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Watching Foreigners:

How counterparties enable herds, crowds, and generate liquidity in financial markets

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Abstract

This article provides a new view on the old problem of herding in the global south by foreign portfolio investors. It advocates a liquidity perspective that problematizes the capacity for a herd to form because of the absence of sufficient counterparties willing to trade. Drawing on ethnographic interviews with local professional investors in Malaysia (a substantively and theoretically important stock market) the findings are non-intuitive relative to the common-sense expectations of the information asymmetry and identity-based herding literatures. Although locals watch their foreign competitors closely, and therefore could imitate their trades, these small, local finance firms find few reasons to imitate these powerful international actors. Instead, locals enable crowds of foreigners because they are willing to be counterparties even when they perceive the foreigner's trade as savvy, highly skilled, or informed. The conclusion explores implications for herding, global capital flows, and social structures that may generate liquidity in business-to-business markets.

Keywords

developing countries; financial markets; globalization; herding; liquidity; Malaysia; strategic interactions

JEL classification

F65 – Globalization: Finance

G11 – Portfolio Choice; Investment Decisions

G23 – Institutional Investors

1. Introduction

“Nearly everyone who has written anything about the market has in one way or other acknowledged the ‘crowd syndrome’ of the market. It is an undeniable fact of market life...” notes Charles Smith (1999, p. 123), who has conducted over three thousand hours of participant observation and numerous interviews with financial workers in U.S. stock markets over a thirty year period (p. 176). Smith is describing what is often inferred to be “**herding**,” the imitation of an earlier investor’s executed trade (see Table 1 for illustrations). Smith is neither the first nor the most recent to make this observation. Urs Stäheli (2006) traces back at least 150 years the argument that financial markets are made up of crowds, subject to crowd-dynamics. Many of the oldest books that Stäheli examines continue to be quoted and favorably cited in contemporary finance research and in applied investment guidebooks, particularly those drawing on the behavioral finance literature (e.g., Charles Mackay’s 1841 book is cited in surveys by Bikchandani & Sharma (2001) and Devenow & Welch (1996)). While early sociological work on financial markets emphasized subrational crowd dynamics (e.g., Adler and Adler, 1984), the contemporary literature in finance studies generally explores boundedly-rational explanations for herding.¹

Herds are argued to be particularly pernicious in the global south, where foreign investors are said to destabilize local markets by rapidly imitating one another into or out of a country’s financial instruments or markets. For example, in a number of influential books, Griffith-Jones (1998) has argued that in contrast to foreign direct investment and official development aid, foreign portfolio investment is dangerously “hot capital.” Similarly, others have argued that local professional investors in the global south may imitate these powerful, potentially knowledgeable outsiders located in the world’s largest investment firms (e.g., Jomo K.S. *et al.*, 2001; Yoo, 2011). I suggest that these views of local and foreign portfolio investors replicating the trades of earlier decision-makers significantly shapes our understanding of the consequences of globalization and finance capitalism (e.g., see how Maxfield (1998) uses these propositions to draw political implications for countries in the global south).

Two problems vex the herding literature. First, the econometric literature is unable to empirically distinguish herding from mere crowding. I define **crowding** as a trader behaving similarly to a previous trader, regardless of cause (see Table 1 for illustrations). As argued in the literature review, econometric research has documented that crowding is pervasive, however it remains an open empirical question how much of this is caused by herding. To answer this question requires data on what investors know about their competitors’ trades, as well as investors’ intentions behind their trades.

Table 1

Crowding is the observation of Investor A and Investor B behaving similarly; that is, correlated behavior regardless of causation. This article describes two forms of crowding: herding and non-herd crowding:

	Herding	Non-herd Crowding
Definition	Investors A and B behave similarly, because Investor A has imitated investor B's trade.	Investors A and B behave similarly, and herding has been analytically or empirically ruled out.
Illustrations in Stock Markets	<p>Investor A purchases the same shares as Investor B after having a conversation with B regarding her view of the company, or after speaking with their common broker regarding B's decision.</p> <p><i>This illustrates a strong inference of herding because A is knowledgeable about B's trade and implicitly uses this information in his decision. The inference would be even stronger if Investor A explains that B's trade was influential in his decision.</i></p>	<p>Investor A purchases the same shares as B, without knowledge of B's decision, because A & B share the same interpretation of public information, and pursue the same private strategy.</p> <p>Investors A & B purchase the same shares because the two individuals share similar investment conventions, or because the two firms have similar organizational decision-making structures.</p> <p><i>These two illustrations of crowding are not herding because A is not watching B.</i></p> <p>Investors A & B purchase the same stock, without knowledge of the other's decision, because they independently respond to the same price trend (e.g., the 'momentum' trading strategy described in the text).</p> <p><i>This illustration is not herding because A is watching a price movement, not an investor's decision. Observing the former is insufficient information to infer the latter (Preda 2013:45). See endnote 7 for details.</i></p>

A second weakness is the herding literature's omission of the underlying problem of liquidity. "Liquidity is the ability to trade when you want to trade. Some orders offer liquidity by presenting other traders with trading opportunities. Other orders take liquidity by seizing those opportunities" (Harris, 2003, p. 68, emphasis removed; also see Carruthers and Stinchcombe, 1999; Carruthers, 2010; MacKenzie *et al.*, 2012). In cambist markets—including stock markets—every trade in a crowd or herd must be matched by a counterparty (Smith, 1999, pp. 126-129; Grinblatt and Keloharju, 2000, p. 45; see Knorr Cetina and Bruegger, 2004, pp. 159-163 on cambist markets; Hirschleifer and Teoh, 2008, pp. 30-31). For a crowd to sell (or buy) a stock, there must be counterparties willing to purchase (or sell) the stock. Crowds cannot form without counterparties willing to trade with them. Pitluck (2011) found that to trade in the equity markets of the global north and south alike, large professional investors often cannot trade rapidly because desired trades typically do not have available counterparties. In emerging markets, econometric studies suggest that crowds of foreigners may be partly enabled by local professional investors willing to act as their counterparties (Grinblatt and Keloharju, 2000; Froot *et al.*, 2001). In light of these pervasive liquidity constraints, the ability for crowds or herds to form—particularly by 'large' foreign portfolio investors in 'small' emerging markets—is therefore particularly puzzling.

This article addresses both deficiencies in the herding literature by investigating not only professional investors' trading behavior but also their causal narratives regarding their recent trades. This article asks: Why do local professional investors choose to strategically imitate the trades of foreign investors (i.e., to herd and take liquidity), or choose to strategically trade as a counterparty for the next such trade (i.e., to provide liquidity and thereby enable a crowd).

The findings are non-intuitive relative to the common-sense expectations of the information asymmetry and identity-based herding literatures. I find that although local professional investors watch their foreign competitors closely, they rarely imitate the trades of foreigners. If the foreigners' trade elicits any action, locals tend to act as the crowd's counterparty—selling to the next buyer or buying from the next seller. Counter-intuitively, these small, local finance firms find few reasons to imitate the powerful international investment firms that invest in their market. I argue that locals enable crowds or herds of foreigners because they are willing to be counterparties even when they perceive the foreigner's trade as savvy, highly skilled, or informed. The conclusion explores the implications of these unexpected findings for research on professional investor behavior, the social structure of global capital flows, and what characteristics may generate liquidity in business-to-business markets.

2. Case study and methodology

This article seeks to search for and understand the social logic for herding in a place where many theorists most expect to find it – in stock markets in the global south. When professional investors trade overseas, they appear to be particularly prone to crowding (and therefore, possibly herding). Inter-day crowding by foreign professional investors have been observed in Taiwan (Chen *et al.*, 2008) and in 44 countries, both in the global north and the global south (Froot and O'Connell and Seasholes, 2001). Borensztein and Gelos (2003) have found evidence of inter-month crowding by foreigners in a database that includes about 80% of dedicated emerging market funds worldwide.

