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Mapping the trading behavior of the middle class in emerging markets: Evidence from the Istanbul Stock Exchange

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ABSTRACT

Predicted to grow above 4.9 billion by 2030, with an overall spending capacity of $56 trillion, the rise of the middle class in emerging markets has attracted global practitioner and academic attention. How this new wealth will be invested is a central question; yet our understanding still remains fragmented. Drawing on the literatures of international business, behavioral economics and finance and using high-frequency stock market data, we examine and map the trading behavior of the middle class in Turkey, one of the fastest rising economic powers of the East. We find that middle class traders exhibit discernible differences to professionals, with respect to risk attitudes and stock preferences (e.g. prefer lower-risk, smaller-size and 'value' stocks). In addition, while they typically hold small portfolios and tend to realize lower gains than professionals, their role has become considerably influential to the direction of the entire market.

1. Introduction

> "*Thus it is manifest that the best political community is formed by citizens of the middle class, and that those states are likely to be well-administered in which the middle class is large, and stronger if possible than both the other classes, or at any rate than either singly; for the addition of the middle class turns the scale, and prevents either of the extremes from being dominant.*"
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> *Aristotle, Politics, IV 1294b35, trans. Jowett*

The role of the middle class in society has been well acknowledged since the early classical years. The Greek philosopher Aristotle (3rd century BC) firmly believed that for a well-functioning society, a strong, powerful middle class is essential. He argued that a class, which stands between the rich and the poor, the oligarchy and democracy, will be more stable, serving the interests of both sides. Indeed nowadays, the middle class[3] is associated with economic development and progress, by fostering entrepreneurship, innovation and investment (Banerjee & Duflo, 2008), increasing consumer demand (Kharas, 2010), and encouraging policy reforms, institutional changes and public investments conducive to growth (Ravallion, 2010). In fact, countries with a larger middle class tend to enjoy more rapid progress against poverty.

However, more and more evidence comes to light regarding the constant shrinking of the middle class in the developed countries (Pressman, 2007; Scott & Pressman, 2011). In the United States for example, the gap between the poor and the very rich has kept on widening since the early 1980s; nowadays one percent of the economy earns more than 23 percent of the national income. Since the poor receive only a small part of the economic pie, it is clear that the middle-class has suffered the most (Scott & Pressman, 2011, p. 333). It is therefore easy to distill why a lot of attention has recently been placed on the emerging markets around the world, and particularly on their rapidly rising *middle classes*. With just four of these economies – China, India, Indonesia and Brazil – covering 42.61 percent of the global population, the potential power shared

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[3] Theoretically middle class is the stratum in society between the rich and the poor. Practically, defining middle class has been extremely precarious in the literature, especially when comparing nations at different levels of economic development and national poverty lines. In fact, what makes for the cut-off point in the poverty lines in the developed world, can be classified as the middle or even the upper middle class in other countries around the world, e.g. India, Africa (Banerjee & Duflo, 2008; Birdsall, 2010; Ravallion, 2010). In relative terms, middle class is identified by dividing the households within a specific market according to their comparative income generation (Birdsall, 2010) or their consumption distribution (Banerjee & Duflo, 2008). In these terms, a middle class household would be positioned somewhere between the 20th and 90th percentile of the income or the consumption distribution.

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across these markets is simply unprecedented. Even a small increase in the size of their middle classes is deemed to have a knock-on effect not only on the economic growth of their respective regions (Easterly, 2001), but also on the global consumer and trade markets (Murphy, Shleifer, & Vishny, 1989).

To fully appreciate the role of the newly formed middle classes in the global marketplace, it is pertinent to establish a good understanding of their behavior as economic actors within (Bourdieu (1984)). To this end, much attention has been paid on mapping the behavior of the rising middle classes as consumers, by examining cultural characteristics, consuming patterns, tastes and lifestyle choices (Banerjee & Duflo, 2008; Farrell, Gersch, & Stephenson, 2006; Kravets & Sandikci, 2014). However, uneven attention has been given to the investment behavior of the middle class, particularly with respect to the capital accumulation process of marketable intangibles, such as stocks, bonds and other tradable assets. In the current study, we try to bridge this gap in the literature by examining the behavior of the middle class traders in emerging markets. Our objective is to *map their trading patterns and contribute towards a theory on the risk attitudes and trading performance of the middle class in these countries*.

As an emerging economy grows and more households enter the middle-income tier, there is an increasing demand for savings and investment alternatives that will allow those households to achieve their required consumption patterns and maximize their utility functions. Yet, with the steep rise in housing prices and under conditions of low inflation-adjusted interest rates, often evidenced across emerging economies, more and more households turn to investments in capital and commodities markets, most notably equities and gold (World Gold Council, 2014). After all, while investing in stocks is risky, it is inarguably a means to increase one's wealth in the long run, as well as to diversify a heavily undiversified investment portfolio, usually comprising exclusively of property.

