes there were also personal relationships that mattered. Broker C of Brokerage House P has a very good relationship with broker J from the time we all worked together. When Broker J moved to another brokerage house, if we wanted to get some securities trading in the market, the first person who he called was Broker J. This way we concentrated a greater number of transactions with Broker J, not because of a better market position and better price, but because we are speaking of a reliable person you could call to offer a deal.

But I don't think these trades based on personal relationships represent such a large percentage in the market. Actually, I don't know if this issue of personal relationships is so important. Yes and no. Another example: Broker H [from Brokerage House D] had a serious problem with Broker R [from Brokerage House C]. They fought over a very large operation that they couldn't accomplish. From then on, if they could avoid trading with each other, they would do so. But this avoid-the-other game can only happen in not-so-standardized titles and not with stocks. For a deal with a specific obligation you can look for a buyer in such a way that you make sure

you sell to someone and avoid somebody else. But with stocks, you can't do that because in the system the orders are arranged without name and it's the best price you're going to pay. In non-standardized securities you can do it and it is also true that our market has many of those type of securities and you can avoid selling to such and such. But, in that case the economic incentive does not play anymore. So, I think the incentives to go with one brokerage and not another are limited.

The truth is, outside of internalized trading, you go out and sell to the market. And what happens in the market is that you see that a brokerage the certain securities of such company A [this reference to "company A" is exactly what the interviewee said] or of such a company B [this reference to "company B" is exactly what the interviewee said] that you are interested in buying and this determines that you have to relate more to that brokerage. For example, there is a problem with the famous retired teachers' bonds. Most of them were tied to a brokerage called Brokerage T. That brokerage house pays "informal commissions" to public sector traders to buy those securities since entities like [a public bank] and others were required to buy a certain percentage of this bonds.

Bribes? Bribes. In any case, what I mean is that this also justifies the concentration of certain securities in a particular operator and that there is no other alternative but to buy from him the security that you demand.

In principle, the market should be more automatic. You should place your order and let everyone kill themselves for that. But this rarely happens because it's not that deep a market. So, there is not such a dynamic demand for securities except for stocks. What we were saying about Brokerage House A and Brokerage House E: if you wanted to buy a Firm A share you usually ended up buying it from Brokerage House E who always had the most offers in the system. You didn't have to look for him or call him. Another example: if you go out to buy shares of Bank F, it will be Brokerage House C, their brokerage, that will sell them to you because it has a lot of clients' sale orders.

Two other phenomena that I have seen in the market is a strong repetition of the same combination of buying value house and buying value house between periods analyzed, that is, throughout the months analyzed. At a lesser level and in some cases, a kind of reciprocity is also seen. For example, if the combination of buyer and seller existed in month one, in month two you have the inverse relationship.

Strong repetition does not surprise me. In most cases, the relationships will always be more loaded on one side. For example, there will always be a high volume of purchases from Brokerage House A to Brokerage House E as I mentioned before and not the other way around. What you call reciprocity I think does occur but to a much lesser extent, but in some cases it is worth commenting on.

In the case of financial groups, there can be a kind of "help me place these securities and I'll buy yours" type of reciprocity, but with a clear accounting reason behind it. Not necessarily because of reciprocity but because of the type of securities being sold. For example, Bank A issued bonds convertible into shares that Bank B bought. Bank B issued convertible bonds bought by Bank A. And these transactions were made between the brokerages of each bank. The net result at the end of the day is zero. But it turns out that both are accounted for as technical equity. So, both banks inflated their technical assets in a single accounting movement. All the bonds convertible into shares except for some issued by Bank A that the [a multilateral bank] bought were traded between the same financial groups to strengthen their technical equity indicators.

Previously, you told me that in the case of Brokerage House A most of the clients were the bank's customers from Quito and the highlands and that a regional preference can be explained like that. Another type of regional differentiation can be seen in the existence of two stock exchanges. However, the brokerages can and do trade on the Quito and Guayaquil exchanges. So, in brokerage (buying and selling of securities), there should not be a regional preference in transactions where you can choose who you do business with?