Among countries in the global south, the Malaysian stock market is a particularly fertile location to study the social interaction between foreign and local investors. The Malaysian stock market has been unusually successful as a “capital catcher” attracting foreign portfolio investment. Most professional investors invest primarily in their home market—a phenomenon referred to as “home bias” (Karen, 1999). Outside of the United States, United Kingdom, Euro-currency countries, and Japan, nearly all foreign portfolio investment flows to ten of the twenty so-called “investable emerging markets,” identified as such by Standard & Poor’s and other finance industry institutions (World Bank, 2008).² Malaysia has been consistently chosen by foreign investors as one of these top ten destinations among emerging markets (World Bank, 2008; Pitluck, 2012). As a consequence, throughout the stock market’s existence, foreign investors have owned a large percentage of the stock market’s capitalization, and have been large and potentially influential players in the market, due in large part to favorable government policies (Chin Kok Fay and Jomo K. S., 2000; Chin Kok Fay and Jomo K.S., 2001; Wong Sau Ngan and Shanthi Kandiah, 2008). For example, in the 1990s, a period leading up to and following the 1997-98 Asian financial crisis, foreign ownership of all corporations listed on the Malaysian stock exchange ranged between 16% and 26% of total market capitalization. This figure was 23% as of November 2011 (International Monetary Fund, 2013, p. 12). Foreign professional investors also comprise large players in daily trading. For example, in March 2013 foreign professional investors were involved in 32% of trades (by value traded), while local professional investors participated in 44% (Bursa Malaysia, 2013). Additionally, Malaysia is an important case study in debates regarding financial liberalization and capital controls, largely due to its well-known heterodox implementation of capital controls in 1998-99 following the Asian financial crisis (Jomo, 2001, 2005).

Equally importantly, Malaysian professional investors are potentially motivated to replicate the trades of their foreign competitors. Both sets of investors trade the same stock in the Malaysian stock market and compete for many of the same clients by demonstrating superior performance. By

speaking with shared brokers and competitors, Malaysians are able to 'watch' foreigners in the semi-anonymous market (Choi, 2010; Pitluck, 2011; Preda, 2013; Simon *et al.*, 2013).

This article investigates Malaysian portfolio managers' and brokers' interpretive accounts of their own and foreigners' trading behavior. Both portfolio managers and brokers are expert "informants" (Spradley, 1979, p. 25) in understanding why portfolio managers trade, and why they may herd.

Portfolio managers are responsible for making investment and disinvestment decisions, often in a team, within an asset management firm. They are expert informants regarding their own work practices, as well as their occupational culture in the finance industry. **Brokers** working in brokerage houses service portfolio managers as their clients, and therefore seek to be experts on portfolio managers as well. In Malaysia, brokers typically speak at least daily with each of their prime clients. As a consequence, successful brokers become experts in learning what information portfolio managers value.

The article's argument was induced from tape-recorded semi-structured ethnographic interviews in the Malaysian finance industry in 2001-2 and 2006 (Spradley, 1979). The typical interview is one-on-one and 90 minutes in length. I interviewed 21 Malaysian portfolio managers and 19 Malaysian "institutional" brokers who primarily or exclusively serviced portfolio managers. In response to a series of "grand tour" questions, informants led me through the events and decisions of that day's work, as well as their typical work week. The interviews with fund managers were focused on examining their prosaic work practices surrounding investment and disinvestment decisions, while the interviews with brokers were directed towards describing their working relationships with portfolio managers. In all interviews, informants described the procurement, analysis, and use of information. Interviews were coded and analyzed with respect to the use of information in investment decisions. The native concept of "foreign investors" arose early in interviews. I began incorporating probing questions on this topic as they arose naturally in the course of each interview in order to understand each informant's interpretations of foreign investors, to promote comparability of content across interviews, and to challenge my evolving understanding formed from earlier interviews (Spradley, 1979; Strauss and Corbin, 1990).³ These interviews were selectively transcribed and coded, with greater detail in portions of interviews discussing investment decisions and/or foreign investors.

Interpretive accounts of complex causal processes have their own limitations. How generalizable is this ethnographic account to other countries and times? Throughout this article, I seek evidence for whether my findings have (or fail to have) external validity by searching for econometric studies of similar behavior in other markets and time periods.

3. Literature Review

The econometric literature provides substantial evidence for crowding but is unable to establish how much of this is caused by herding. In my reading, the interdisciplinary herding literature cleaves into two distinct explanations for why professional investors herd: either prior decision-makers are interpreted as better informed, or investors use the identity of prior decision-makers as a heuristic for how to trade.

3.1 *The evidence for crowding and herding*

Despite widespread assumptions and perceptions that professional investors herd, the empirical existence of herding has been poorly demonstrated in econometric research because of the absence of trading data containing intentions. “Observations on market transactions and their prices can reveal only so much about the factors determining the choices of market participants” (Bikhchandani and Sharma, 2001, p. 283). Instead, the econometric literature tests for correlated behavior—what I term crowding—by examining individual or aggregate trades in a market to see if clusters of decisions are observed among a sub-population that are unlikely to occur by chance, irrespective of the underlying reasons for the behavior (Bikhchandani and Sharma, 2001, p. 283; Sias, 2004; Hirschleifer and Teoh, 2008, p. 31n32). The observation of crowding may therefore indicate herding or it may be spurious herding. This critique that the literature conflates herding with mere correlated behavior has been acknowledged by some of the studies’ authors (e.g., Welch, 1992; Kim and Wei, 2002; Cipriani and Guarino, 2010) and noted in surveys of the herding literature (e.g., Devenow and Welch, 1996; Bikhchandani *et al.*, 1998; Bikhchandani and Sharma, 2001; Hirschleifer and Teoh, 2008).

While we should be cautious of the econometric evidence of herding by professional investors, there is substantial evidence of crowding. Consider a study by Gang Hu and colleagues (2008), who assembled a dataset of 30 U.S. asset management firms’ daily trades, representing 1730 different funds between October and December of 2001. They found that in 20% of the trading days for the average stock, **every asset management firm in their sample behaved identically**, buying the stock together or selling the stock together, without a single fund dissenting. Even more common (57.5%) is nearly uniform trading in which less than 30% of transactions (as measured by value) were traded against peers in the sample. They observed professional investors in the average stock significantly buying when other professional investors were selling in less than a quarter of trading days (Hu and Meng and Potter, 2008, p. Table 1).

Crowding has also been observed in sociological studies among hedge fund managers (MacKenzie, 2003, 2004), pension funds (Clark, 2000), and proprietary trading desks in investment banks (Beunza

and Stark, 2004). Instead of arguing for the presence or absence of herding, however, these authors have documented a wide array of social forces that shape such homogenous behavior (but see Choi, 2010; Simon and Millo and Kellard and Engel, 2013). For example, professional investors draw on similar academic and applied ideas to interpret the market; they share similar investment conventions shaped by their firm, industry and regulation; they create similar organizational decision-making structures across firms; and much of their information and interpretation of the market is constituted by common public and proprietary socio-technological systems (Abolafia, 1996; Chevalier and Ellison, 1999; Clark, 2000; Blake *et al.*, 2002; Knorr Cetina and Bruegger, 2002a, b; MacKenzie and Millo, 2003; Beunza and Stark, 2004; MacKenzie, 2006; Knorr Cetina and Grimpe, 2008). Therefore, it remains an important empirical question how much (if any) of this crowding is caused by imitation of prior investors' decisions.