We take a multidisciplinary approach: drawing on the literatures of international business and behavioral economics, and using a finance research methodology, we shed light in this relatively under-examined issue. We specifically investigate the trading habits of middle class investors in an emerging market, focusing on Turkey, one of the fastest rising economic powers of the East. In particular, we investigate the behavior of middle class (retail) traders in the Istanbul Stock Exchange.

Using daily 'tick-by-tick'[4] data of approximately 9.1 million trades in the stocks of the BIST-30 Index over a six-month period, we split the trades into those by middle class investors and those by market professionals. To proxy for the middle class group we assume that the majority of small trades – as analogically defined in Barber, Odean, and Zhu (2009) – are initiated by middle class market participants and large trades by professional investors. As such, we portray the typical middle class trader and reveal their risk attitudes and preferences with regard to firm capitalization and other characteristics. We also offer insights on the impact of middle class trading activity on market movements.

The remaining of the paper is structured as follows: Section 2 presents the key theoretical and institutional background of the study. In Section 3, we describe the data and the methodology employed. Next, we present the empirical results, which are subsequently discussed in the following section. Finally, we draw further conclusions and offer recommendations for future research and practical implications.

[4] Tick data refers to any high frequency market data, which shows the price and volume of every single transaction between a buyer and a seller for every stock.

2. Literature and background

2.1. The size and economic behavior of the middle class in emerging markets

According to the OECD Development Centre report in 2010, the global middle class is expected to increase from 1.8 billion to 3.2 billion by 2020 and to 4.9 billion by 2030 (Kharas, 2010, p. 27), with the vast majority of this rise (almost 85 percent) attributed to Asia. Although half of the increase is attributed to China alone (Farrell et al., 2006; Kharas, 2010; Ravallion, 2010), many countries are also closely monitored for their contribution. Along with the estimation of the size of these unchartered markets, comes the realization of their growing purchasing power. McKinsey estimates that by 2025, China's lower middle class alone will comprise more than 520 million people with a total disposable income of approximately $1.6 trillion (Farrell et al., 2006). When these figures are combined globally, it is estimated that by 2030, global middle class spending will skyrocket to $56 trillion (from $21 trillion in 2009), which could even "offset the stagnant purchasing power most analysts see as likely in the developed world" (Kharas, 2010, p. 28). How this money will be allocated and the general financial behavior of its proprietors are undoubtedly critical questions.

International business and marketing scholars have been particularly interested in the distinct consumption patterns of the rising middle classes. After all, being considered as "the most conspicuous aspect of class behavior" (Raynor, 1969, p. 69), consumption patterns have widely been used to classify people in different status groups (Corneo & Jeanne, 1997; Kravets & Sandikci, 2014; Mason et al., 1983; Veblen, 2007; Vigneron & Johnson, 1999). A clear divergence between the middle class and the poor with respect to their attitude towards consumption, entertainment, education, health care and so on is in fact well documented (Banerjee & Duflo, 2008; Farrell et al., 2006; Kharas, 2010). Consequently, consumer tastes and living styles have become status symbols, denoting the differentiation among classes, and providing a way for people to recognize their position and that of others within a certain class.

Despite the rich literature on consumption patterns, our understanding of the economic behavior of the newly formed middle class remains partial; according to Bourdieu (1986) the middle class is distinguished by the accumulation of economic, cultural and social capital. The economic capital, in particular, incorporates all property rights from knowledge to marketable tangibles, such as consumer goods and services, and marketable intangibles, such as credit, goodwill, brand names, trademarks, stocks, bonds and other tradable assets that can be easily transformed into money. To map the economic behavior of the middle classes, we therefore also need to identify how they are accumulating marketable intangibles, for instance how they behave as investors. Unfortunately, so far there has been limited focus on the investment behavior of the new middle class in emerging markets. To this front, mostly real estate and commodities have been studied as choices of middle class investment (Goyal & Sharma, 2014; World Gold Council, 2014).

2.2. Turkey as an emerging market

Modern day Turkey is a relatively young economy and yet one of the most rapidly growing emerging markets. With a GDP per capita growth of approximately 60 percent within less than a decade (from $11,394 in 2005 to $18,114 in 2013[5]), and a constantly growing population of 75 million, Turkey is ranked as

[5] Country statistical profiles: Key tables, OECD, 2014 – ISSN 2075-2288.