Normally as a broker you tend to trade on the exchange of your city and this is accentuated in the case of brokerages linked to banks. The banks from the coast and their brokerage houses traded more on the Guayaquil Exchange and the brokerage houses and banks in the highlands traded more on the Quito Exchange. This differentiation was much more noticeable in the coastal banks because the political bargaining power of the Guayaquil exchange is much greater. For example, Brokerage House B, the brokerage house of Bank P, was obliged to trade mostly in the Guayaquil Exchange where the bank has traditionally been. It must also be said that the Guayaquil Exchange has a very particular way of functioning. It offered better commissions and better conditions. At the end of each year they organized by celebrations where they gave away better prizes to brokers for the volumes traded and economic stimuli to operate on the Guayaquil Exchange.

But almost all brokerage houses domiciled in Quito work and traded on the Guayaquil Exchange. They would be equally exposed to these incentives and commissions as their counterparts in Guayaquil?

Brokerage House A traded more on the Quito Exchange. It has always been like that. But we were not going to fight if something had to be done through Guayaquil. A particular exception is what happens with Bank B [a large bank in the country with domicile in Quito], which back in the day had a very strong fight with an executive from the Quito Exchange. It happened some 10 or 15 years ago and Bank B began to operate mainly on the Guayaquil Exchange because of a resentment with the head of the Quito Exchange. It was an absurd but real factor of strong resentment from Bank B's brokerage house that made them go and negotiate almost everything through Guayaquil. Bank B is a very important player and its brokerage house is equally important.

For the private brokerage houses not related to financial groups, the economic stimulus offered by the Guayaquil Exchange was important because they offered good prizes. The Quito exchange did not offer that. Neither it would give you certain facilities that I would call semi-legal. For example, the Guayaquil Securities

Exchange would "forget" that compensation was mandatory and let you compensate outside. So, you didn't pay through the exchange but paid directly to your client. The exchange only charged its own commissions and the operation never compensated. Those things that are really illegal were allowed by the Guayaquil Exchange. With those more informal operations, if you want, it was easier to trade through Guayaquil.

But I insist that the key explanatory element is the relationship at the level of the heads of the large financial groups that normally operated in the exchange where their headquarters are located, except for the case of Bank B that I mentioned. For its part, the public sector traded 50-50 and the small brokerage houses traded more on their local exchange despite they can play in both places as you mention. Of course, unless there's some kind of stimulus that makes them go the other way. With this in mind, normally, Guayaquil's exchange should have a higher trading volume than Quito.

Could we say then that regional preference is not generated among brokerages but from clients and also considering the key role of the stock exchanges?

If there is a regional issue, it is located at the level of the big economic groups that prefer their brokerages and the stock exchanges where they have their headquarters.

[The transcription stops here. The rest of the interview was an unrecorded informal conversation]

Appendix H

Glossary of acronyms

AIC	Akaike Informational Criteria
ARDL	Auto-Regressive Distributed Lag
ATM	Automated teller machine
BIESS	Bank of the National Pension Fund
BVG	Guayaquil Securities Exchange
BVQ	Quito Securities Exchange
CDR	Reprogrammed Certificates of Deposit
CEO	Chief Executive Officer
CFN	National Finance Corporation
CNV	National Securities Council
ECE	Emerging capitalist economy
ECLAC	United Nations Economic Commission for Latin America and Caribbean
EMELEC	Electric company of Ecuador
ESMA	European Securities Market Authority
FDI	Foreign Direct Investment
FIAB	Iberoamerican Federation of Securities Exchanges
GDP	Gross domestic product
HME	Hierarchical Market Economy
IMF	International Monetary Fund
INEC	National Institute of Statistics and Census
IPO	Initial Public Offering
ISEB	Higher Institute of Brazilian Studies
ISD	Tax on foreign currency outflow
ISIC	Standard Industrial Classification of All Economic Activities
M&A	Mergers and acquisitions
SCVS	Superintendency of Companies, Securities, and Insurance
SEC	Securities and Exchange Commission
SRI	Internal Revenue Service
UN	United Nations
US	United States of America
USD	Dollar of the United States of America