3.2 Information asymmetry explanations for herding

The orthodox explanation for herding in the finance literature is that it is driven by information asymmetries. The literature posits two types of traders. "Smart money" trades are rationally motivated by the possession of superior information or interpretation. All other trades are "noise"—conducted for irrational reasons or for rational reasons independent of possessing superior information (Black, 1986; Shleifer, 2000; Harris, 2003). Because all "smart money" trades are informative, it is rational for a trader who encounters such a trade to seek to understand the trade's motivation, and replicate it if they infer that it is smarter. Such an incentive is lacking when one learns of a "noise" trade.

An application of information asymmetry arguments to my interpretivist data would suggest that when informants encounter (or search for and find) competitors with putatively superior information or interpretations ("smart money") they will find it rational to replicate the trade. In contrast, informants will act as the counterparty when they encounter (or search for and find) competitors who trade with inferior information or who trade for reasons other than information ("noise traders"). In both cases, locals should be able to report observing foreigners and performing an implicit calculation—"Do I know more or less than this foreigner?"

3.3 Identity-based explanations for herding

In identity-based herding, investors rationally replicate a competing investor's trade based on the trader's identity. This argument is distinguished from information asymmetry arguments in positing that one may rationally replicate trades of a prior trader *without knowledge of that trader's information*. Two variant literatures make this argument: information cascade and social status herding theory.

Information cascade theory investigates the environmental circumstances under which it would be rational for people to replicate prior decision-makers' actions rather than use information from other sources (Devenow and Welch, 1996; Bikhchandani and Sharma, 2001; Hirschleifer and Teoh, 2008). The paradigmatic example of an information cascade is a prospective customer who observes a full restaurant and an adjacent empty restaurant and chooses to eat in the full restaurant, based on the prior sequential decision-making of earlier customers and potentially discounting information from other sources (e.g., magazine reviews or rumors). Proponents argue that financial markets are ideal information environments for cascades to form (*ibid.*).

I've identified two weaknesses in applying information cascade theory to financial markets that require counterparties.⁴ First, information cascade theory does not explain why an investor who observes a transaction would replicate the trade of an observed trader (e.g., the buyer) and not the unobserved but self-evidently extant counterparty (e.g., the seller). A second weakness is the necessity for someone to provide liquidity to a herd. Why would someone rationally sell to (buy from) an information cascade of buyers (sellers) when one knows that the information cascade will drive the price up (down) further? In the absence of liquidity-providing counterparties, an information cascade cannot form.

Social status herding theory proposes that it may be rational for an investor to strategically choose to replicate observed trades by investors of high status, even without detailed knowledge regarding why they are conducting the trade. Status-based explanations for herding in financial markets resolve both of the weaknesses of information cascade theory. First, it provides a criterion (i.e., status) by which an observer chooses to replicate the behavior of an observed trader rather than their unobserved counterparty. And second, because it is common in social life to find discrepancies between perceived status and actual quality (Lynn *et al.*, 2009), counterparties may be willing to trade against both prestigious traders and their replicators whom they perceive as trading poorly.

There are two distinct rationales for why professional investors may find it rational to replicate the trade of a high status competitor, even in the absence of knowing their competitor's information or intentions. The first rationale is that prestigious traders' investment strategies may be self-fulfillingly successful over a short time horizon, either because of the considerable wealth and power that prestigious financial firms can mobilize to capture rents (Ho, 2009), or because firms with strong international reputations can profit from their competitors mimicking their trades and pushing prices (in the short term) in an advantageous direction (Yoo, 2011). Neomarxist analyses lend additional support for the argument by detailing the considerable wealth, resources, social

networks, and prestige that international financial firms have in the global economy relative to local financial firms headquartered in the countries of the global south (Arrighi, 2005; Ho, 2005, 2009).

The second rationale is compatible with information asymmetry arguments; high status traders may have access to superior resources and social networks, and therefore access to superior information and interpretation (Seasholes, 2004, p. 2; Froot and Ramadorai, 2008, p. 941). Therefore, replicating such trades may be an efficient and effective decision heuristic for lower status traders (Jomo K.S. and Liew San Yee and Kaehler, 2001; Yoo, 2011).

An application of identity-based herding arguments to my interpretivist data suggests that when interviewees reflect on their past and present trading decisions, they should be aware of the presence of prior trades by high status people or firms, and they should be aware that these prior trades influenced their decision to replicate the trade (Bikhchandani and Sharma, 2001, pp. 283-293). So as to most clearly distinguish this behavior from information asymmetry arguments, the strongest evidence would be interviewees who replicate the trade even in the absence of information regarding the competitor's information and intentions.⁵ In contrast, interviewees should choose to act as the counterparty when they encounter (or search for and find) low-status traders, or when the interviewee perceives a discrepancy between the perceived status of the category and the behavior of a more disaggregated identity category. For example, an interviewee may generally herd with foreigners, but act as a counterparty against sub-categories such as London-based firms, or Julian, who they interpret as famously inept.

4. Malaysian professional investors' interpretations of foreign professional investors

The ethnographic interviews revealed that Malaysian financial workers closely watched the market behavior of foreigners. Watching foreigners was incorporated in the locals' morning organizational routines and in their daily interactions with their brokers. The behavior of foreigners also played a significant role in many Malaysians' narratives regarding their day's work.

In this section I divide my informants' heterogeneous and complex narratives regarding foreign professional investors into two parts. First, I examine narratives in which foreigners are interpreted as less informed and less skilled than local investors. Then I examine narratives in which foreigners are interpreted as highly-skilled and potentially well-informed. In each section I compare my findings to the expectations of information asymmetry and identity-based herding theories.

4.1 Foreigners who are interpreted as less informed and skilled

When informants detailed their day's trading and weekly work, I induced that many narratives described foreign professional investors as relatively uninformed and less-skilled traders. Detailed below, these arguments, observations and assumptions took a number of forms. As expected from the information asymmetry and identity-based herding literatures, locals who perceived themselves as holding a superior position vis-à-vis their foreign competitors stood available to act as foreigners' counterparties.

Some informants argued that they have an information advantage over their foreign competitors. Local investors often portray themselves (or are portrayed by their brokers) as "fundamentalists" who seek superior stock market returns by using an in-depth analysis of a corporation's past performance and its market prospects (Smith, 1999). This is an information-intensive investment strategy; locals seek to make a profit by purchasing a stock when they have positive private information, and they sell as soon as they receive private negative information, or they sell prior to the price rising to what they speculate is its intrinsic value. In contrast to themselves, locals argued that foreigners were inferior at performing this information-intensive strategy. Moreover, foreigners' international perspective is perceived as a liability, as is their geographic and chronological distance from the Malaysian stock market. As one portfolio manager succinctly summarized, "In fact, we are better [informed]. We are on the ground. We can do our own field work. We can spend 100% of our time on one market," while foreigners spend less time with more markets. As another portfolio manager advised, "Based on [my experience], the local players shouldn't follow the foreign players too much. After all, it is their local market, they should know better about their market. They shouldn't take the leads from the foreign players."

Informants argued that not only are foreigners at an information disadvantage, but that their investment strategy is unsophisticated relative to locals. They explained that foreigners' only information-intensive decision is what percentage of their portfolio to invest in the Malaysian stock market (their "exposure" or "weight"). For many foreign investors, the decision is anchored by a public benchmark index such as the MSCI Emerging Markets Index. The decision of which securities to purchase (or sell) is subsequently made, not by relying on private information, but by routinely trading the largest and most prominent stock until their exposure is met (Jomo K.S. and Liew San Yee and Kaehler, 2001). One broker, who had specialized in servicing foreign investors earlier in his career, summarized his disdain for their strategy:

Basically foreign funds' exposure in the market is [the largest twenty corporations]. What I see from their shareholding, it is the top twenty only. The foreign funds that come to Malaysia are very

counter-specific. They only look for absolute returns. So if they decide to buy Maybank, then they'll just buy Maybank, and have that exposure to meet their weighting in Malaysia. They are not like locals who probably have 60 to 80 stocks. They have only one or two. I mean, they are not serious investors! They are in, but just for the sake of having exposure in Malaysia!

Another broker, more sympathetically, describes the behavior of his two prime foreign clients:

They both need a weightage in Malaysia, so usually they just buy the big stocks. For example, one of them buys the top three. That's it! If I [were them and] had to look at Malaysia and I had to look at Hong Kong and Thailand, I can't [track] 100 counters. I'd only want to know the top three.

Quantitative studies confirm that foreigners have a preference for holding large firms in Taiwan (Seasholes, 2004; Chen and Wang and Lin, 2008), Japan (Kang and Stulz, 1997), and Sweden (Dahlquist and Robertsson, 2001; Seasholes, 2004, p. 22). In sum, these informants report that observing foreigners' trading decisions is uninformative because (1) there is no information revealed in what corporations such foreigners buy, since they are only buying the largest and most liquid corporations to meet their exposure, and (2) the decision of how much to be exposed to the Malaysian stock market is irrelevant for local professional investors, who by law or their mandate have limited opportunities to invest overseas. Foreign professional investors are perceived as noise traders.

In addition, locals argue that foreigners buy and sell primarily in response to previous changes in stock prices, not information about the companies themselves. As a consequence, foreigners buy after observed prices rise and sell after observed prices drop. Numerous brokers recount similar narratives that argue that foreigners don't begin purchasing a stock until the price has already risen quite high, often above the value that locals perceive as its intrinsic value. For example,

Foreigners don't buy until AFTER the price has moved. They don't buy when the price is lowest. They buy when it is really up. For example, MPI was at four ringgit. The recommendation was at eight ringgit. It went up to fifteen ringgit. From four to eight there was no volume anyways. From eight ringgit there was volume. [Locals] who bought at four sold at eight or nine {to foreigners}.

Here too, informants are arguing that foreigners are uninformed noise traders.

These nuanced and complex accounts by locals of why they perceive foreign investors as unsophisticated traders is strikingly similar to parsimonious behavioral patterns found in the econometric literature, variously termed "momentum trading," "positive feedback trading" or "trend following." This class of strategies proscribes that one purchase "glamour" stocks that are

raising in price, and sell “loser” stocks that are falling in price (De Bondt and Thaler, 1989; Nofsinger and Sias, 1999).

Momentum trading is a potential cause for the crowding documented in the econometric literature, particularly foreign professional investors in emerging stock markets. Consonant with my informants, Brennan and Cao (1997) made a theoretical model that posited that foreign investors pursue such a trading strategy because they are less well-informed than domestic investors. In an empirical study, the authors found that foreigners were more likely to practice this strategy than locals in 16 emerging markets (including Malaysia). Later econometric studies have found evidence for momentum trading among non-resident foreign investors in the Korean market (Kim and Wei, 2002), foreign investors in Taiwan (Seasholes, 2004; Chen and Wang and Lin, 2008), and foreign mutual funds in Latin American markets (Kaminsky *et al.*, 2004). In a high quality dataset of daily trades between foreigners and locals in 44 countries between 1994 and 1998, Froot, O’Connell and Seasholes (2001) confirmed that foreigners are momentum traders.⁶ Momentum trading has also been observed by foreign professional traders investing in the U.S. (Lin and Swanson, 2008). Studies in other markets, time periods, and methodologies have found a similar reliance by foreign investors on momentum trading; only rare studies find locals to be momentum traders with foreigners as their counterparties (see Brennan and Cao and Strong and Xu, 2005, p. 259).

In my informants’ narratives, consistent with the perception that foreigners are uninformed and less skilled, local investors pursue contrarian trading strategies to take advantage of foreigners’ uninformed trades. As one broker explained,

[Foreigners] are always late in the game. By the time [the foreigner] thinks that Malaysia is actually investable, we’ve probably run another hundred points. So we always laugh—when the big foreign fund managers get back in, the locals get out.

Another explains,

When foreigners sell, that’s the best time to buy. [Foreigners] buy only when the market is going up, and they push the price way up. And they sell all the way down. They do all the wrong things. They are willing to sell all the way down to owning nothing in the Malaysian stock market.

In summary, informants drew on a number of observations, assumptions and arguments to interpret foreign portfolio managers as poorly-informed relative to local investors and that, as a consequence, foreigners are argued to be noise traders using unsophisticated investment strategies. While local portfolio managers closely watch foreigners’ trades, the purpose is not to discover valuable private information, but rather to take advantage of an uninformed and unsophisticated trader by selling a

stock at a temporarily high price to a gullible buyer, or to buy a stock from a hasty foreigner. In these narratives, locals are prospective counterparties willing to trade against foreign investors (i.e., to offer liquidity), thereby directly contributing to foreigners' capacity to herd. As detailed in the next section, this perspective of foreigners was not found in all work narratives.

In spite of these informants' low opinion of their foreign competitors, it is noteworthy that many local professional investors do not interpret foreigners as herding. Rather, these locals infer that foreigners are rational in their use of momentum and index-like trading strategies to overcome their inferior position in the information landscape. As a consequence, in the view of these informants, foreigners are enacting non-herd crowding.⁷

4.2 Foreigners who are interpreted as highly-skilled and potentially well-informed

When Malaysian financial workers described their trading on the day of the interview or their weekly work practices, their narratives frequently included observations, arguments, and assumptions that specific foreigners (or foreigners in general) were highly-skilled and potentially well-informed. The information asymmetry and identity-based herding literatures suggest that when local professional investors are aware of a well-informed or a prestigious foreigner's trade, they should find it rational to replicate that trade. As one fund manager explained, "you are competing with the global fund manager, so you have to think, you have to act like them." Below I induce why local professional investors perceive their foreign competitors as possessing equal or superior information to themselves. However, in contrast to the information asymmetry and identity-based herding literatures, I find little evidence that these locals seek to replicate foreigners' trades because they perceive foreigners' strategic motivations for individual trades as incommensurable to their own. For these locals, this very dissimilarity makes foreigners a potentially attractive counterparty.

There is a widespread belief across informants that local financial workers are poorly trained relative to foreign financial workers. Informants argued that there were few training opportunities in Malaysia for portfolio managers and market analysts, with the partial exception of short workshops. This argument was most vividly made by informants with overseas training. For example, a portfolio manager explained that:

We are fortunate that me and my other team members were given the opportunity to spend a good year abroad. That for me is proper training. You can't just go to a seminar for one or two weeks and believe that you've learned all the tricks of the [foreign] funds manager. There's no such thing as

proper training for a funds manager in Malaysia.... Singapore, Hong Kong, yeah, it's more advanced there. Better than Malaysia.

The perceived training deficit is accentuated by a perceived experience deficit. As often noted in the international news media, the finance industry is pro-cyclical, meaning that financial firms hire when the market rises, and lay off employees when the market falls (but see Ho, 2009). In the volatile Malaysian financial market, this has resulted in a widely observed binomial distribution of experience. The Association of Chartered Certified Accountants (2013, p. 11) notes that such “hollowing out” of the finance industry workforce is particularly common in emerging financial centers such as Malaysia and India. Several informants interpreted foreigners as having more experience, and therefore as more capable of interpreting information. For example, a broker explained:

In foreign firms—people in Hong Kong and other branches—have more experience. They could look at my research and think, ‘Is this margin for real? Is this company really going to make 30% over the next few years? That doesn’t look right.’ So the [quality] is off-shore.