Résumé de la thèse

La finance occupe une place incontestée dans les sociétés contemporaines. Lorsque nous pensons à sa rapide expansion, notre attention se porte principalement sur les grands centres financiers d'Amérique du Nord et d'Europe et, plus récemment, sur les marchés émergents en d'Asie et sur les juridictions offshores. Cependant, la finance s'est imposée partout et prend différentes formes selon les environnements dans lesquels elle évolue. Il y a plus d'une décennie, la crise de 2007-2009 a renforcé l'intérêt déjà existant de la sociologie et d'autres disciplines pour la finance, qui avait été principalement abordée sous l'angle de l'économie. Les principales contributions à une compréhension plus complète des marchés financiers, de leur expansion et de leurs conséquences ont notamment été produites par des chercheurs qui se sont concentrés sur la manière dont l'action économique est socialement encadrée (socially embedded) ([Granovetter, 1985](#)). Les travaux les plus pertinents ont été présentés dans des compilations qui soulignent la contribution de la sociologie et d'autres disciplines à l'étude de la finance ([Knorr Cetina & Preda, 2012](#)) et remettent frontalement en question leurs conséquences et leurs contradictions ([Lounsbury & Hirsch, 2010](#)).

Bien que l'évolution des marchés financiers dans les économies développées soit rapidement devenue un sujet central de la sociologie économique, peu d'attention est encore accordée aux cas qui s'écartent des modèles occidentaux. Dans les faits, la mondialisation de la finance a entraîné l'apparition de multiples variétés locales et régionales qui ont été négligées. Ces variétés peuvent présenter certaines caractéristiques que l'on trouve sur les marchés bien connus (et bien étudiés), mais

aussi des caractéristiques particulières dû aux environnements dans lesquels elles se développent. Abordés par les économistes avec les mêmes critères que ceux utilisés pour expliquer l'évolution des grands centres financiers occidentaux, de nombreux marchés non traditionnels ont été rapidement qualifiés d'échecs. C'est le cas des marchés boursiers latino-américains, dont le sous-développement est mis en évidence par l'abondante littérature sur les marchés de capitaux. À l'inverse, les sociologues ont souligné la pertinence de ces cas apparemment sous-développés et la contribution potentielle de leur étude (Fligstein, 1996; Granovetter, 2010). Malgré cela, nous ne savons toujours pas grand-chose de ces marchés (Fligstein, 1996; Granovetter, 2010) où le statu quo des acteurs locaux semble prévaloir sur la financiarisation accélérée. Néanmoins, ces marchés « défaillants » jouent un rôle clé dans leurs sociétés, montrent qu'il n'y a pas qu'un seul type de développement financier et occupent leur place dans l'ensemble du capitalisme contemporain.

Cette thèse étudie le cas du marché boursier de l'Équateur—un marché inefficace mais fonctionnel— qui est profondément ancré dans un contexte local unique au pays, mais qui partage également des caractéristiques avec les marchés d'autres économies en développement et développées. Afin de problématiser son (sous)développement, ce marché est examiné sous l'angle de ses relations sociales, de la manière dont elles influencent les décisions économiques et les résultats qu'elles produisent. Les marchés boursiers émergents sont d'excellents laboratoires pour étudier comment les processus locaux ont une incidence sur le comportement des investisseurs et les stratégies de négociation, comme le montrent les travaux de Yenkey (2015, 2018) sur la bourse kényane. Les marchés latino-américains ont été moins explorés que d'autres économies émergentes et présentent des opportunités précieuses pour faire avancer ou réviser les discussions théoriques et empiriques clés, compte tenu de leur abondant ancrage culturel, social et politique spécifique (González & Madariaga, 2018). La littérature spécialisée sur les marchés de capitaux en Amérique latine indique que le marché de l'Équateur est un autre cas d'échec en raison de son manque de liquidité, de sa faible innovation et de la participation restreinte des entreprises et des investisseurs (De la Torre & Schmukler, 2006). En