A few informants referred to a sub-set of foreign investors, sometimes called “country specialists” or “emerging market fund managers” who only invest in Malaysia, or perhaps one or two other foreign markets. These foreign investors are often perceived as particularly knowledgeable traders. For example, a broker who serviced foreign and local portfolio managers explained:

*[Country specialists] are more discerning. Those are like my 25-years-of-experience fund manager who has seen Malaysia through hell and high-water, and he knows **exactly** how Malaysia behaves... They are more knowledgeable...They ask more probing questions. They know the intricacies of [Malaysia’s racial politics]...and wayang kulit {the shadow play, a reference similar to ‘who really pulls the strings’}.*

Some narratives by financial workers revealed that they interpreted foreign professional investors as having superior knowledge because of their international perspective. Numerous informants interpreted foreigners as ever-comparing the Malaysian market relative to other markets; in contrast, locals only compared the local stock market to historical trends or the few domestic alternative investments available (i.e., Malaysian real estate and the Malaysian bond market). This international perspective is understood to give foreigners an advantage of interpretation and creativity, or in the words of one broker who serviced foreign investors, it engenders a unique “work culture.” For example, one broker explained why she liked to service foreign portfolio managers:

Fund managers in foreign houses are exposed to a lot of things. They don't look at one angle, they look at several angles. Same topic, but they look at different angles. If you can look at a certain situation in a different way, you will win points. So it's good to talk with foreign funds. Most of them have been longer in the industry than most [Malaysians]. And they are exposed to analysts from different countries, and these analysts have different ways of looking at things.

An almost tautological variation of this argument is that foreigners have superior information because they are able to observe the behavior of other foreigners in other markets:

Foreign firms have the advantage of being able to detect foreign activities or foreign movements as well as liquidity. They may be able to read the signals ahead [of locals because] they invest in different markets.

This type of argument was particularly common when informants discussed investors based in the United States because, in the words of one portfolio manager, “in the short-term, anything that happens in the U.S. will definitely happen in Malaysia.”

Some brokers who service foreign firms view foreigners' geographic and chronological distance from the Malaysian market as a liability. To overcome the information disadvantages of distance, Malaysian brokers report that foreigners are more demanding than local clients of receiving high quality service, and as a consequence, they receive it. Foreigners need detailed information and superior execution in order to compete on a level playing field with local portfolio managers. These ideas are well illustrated by a Malaysian broker recounting her work as a market analyst providing information to foreign firms:

[When I was a research analyst,] we talked to brokers based in Singapore, Hong Kong and the UK...They are very, very tough. They don't ask you questions just to irritate you or put you down. But they ask very tough questions because they want to make sure that whatever stocks they sell to the client has the fundamentals and not just something that came from the air. It has to be thoroughly researched. Because you must remember that fund managers overseas are very far away from our market. Anything that happens, they might be the last ones to sell. Because they are so far away from the market that they invest in, the broker must be very well versed with the company that they are recommending. They must!

Alternatively, other informants perceived foreign portfolio managers, despite their distance, as having neither an information advantage nor disadvantage relative to locals. This view took the form of three non-exclusive arguments. First, informants mentioned that foreigners have access to the same technologies—the telephone and electronic news services—as local portfolio managers,

and therefore access to the same information. Second, informants argued that corporate governance regulations in Malaysia are sufficiently strong so that all portfolio managers—whether local or foreign—receive information simultaneously. Lastly, focusing on the interpersonal ties between foreign asset management firms and local brokerage firms, portfolio managers and brokers argued that the portfolio managers that received information first were the firms with the largest accounts. These informants argued that all foreign firms are large, and therefore receive excellent service, but that the large local asset management firms are on an equal footing with the foreigners.

Although there is heterogeneity in the above accounts, they share an interpretation of foreigners as being at least as well-informed as local investors, or as having superior information, experience, or education. Malaysians with this perspective watch foreigners because foreigners are perceived as savvy and well-informed, and therefore their prior trades are potentially informative. As one such portfolio manager summarized, “we view foreigners as a leading indicator,” when foreigners buy, the price is anticipated to rise, and when foreigners sell, the price is expected to fall. Supporting this perspective, in an analysis of trading in 44 countries, Froot, O’Connell and Seasholes (2001) found foreigners to be a “leading indicator” in exactly this sense.

The information asymmetry literature predicts that when local investors encounter such well-informed or highly skilled trades that it would be rational to replicate them. The identity-based herding literature predicts that it would be rational for locals to replicate the trades of high-status, powerful foreigners whom they encounter, even in the absence of strong inferences regarding the foreigner’s information and strategy.

In contrast to the expectations of both literatures, locals did not replicate the trades of foreigners who were perceived as well-informed or of high status. It is a striking finding that in all 40 semi-structured interviews with investors and brokers regarding their work that day, as well as in trades made earlier in the week, in no case did they observe a foreigner’s trade and replicate it. This finding is reinforced by the observation that none of the interviewees describe a formal or informal organizational norm, or even a personal cognitive heuristic, in which they replicated the earlier trades of foreign investors. Instead, locals often chose to act as the foreigner’s counterparty.

In each narrative, informants have their own transaction-specific explanation for why they do not replicate the trade of a well-informed or prestigious foreign competitor. A common causal thread underlying these diverse accounts is that in these particular circumstances, Malaysian portfolio managers perceive their strategic motivations as sufficiently dissimilar to the foreign investor as to preclude replication. These informants drew on a large set of distinctions between themselves and

their foreign competitors. One distinction is imperfectly overlapping choice sets. For example, the list of stock that foreigners are able and willing to trade in Malaysia is considerably smaller and more homogenous than the lists of locals. In this case, although the local can trade the same stock as the foreigner, the foreigner's strategy is perceived as incommensurable because the two parties' choice sets are not wholly coterminous. This is a curiously restrictive precondition for social learning. Conversely, many Malaysian professional investors are constrained by regulations and mandates to invest solely or primarily in the Malaysian market; foreigners may therefore disinvest from a company in Malaysia in order to invest in an overseas opportunity that is unavailable to Malaysian professional investors. In this second case, the choice sets overlap significantly—both parties could disinvest in the Malaysian corporation, thereby permitting replication—but the strategic motivation of the foreigner is perceived as incommensurable because the local investor is unable or less willing to complete the other leg of the trade and invest overseas.

A second set of distinctions refer to interpretations of benchmarks. For example, consider narratives in which a foreigners' trade is motivated by a change in the exchange rate. Foreigners are often interpreted as investing or disinvesting as a consequence of how the exchange rate movement alters the value of their Malaysian assets relative to their benchmark currency. Locals, too, closely observe exchange rates, but generally with an incommensurable motivation—they are interested in how movements in exchange rates alter the short-term and medium-term economic prospects of listed corporations. Another example is that the clients of foreigners and locals are perceived as using different performance benchmarks and currencies with which to appraise their portfolio managers, and therefore the criteria for a successful trade may literally be different for foreigners and locals.

In contrast to the information asymmetry literature, observing a trade with superior information or superior skills in interpreting information is insufficient for a professional investor to choose to replicate the trade. And in contrast to the identity-based herding literature, observing prestigious investors making a trade is similarly insufficient motivation for herding. It appears that for Investor A to consider replicating Investor B's trade requires not only the perception that Investor B is better informed or more prestigious, but also the perception that Investor B's strategic motivation is commensurable to Investor A (c.f. Espeland and Stevens, 1998). In contrast to expectations raised by the existing theories of herding, in Malaysia this requirement of perception appears to be seldom achieved. Such incommensurable strategies is unexpected; after all, local investors can (and do) trade all of the same companies that foreigners can in the Malaysian stock market, and can (and do) compete for some of the same clients. The implications of these findings are discussed below.