réalité, comme nous le verrons en détail au chapitre 2, il s'agit du marché le moins performant de la région et il présente des caractéristiques particulières telles que la négociation limitée d'actions et le faible développement de son marché secondaire. Ces caractéristiques sont en contradiction flagrante avec les performances attendues pour ce type de marché. Néanmoins, le marché boursier de l'Équateur a persisté au fil du temps, capturé dans le rentisme étatique et privé, les intérêts de grands groupes économiques et reflétant la division régionale du pays entre les deux pôles de développement : la capitale politique, Quito, et la capitale économique, Guayaquil. Les transactions économiques du marché sont profondément ancrées dans ces caractéristiques qui émergent de l'économie politique du pays. Dans un même temps, les transactions reflètent les stratégies que les acteurs génèrent pour subsister ou pour renforcer leurs positions avantageuses, éléments qui sont encore très présents dans les marchés modernes (Foureault et al., 2021). Cette vie sociale complexe explique pourquoi ce cas ne ressemble pas au développement classique des marchés boursiers, ni n'a suivi les modèles d'internalisation financière ou de subordination que l'on trouve dans des économies similaires (Bonizzi et al., 2020). Cependant, dans le cadre de sa propre dynamique, le marché facilite toujours la réalisation de profits par certains acteurs et entraîne une concentration de la richesse et la reproduction des inégalités qui sont caractéristiques de la financiarisation dans le capitalisme contemporain. A travers cette microsociologie du fonctionnement du marché boursier équatorien, nous montrerons comment la finance prend une forme particulière lorsqu'elle s'insère dans des dynamiques locales tout en conservant certaines caractéristiques que l'on trouve dans d'autres marchés de ce type. Ma recherche montre que ce marché n'échappe pas aux effets et aux conséquences de l'expansion globale de la finance.

Dans cette thèse, nous soutenons que l'approche théorique de l'encastrement (market embeddedness) est la meilleure façon d'étudier ce marché. Néanmoins, cela implique de faire progresser la théorie existante et de réexaminer certaines questions en suspens. Comprendre comment de multiples phénomènes sociaux influencent l'action économique dans un marché profondément ancré exige d'élargir ce que les

recherches antérieures ont fait. La plupart des travaux consacrés à répondre à des questions similaires se sont concentrés sur l'étude du rôle des réseaux personnels ou d'entreprises (i.e. : Baker, 1984, 1990; Granovetter, 1985; Uzzi, 1996, 1997, 1999). En revanche, certaines recherches ouvrent d'autres possibilités d'analyse en étudiant d'autres dispositifs sociaux qui influencent les décisions économiques. Les recherches portant sur le rôle du pouvoir, de la culture et des dispositifs de calcul élargissent le champ du market embeddedness (Beckert, 1996; Krippner & Alvarez, 2007; Zukin & DiMaggio, 1990). Toutefois, ces travaux ne sont pas exhaustifs et se concentrent principalement sur l'étude d'un mécanisme ou dispositif à la fois, alors que l'ancrage social des marchés est manifestement un phénomène complexe. Les solutions au problème de la compartimentation vont du découragement (Krippner & Alvarez, 2007) aux lignes directrices théoriques pour l'intégration des différentes traditions d'intégration (Beckert, 2010, 2011; Zukin & DiMaggio, 1990). Malheureusement, ces dernières n'ont guère été mises en œuvre de manière empirique et sont restées pour l'essentiel au niveau des appels programmatiques.

Cette thèse démontre non seulement que la perspective de l'encastrement social est adaptée à l'examen de l'évolution énigmatique du marché boursier équatorien, mais elle offre également la possibilité de réexaminer la théorie existante. Dans ce cas d'étude, les mécanismes structurels inhérents à la dynamique sociale des marchés et d'autres mécanismes découlant de l'économie politique du pays peuvent être étudiés en tant que liens sociaux exprimés au niveau inter-entreprise. Dans ce sens, nous adoptons l'approche structurelle comme point de départ et nous l'enrichissons en incluant d'autres dispositifs sociaux abordés dans diverses traditions du market embeddedness, tels que la dimension territoriale et le pouvoir exercé par les groupes économiques. Sur la base de ces considérations, cette thèse explore le fonctionnement particulier de ce marché en étudiant la manière dont les liens personnels, professionnels et régionaux influencent les transactions économiques et leurs résultats.

En conséquence, cette ample question de recherche peut être décomposée en plusieurs questions qui sont abordées tout au long de la thèse :

- Comment des transactions profondément ancrées dans des réseaux personnels, inter-entreprises et régionaux empêchent-elles le marché boursier équatorien de se développer tout en le maintenant fonctionnel ?
- Comment ces différents types de liens sociaux affectent-ils la probabilité d'embauche (relations entreprise-sociétés de courtage) et de négociation (relations entre sociétés de courtage) sur le marché ?
- Quels sont les facteurs qui expliquent le déploiement variable des stratégies de trading socialement intégrées par les sociétés de courtage ?
- Comment les sociétés de courtage combinent-elles les différents types de stratégies sociales de trading à long terme ?
- Quels sont les résultats économiques particuliers et globaux des liens personnels, inter-entreprises et régionaux dans ce marché ?

Pour répondre à ces questions et éclairer le fonctionnement de ce marché, nous avons suivi une approche méthodologique mixte qui examine deux types d'activités économiques : l'embauche de maisons de courtage par des entreprises souhaitant obtenir un financement sur le marché et le trading entre maisons de courtage. Une série de 22 entretiens avec des courtiers et d'autres acteurs du marché a permis de recueillir les premières évidences et de développer des hypothèses qui ont ensuite été explorées à l'aide de divers outils statistiques. Pour la deuxième partie de ma recherche, nous avons construit une base de données composée des enregistrements de toutes les transactions effectuées sur le marché entre le 1er janvier 2007 et le 30 juin 2017 (soit un total de 126 mois de transactions). Non disponibles au public, les données originales ont été demandées aux deux bourses (de Guayaquil et de Quito) par la Superintendance des sociétés, du marché boursier et des assurances (SCVS, pour son acronyme espagnol) à l'occasion de ce projet de doctorat. Certaines informations complémentaires sur les lieux et les secteurs économiques des entreprises ont été recueillies dans le catalogue du magazine économique Ekos et sur les sites web des entreprises. Les enregistrements détaillés de chaque transaction

contiennent des informations qui ont permis de construire les variables nécessaires à l'analyse. Ces variables comprennent divers types de relations dyadiques entre les acteurs (entreprises et maisons de courtage), telles que la répétition et la réciprocité, les interactions régionales et les liens qui rendent compte de l'exercice du pouvoir par des élites économiques. Ces données permettent également d'étudier d'autres variables telles que les volumes de transactions (trading volumes), le nombre de transactions et les commissions au niveau de chaque maison de courtage et au niveau agrégé (pour tout le marché). Ces données sont essentielles pour comparer les performances des acteurs du marché avec les résultats du marché dans son ensemble afin d'explorer l'énigme de son échec apparent.

L'analyse des données qualitatives et quantitatives montre que différents liens sociaux existent effectivement dans ce marché et qu'ils influencent la probabilité et l'intensité de l'embauche et du trading. Ces liens prennent la forme de stratégies d'embauche et du trading que nous avons classées comme suit : trading internalisé, réciprocité, négociation inter-élite, collaboration récurrente et régionalisme. Dans le cas des transactions d'embauche entre les entreprises émettrices et les maisons de courtage, seulement la collaboration récurrente et le régionalisme s'appliquent. En effet, les interactions bidirectionnelles ne sont pas possibles pour ces transactions, comme c'est le cas pour les relations entre maisons de courtage. Mes résultats montrent que la collaboration récurrente est un facteur déterminant de la prise de décision, comme l'ont suggéré des travaux antérieurs sur les marchés financiers (Boussard et al., 2019; Mintz & Schwartz, 1987; Petersen & Rajan, 1994; Uzzi, 1999). En approfondissant cette approche classique par l'étude des liens dyadiques qui se répètent dans le temps, nous montrons que nous devons aussi examiner la présence importante de *boucles* (loops) pour l'analyse de *transactions internalisées*, un type de préférence où une maison de courtage agit en tant qu'acheteur et vendeur dans la même négociation. Ce type de stratégie est extrêmement influent sur la probabilité du trading. Ensuite, nous montrons que la réciprocité, le régionalisme et le rôle des réseaux de pouvoir contrôlés par de grands groupes bancaires ont un impact sur la probabilité de négociation dans ce marché électronique où tous les acteurs sont