5.0 Discussion and conclusion

By problematizing liquidity, this article provides a new way of looking at the old problem of herding in the global south. And, by analyzing professional investors' causal narratives, it can empirically distinguish herding from the pervasive crowding observed in the literature. This article asks: Why do local professional investors choose to strategically imitate the trades of foreign investors (i.e., to herd and take liquidity), or choose to strategically trade as a counterparty for the next such trade (i.e., to provide liquidity and thereby enable a crowd). Explaining why professional investors imitate enhances our understanding of herding; explaining why they trade against competitors enhances our understanding of how counterparties enable herds by generating liquidity. Both tasks remain necessary for interpreting the systematic crowding observed in the econometric literature.

With respect to the decision to act as a counterparty, I confirm the importance of information asymmetries; local professional investors are willing to act as counterparties to their foreign competitors when they believe that they possess an information advantage. However, in contrast to this literature, as well as in contrast to the identity-based herding literature, I find that locals are also willing to trade against well-informed and prestigious traders. Locals are willing to be counterparties to foreign investors whom they perceive as savvy, highly skilled, or informed, so long as they perceive the foreign competitor's trade as motivated by an incommensurable strategy. Apparently counterparties are attracted to trading not only with those whom they perceive as less-informed but also those whom they perceive as having saliently dissimilar strategies.

For scholars interested in how social systems produce liquidity (Carruthers and Stinchcombe, 1999; Carruthers, 2010; MacKenzie *et al.*, 2012), this suggests that one significant contribution to a market's liquidity may be a market with heterogeneous participants with respect to strategic intentions for trading. Additionally, markets may be more liquid when participants have heterogeneous information sets (i.e., having heterogeneous views of what information is salient and heterogeneous interpretations of public information). Conversely, one cause of illiquidity may be when market participants' strategic intention sets or information sets become more homogenous, and/or when traders with heterogeneous strategy or information sets increasingly avoid trading. In consumer markets, these hypotheses may be trivial, but this is not the case in business-to-business markets where buyers' and sellers' choice and information sets can be rather similar to one another (as is the case in this article's capital market).

With respect to herding, my informants, on the day of the interview as well as in earlier trades that week, did not replicate the trades of their foreign competitors. None of my informants who observed trades by a foreign individual, foreign firm, or crowd of foreigners, strategically chose to

replicate the trade. This finding is reinforced by the observation that none of the interviewees describe a formal or informal organizational norm, or even a personal cognitive heuristic, in which they replicate the earlier trades of foreign investors. This suggests that little of the extensive crowding observed in global capital markets originates from herding, at least among local professional investors observing global competitors.

This is contrary to the expectations of the identity-based herding literature. The inferred information and motivation of the prior trader was always a consideration when observing their competitors. A partial qualification is that many informants reported joining such herds in the past during extraordinary asset bubbles (what some informants called “super bull runs”)—however, identity-based herding theory is intended to apply to normal times, not merely times of irrational exuberance. If identity-based herding exists in the Malaysian stock market, it appears to be surprisingly rare relative to the predictions of the theory’s proponents.

My findings are also contrary to the expectations of information asymmetry herding theory. Why don’t locals replicate the trades of foreign “smart money” whom they perceive, for that particular trade, as at an information or skill advantage? Many of my informants described their encounters with such foreign traders, and yet they failed to replicate their trades. Without observing locals imitating foreigners, I am poorly positioned to explain under what circumstances they might have done so. However, informants shared a large set of explanations for why they do not herd when learning of these kind of trades. The common underlying logic of these diverse, context-specific explanations is that investors are unwilling to herd with foreigners when the foreigners are perceived as having incommensurable strategies to their own. This is an unexpected social fact that potentially illustrates the social and cognitive challenges of creating commensuration—a necessary prerequisite for creating a single market (Espeland and Stevens, 1998; Carruthers and Stinchcombe, 1999).

The absence of boundedly-rational herding by Malaysians on the heels of their foreign competitors suggests much about the social structure of global capital flows. Although locals watch foreigners closely, these small, local finance firms find few reasons to imitate their powerful international competitors. Despite trading the same stock in the Malaysian stock market and often competing for the same clients, local professional investors appear to perceive foreign investors as trading with surprisingly incommensurable strategies. This article concludes that although crowding appears to be pervasive in international capital markets, we should be wary of attributing this to herding.

To understand crowding, a more fertile line of inquiry is to focus on non-herding explanations for why investors employed in different firms nevertheless make similar trading decisions. For example, professional investors are organizationally embedded in decision-making teams, influenced by their bank's "house view," and additionally subject to the discipline of their supervisors and the bank's risk departments. Such organizational structures are replicated throughout the industry. Similarly, much of investors' information and interpretations are acquired from public and proprietary socio-technological systems that are also used by their competitors. Moreover, career processes such as credentialing and professionalization encourage professional investors, regardless of which firm they are employed in, to apply a similar set of academic and applied ideas to interpret the market. These practices concatenate into shared investment conventions that are often reinforced by firm policies, industry self-regulation, and national securities legislation. In short, the considerable isomorphism of decision-making structures across firms provide numerous explanations for non-herd crowding (e.g., DiMaggio and Powell, 1983; Abolafia, 1996; Chevalier and Ellison, 1999; Clark, 2000; Blake and Lehmann and Timmermann, 2002; Knorr Cetina and Bruegger, 2002a, b; MacKenzie and Millo, 2003; Beunza and Stark, 2004; MacKenzie, 2006; Knorr Cetina and Grimpe, 2008). I remain agnostic with regard to whether *foreign* investors herd, or whether this is merely momentum trading and other forms of non-herd crowding, as hypothesized by some of my Malaysian informants.

Important questions remain to be answered. Do foreign investors herd—and if so, who are they watching, and why do they do it? How can firms discourage non-herd forms of crowding? Beunza and Stark (2004) provide one strategy used by financial firms; there are likely many more in use given the pervasiveness of crowding. Finally, is non-herd crowding a greater problem in the global south—and if so, what if anything should regulators do to disincentivize it?

One potential line of research would be to investigate subrational and irrational causes of herding. It is empirically possible that my informants were unconsciously imitating foreigners without being aware of this influence. Although I am presently skeptical that such mechanisms are important for understanding herding by professional investors in normal, illiquid times (Pitluck, 2011, pp. 48-49), this remains a potentially fertile line of inquiry, particularly among non-professional investors (Pollner, 2002), semi-professional investors (Preda, 2013), or in time-constraining periods of crisis (e.g., Griffith-Jones, 1998; Kim and Wei, 2002; Borensztein and Gelos, 2003; MacKenzie, 2003; Kaminsky and Lyons and Schmukler, 2004).

For analysts and policy-makers, this article's "liquidity perspective" on herding suggests that crowding (both herding and non-herding correlated behavior) is a difficult-to-achieve social accomplishment due to the absence of sufficient counterparties. This perspective suggests that

improving market liquidity may generate more crowding. It also suggests that regulations to shift incentives of local professional investors may be as effective to dampen foreign capital flow volatility as capital controls focused on foreign investors. I suspect that Malaysian policy makers are tacitly aware of this; the well-known September 1998-99 capital controls imposed stricter constraints on domestic investors than foreign investors (Jomo, 2001, 2005). This is a potentially useful finding for governments who find it politically easier to impose capital controls on domestic investors rather than foreign investors.

Methodologically, this article has attempted to demonstrate to economic sociologists a rapprochement between econometrics and ethnography. Ethnographies of economic phenomena are inherently limited in their external validity to other times and other markets. As I've attempted above, ethnographers can demonstrate the scope of portions of their findings when there is an existing econometric literature. Similarly, ethnographers can contribute to econometric debates by generating and analyzing information unavailable in economic statistics. For example, in order to infer interpretations and intentions by observing prices and outcomes alone, econometric research must often make parsimonious and pragmatic assumptions. By systematically speaking with people, ethnographic research can generate complex causal narratives that can confirm—or, as this article does, fail to confirm—the assumptions and causal arguments embedded in econometric models.