interconnectés et où les cotations peuvent être réalisées de manière anonyme. Ce cas montre que les préférences sociales qui ont été étudiées dans les anciens bourses du type out-cry (Baker, 1984) existent également sur les marchés modernes qui sont censés être exempts de ces « biais ».

Spécifiquement sur le trading, mes recherches montrent que toutes les stratégies ne sont pas déployées de la même manière par les maisons de courtage et que les variations dépendent de facteurs sociaux. Mes résultats suggèrent que les maisons de courtage les plus puissantes tirent davantage parti du « trading social » pour maintenir leur statu quo. Par conséquent, mon analyse contredit la théorie antérieure selon laquelle les acteurs les plus petits ou les plus faibles s'appuient sur leurs liens sociaux pour faire face aux conditions difficiles propres au marchés financiers (Baker, 1990). En revanche, nous contribuons aux travaux existants qui suggèrent que ce sont les grands acteurs économiques qui utilisent leurs liens sociaux pour renforcer leurs positions privilégiées (Granovetter, 1995, 2010; Khanna & Rivkin, 2000; Lancaster & Uzzi, 2012; Uzzi & Lancaster, 2004). Mes résultats suggèrent également que les divisions régionales jouent un rôle important dans le déploiement des stratégies de trading. Les maisons de courtage de la capitale, Quito, effectuent davantage de transactions à caractère social que celles situées à Guayaquil, dont les pratiques sont généralement considérées comme plus éloignées des normes d'un marché moderne.

Lorsque le déploiement du trading internalisé est étudié en détail, l'analyse fournit des évidences significatives sur la nature énigmatique de ce marché. Bien que les transactions soient fortement concentrées sur le marché primaire, les maisons de courtage qui s'engagent davantage sur le marché secondaire sont celles qui « internalisent » le plus leurs transactions. Il s'agit là d'une première preuve qui aide directement à comprendre la performance d'un marché encadré dans la dynamique de groupes économiques endogamiques. Si les transactions sur le marché secondaire n'impliquent que des mouvements de liquidité au sein d'un groupe restreint de clients, il n'y a pas de véritable développement ou expansion de ce type de marché. En outre, mes recherches montrent que la négociation d'actions sur le marché primaire se fait essentiellement par le biais de l'internalisation. Cela limite

la participation en bourse à des groupes exclusifs d'investisseurs, ce qui reflète la structure restrictive du capital en Équateur (Larrea & Greene, 2018) et les pratiques endogamiques des groupes économiques familiaux (Carrión, 1991; Hanson, 1971; North, 1985, 2018; Pástor Pazmiño, 2016).

En ce qui concerne l'utilisation combinée des stratégies de trading, mes conclusions indiquent qu'à long terme, les maisons de courtage privilégient certaines paires de stratégies. Les modèles statistiques examinant les transactions individuelles ainsi que les modèles analysant les variations entre et intra les maisons de courtage suggèrent que les combinaisons intertemporelles les plus fortes existent entre : a) le trading régional et la collaboration récurrente et b) la collaboration récurrente et la réciprocité. Cette partie de ma recherche, discutée au chapitre 4, présente plusieurs possibilités d'expansion dans les étapes futures de ce projet ou pour des recherches similaires visant à intégrer différentes traditions du market embeddedness (Beckert, 2010, 2011; Krippner, 2004; Krippner & Alvarez, 2007; Zukin & DiMaggio, 1990).

Enfin, cette thèse analyse les résultats économiques obtenus par différents types de stratégies de trading au niveau des maisons de courtage et au niveau du marché afin de comprendre comment la vie sociale de ce marché peut bénéficier à certains acteurs et comment cela influe sur la performance globale du marché. À cette fin, les commissions facturées par les maisons de courtage et les volumes de transactions ont été étudiés en tant que variables dépendantes. En ce qui concerne les prix des services de courtage, mes conclusions suggèrent que les échanges récurrents et réciproques sont des mécanismes qui préservent la confiance dans les relations entre les maisons de courtage et leurs clients. Pour ce faire, les maisons de courtage réduisent leurs frais. Des résultats similaires ont été obtenus pour les transactions effectuées sur une base régionale ou en accordant un traitement préférentiel aux acteurs appartenant à de grands groupes économiques ou étroitement liés à ceux-ci. Le comportement des maisons de courtage qui adoptent ces stratégies est similaire à ce que montrent des recherches antérieures sur d'autres types de services sur les marchés financiers, comme les travaux de Lancaster and Uzzi (2012); Uzzi and Lancaster (2004) sur le consulting juridique, où les liens sociaux se conservent grâce à des prix plus bas.

L'étude des frais des transactions internalisées a donné des résultats très intéressants, car elle montre que ce type de transactions peut être rentable tout en permettant aux maisons de courtage de conserver des relations de confiance avec leurs clients. Cette constatation particulière apporte des preuves empiriques à la critique formulée par [Tomaskovic-Devey et al. \(2016\)](#) selon laquelle certains liens commerciaux peuvent être motivés à la fois par le profit et la préservation de la confiance. De plus, nous avons étudié les frais chargés sur une base mensuelle, car ils constituent des sources de revenus primordiales pour les maisons de courtage. Nous avons constaté que les acteurs qui perçoivent des revenus de trading plus importants sont également ceux qui sont plus engagés dans tous les types de stratégies sociales de trading, surtout l'internalisation, le trading régional et la collaboration récurrente. En résumé, ceux qui gagnent le plus d'argent sont ceux qui effectuent la plupart de leurs transactions en s'appuyant sur des stratégies de caractère social. Cette constatation complète la conclusion précédente selon laquelle les acteurs les plus puissants (jugés auparavant en fonction du volume d'affaires qu'ils génèrent) s'appuient le plus sur ces liens sociaux.

L'analyse des volumes de transactions des maisons de courtage peut être comparée aux résultats globaux du marché. Mes conclusions suggèrent que la plupart des stratégies sont associées à des volumes de transactions plus importants pour les maisons de courtage, mais qu'elles sont préjudiciables à la performance globale du marché. Le recours à plusieurs stratégies de trading favorise les résultats des maisons de courtage mais se fait au détriment des échanges avec d'autres partenaires, ce qui affecte les performances globales du marché. Cette dernière constatation est fondamentale pour comprendre le développement énigmatique du marché : les liens sociaux peuvent favoriser des profits au niveau des maisons de courtage et, dans le même temps, empêcher le développement global du marché.

Contrairement aux appréciations antérieures des économistes et des décideurs politiques, le marché boursier équatorien n'est pas un échec. Bien que ses indicateurs globaux témoignent de sa sous-performance et qu'il ne suive pas les modèles attendus d'internalisation financière ou de subordination, ce marché est fonctionnel

pour certains participants et facilite leurs profits. Il s'agit certes d'un cas singulier dans lequel les caractéristiques de l'économie politique équatorienne coexistent avec d'autres caractéristiques sociales qui ont été largement étudiées dans les marchés financiers anciens et contemporains. Le fait que ce marché soit ancré dans une vie sociale riche est loin de signifier qu'il ne fonctionne pas correctement. De plus, le fait que ce marché s'écarte à certains égards des formats classiques ne signifie pas qu'il est étranger à la scène financière mondiale : son fonctionnement implique la concentration des richesses et la reproduction des inégalités qui sont caractéristiques de la financiarisation dans le capitalisme contemporain.