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References

- Abolafia, M. Y. (1996) *Making Markets: Opportunism and Restraint on Wall Street*, Cambridge, Mass., Harvard University Press.
- Adler, P. A. and Adler, P. (1984) 'The Market as Collective Behavior'. In Adler, P. A. and Adler, P. (eds) *The Social Dynamics of Financial Markets*, Greenwich, Conn., JAI Press, pp. 85-105.
- Arrighi, G. (2005) 'Hegemony Unravelling - 2', *New Left Review*, **33**, 83-116.
- Association of Chartered Certified Accountants [ACCA] (2013) *Accountants for Business: The Future of Finance Talent*, London, ACCA.
- Beunza, D. and Stark, D. (2004) 'Tools of the Trade: The Socio-Technology of Arbitrage in a Wall Street Trading Room', *Industrial and Corporate Change*, **13**, 369-400.
- Bikhchandani, S., Hirschleifer, D. and Welch, I. (1998) 'Learning from the Behavior of Others: Conformity, Fads and Information Cascades', *Journal of Economic Perspectives*, **12**, 151-170.
- Bikhchandani, S. and Sharma, S. (2001) 'Herd Behavior in Financial Markets', *IMF Staff Papers*, **47**, 279-310.
- Black, F. (1986) 'Noise', *The Journal of Finance*, **41**, 529-543.
- Blake, D., Lehmann, B. N. and Timmermann, A. (2002) 'Performance Clustering and Incentives in the Uk Pension Fund Industry', *Journal of Asset Management*, **3**, 173-194.
- Borch, C. (2007) 'Crowds and Economic Life: Bringing an Old Figure Back In', *Economy and Society*, **36**, 549-573.
- Borensztein, E. and Gelos, R. G. (2003) 'A Panic Prone Pack? The Behavior of Emerging Market Mutual Funds', *IMF Staff Papers*, **50**, 43-63.
- Brennan, M. J. and Cao, H. H. (1997) 'International Portfolio Investment Flows', *Journal of Finance*, **52**, 1851-1880.
- Brennan, M. J., Cao, H. H., Strong, N. and Xu, X. (2005) 'The Dynamics of International Equity Market Expectations', *Journal of Financial Economics*, **77**, 257-288.
- Bursa Malaysia (2013) *Trade Statistics: Local Vs. Foreign*, Kuala Lumpur, Malaysia, Bursa Malaysia [Malaysian Stock Exchange].
- Carruthers, B. G. (2010) 'Knowledge and Liquidity: Institutional and Cognitive Foundations of the Subprime Crisis'. In Lounsbury, M. and Hirsch, P. M. (eds) *Markets on Trial: The Economic Sociology of the U.S. Financial Crisis*, Bingley, UK, Emerald Group Publishing, pp. 157-182.
- Carruthers, B. G. and Stinchcombe, A. L. (1999) 'The Social Structure of Liquidity: Flexibility, Markets, and States', *Theory and Society*, **28**, 353-382.
- Chen, Y.-F., Wang, C.-Y. and Lin, F.-L. (2008) 'Do Qualified Foreign Institutional Investors Herd in Taiwan's Securities Market?', *Emerging Markets, Finance & Trade*, **44**, 62-74.
- Chevalier, J. and Ellison, G. (1999) 'Career Concerns of Mutual Fund Managers', *The Quarterly Journal of Economics*, **114**, 389-432.

- Chin Kok Fay and Jomo K. S. (2000) 'Financial Sector Rents in Malaysia'. In Khan, M. H. and Jomo K.S. (eds) *Rents, Rent-Seeking and Economic Development: Theory and Evidence in Asia*, Cambridge, Cambridge University Press, pp. 304-326.
- Chin Kok Fay and Jomo K.S. (eds) (2001) *Financial Liberalisation and System Vulnerability*, London and New York, Zed Books, Ltd.
- Choi, Joon Nak. 2010. 'Clannishness, Gossip and the Paradox of Imitation: Hedge Fund Sociality and Investment Returns.' Presented at the Academy of Management Annual Meeting Regular Session on Sociological Perspectives on the Financial Industry, 9 August 2010 through 10 August 2010, Montreal.
- Cipriani, M. and Guarino, A. (2010) 'Estimating a Structural Model of Herd Behavior in Financial Markets', *IMF Working Paper*.
- Clark, G. L. (2000) *Pension Fund Capitalism*, Oxford Geographical and Environmental Studies. Oxford and New York, Oxford University Press.
- Dahlquist, M. and Robertsson, G. (2001) 'Direct Foreign Ownership, Institutional Investors, and Firm Characteristics', *Journal of Financial Economics*, **59**, 413-440.
- De Bondt, W. F. M. and Thaler, R. H. (1989) 'Anomalies: A Mean-Reverting Walk Down Wall Street', *Journal of Economic Perspectives*, **3**, 189-202.
- Devenow, A. and Welch, I. (1996) 'Rational Herding in Financial Economics', *European Economic Review*, **40**, 603-15.
- DiMaggio, P. and Powell, W. W. (1983) 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields', *American Sociological Review*, **48**, 147-160.
- Espeland, W. N. and Stevens, M. L. (1998) 'Commensuration as a Social Process', *Annual Review of Sociology*, **24**, 313-343.
- Froot, K. A., O'Connell, P. G. J. and Seasholes, M. S. (2001) 'The Portfolio Flows of International Investors', *Journal of Financial Economics*, **59**, 151-193.
- Froot, K. A. and Ramadorai, T. (2008) 'Institutional Portfolio Flows and International Investments', *Review of Financial Studies*, **21**, 937-971.
- Griffith-Jones, S. (1998) *Global Capital Flows: Should They Be Regulated?*, New York: St. Martin's Press; London: Macmillan Press.
- Grinblatt, M. and Keloharju, M. (2000) 'The Investment Behavior and Performance of Various Investor Types: A Study of Finland's Unique Data Set', *Journal of Financial Economics*, **55**, 43-67.
- Harris, L. (2003) *Trading and Exchanges : Market Microstructure for Practitioners*, Oxford and New York, Oxford University Press.
- Hirschleifer, D. and Teoh, S. H. (2008) 'Thought and Behavior Contagion in Capital Markets', *Munich Personal RePEc Archive*, (9167), accessed at <http://mpra.ub.uni-muenchen.de/9167/> on June 17, 2008.
- Ho, K. (2005) 'Situating Global Capitalisms: A View from Wall Street Investment Banks', *Cultural Anthropology*, **20**, 68-96.
- Ho, K. (2009) *Liquidated: An Ethnography of Wall Street*, Durham and London, Duke University Press.
- Hu, G., Meng, J. G. and Potter, M. E. (2008) 'Opinion Divergence among Professional Investment Managers', *Journal of Business Finance & Accounting*, **35**, 679-703.

- International Monetary Fund (2013) *Malaysia: Financial Sector Assessment Program Documentation-Detailed Assessment of Implementation of Iosco Objectives and Principles of Securities Regulation (Imf Country Report No. 13/59)*, Washington, DC, International Monetary Fund (Monetary and Capital Markets Department) and The World Bank (Financial and Private Sector Development Vice-Presidency; East Asia and Pacific Region Vice-Presidency).
- Jomo K.S., Liew San Yee and Kaehler, L. (2001) 'Capital Flows Volatility'. In K.S., J. (ed) *Malaysian Eclipse: Economic Crisis and Recovery*, London and New York, Zed Books, Ltd., pp. 174-198.
- Jomo, K. S. (2001) *Malaysian Eclipse : Economic Crisis and Recovery*, London ; New York, Zed.
- Jomo, K. S. (2005) 'Malaysia's September 1998 Controls: Background, Context, Impacts, Comparisons, Implications, Lessons', *G-24 Discussion Paper Series*.
- Kaminsky, G., Lyons, R. K. and Schmukler, S. L. (2004) 'Managers, Investors, and Crises: Mutual Fund Strategies in Emerging Markets', *Journal of International Economics*, **64**, 113-134.
- Kang, J.-K. and Stulz, R. (1997) 'Why Is There Home Bias? An Analysis of Foreign Portfolio Equity Ownership in Japan', *Journal of Financial Economics*, **46**, 3-28.
- Karen, K. L. (1999) 'Trying to Explain Home Bias in Equities and Consumption', *Journal of Economic Literature*, **37**, 571-608.
- Kim, W. and Wei, S.-J. (2002) 'Foreign Portfolio Investors before and During a Crisis', *Journal of International Economics*, **56**, 77-96.
- Klausner, M. (1984) 'Sociological Theory and the Behavior of Financial Markets'. In Adler, P. A. and Adler, P. (eds) *The Social Dynamics of Financial Markets*, Greenwich, Conn., JAI Press, pp. 57-81.
- Knorr Cetina, K. and Bruegger, U. (2002a) 'Global Microstructures: The Virtual Societies of Financial Markets', *American Journal of Sociology*, **107**, 905-950.
- Knorr Cetina, K. and Bruegger, U. (2002b) 'Traders' Engagement with Markets: A Postsocial Relationship', *Theory, Culture & Society*, **19**, 161-185.
- Knorr Cetina, K. and Bruegger, U. (2004) 'Global Microstructures: The Interaction Practices of Financial Markets'. In *The Sociology of the Economy*, New York, Russell Sage Foundation, pp. 157-190.
- Knorr Cetina, K. and Grimpe, B. (2008) 'Global Financial Technologies: Scoping Systems That Raise the World'. In Pinch, T. J. and Swedberg, R. (eds) *Living in a Material World : Economic Sociology Meets Science and Technology Studies*, Cambridge, Mass., MIT Press, pp. 161-189.
- Lin, A. Y. and Swanson, P. E. (2008) 'Foreigners' Perceptions of Us Markets: Do Foreigners Exhibit Herding Tendencies?', *Journal of Economics and Business*, **60**, 179-203.
- Lynn, Freda B., Podolny, Joel M. and Tao, L. (2009) 'A Sociological (De)Construction of the Relationship between Status and Quality', *American Journal of Sociology*, **115**, 755-804.
- Mackenzie, D. (2003) 'Long-Term Capital Management and the Sociology of Arbitrage', *Economy and Society*, **32**, 349-380.
- Mackenzie, D. (2004) 'Social Connectivities in Global Financial Markets', *Environment and Planning D: Society and Space*, **22**, 83-101.
- Mackenzie, D. (2006) *An Engine, Not a Camera : How Financial Models Shape Markets*, Cambridge, Mass., MIT Press.

- Mackenzie, D., Beunza, D., Millo, Y. and Pardo-Guerra, J. P. (2012) 'Drilling through the Allegheny Mountains: Liquidity, Materiality and High-Frequency Trading', *Journal of Cultural Economy*, **5**, 279-296.
- Mackenzie, D. and Millo, Y. (2003) 'Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange', *American Journal of Sociology*, **109**, 107-145.
- Maxfield, S. (1998) 'Understanding the Political Implications of Financial Internationalization in Emerging Market Countries', *World Development*, **26**, 1201-1219.
- Nofsinger, J. R. and Sias, R. W. (1999) 'Herding and Feedback Trading by Institutional and Individual Investors', *Journal of Finance*, **54**, 2263-2295.
- Pitluck, A. Z. (2011) 'Distributed Execution in Illiquid Times: An Alternative Explanation of Trading in Financial Markets', *Economy and Society*, **40**, 26-55.
- Pitluck, A. Z. (2012) 'The Silence of Finance and Its Critics: Portfolio Investors in the World-System'. In Babones, S. and Chase-Dunn, C. (eds) *Routledge International Handbook of World-Systems Analysis*, London and New York, Routledge, pp. 206-214.
- Pollner, M. (2002) 'Inside the Bubble: Communion, Cognition, and Deep Play at the Intersection of Wall Street and Cyberspace'. In Woolgar, S. (ed) *Virtual Society? Technology, Cyberbole, Reality*, Oxford, Oxford University Press, pp. 230-246.
- Preda, A. (2013) 'Tags, Transaction Types and Communication in Online Anonymous Markets', *Socio-Economic Review*, **11**, 31-56.
- Seasholes, M. S. (2004) *Re-Examining Information Asymmetries in Emerging Stock Markets*, Berkeley, University of California (Unpublished manuscript).
- Shleifer, A. (2000) *Inefficient Markets : An Introduction to Behavioral Finance*, Oxford ; New York, Oxford University Press.
- Sias, R. W. (2004) 'Institutional Herding', *Review of Financial Studies*, **17**, 165-206.
- Simon, J., Millo, Y., Kellard, N. and Engel, O. (2013) *Dangerous Connections: Hedge Funds, Brokers and the Construction of a Market Crisis*, Navarra, Spain, IESE Business School (Unpublished manuscript).
- Smith, C. W. (1999) *Success and Survival on Wall Street: Understanding the Mind of the Market*, Lanham, MD, Rowman & Littlefield.
- Spradley, J. P. (1979) *The Ethnographic Interview*, Fort Worth, Fla., Harcourt Brace Jovanovich College Pub.
- Stäheli, U. (2006) 'Market Crowds'. In Schnapp, J. T. and Tiewes, M. (eds) *Crowds*, Stanford, CA, Stanford University Press, pp. 271-287.
- Strauss, A. L. and Corbin, J. M. (1990) *Basics of Qualitative Research : Grounded Theory Procedures and Techniques*, Newbury Park, Calif., Sage Publications.
- Welch, I. (1992) 'Sequential Sales, Learning, and Cascades', *Journal of Finance*, **47**, 695-732.
- Wong Sau Ngan and Shanthi Kandiah (2008) 'Financial Sector Legal Developments'. In Jomo K. S. and Wong Sau Ngan (eds) *Law, Institutions, and Malaysian Economic Development*, Singapore, NUS Press, pp. 80-128.
- World Bank (2008) *Global Development Finance*, Washington, DC, World Bank.
- Yoo, J. (2011) 'Asymmetric Information or Asymmetric Reputation? A Theory on Why Foreigners Earn So Much in a Small Open Emerging Market', *Asia-Pacific Journal of Financial Studies*, **40**, 377-402.

¹ Early sociological work on herding in financial markets emphasized subrational explanations for herding, such as crowd theory (Stäheli, 2006; Borch, 2007) and a number of social psychological theories such as emotional contagion, theories of mass crazes and panics, converging personality theory, and cognitive dissonance theory (Adler and Adler, 1984; Klausner, 1984). This article, like the contemporary literature, investigates boundedly-rational explanations for herding. I set aside subrational explanations because these phenomena were not present in my data; however, this may be a methodological artifact. The implications are explored in the conclusion.

² The ten “capital catcher” countries are Brazil, China, India, Indonesia, Malaysia, the Philippines, the Russian Federation, South Africa, Turkey, and Thailand (World Bank, 2008, p. Table 2.11). The remaining ten “investable emerging markets” are Argentina, Chile, the Czech Republic, Egypt, Hungary, Israel, Korea, Taiwan, Peru, and Poland (p. Annex 2A).

³ Earlier research (e.g., Jomo K.S. and Liew San Yee and Kaehler, 2001; also see Yoo, 2011), as well as an early interview with a Malaysian financial economist, had generated my initial hypothesis that foreign investors are “leaders” in the market and that locals “follow.” Subsequent interviews—and this article—provide evidence contrary to this early hypothesis.

⁴ The intuition for both weaknesses is that in contrast to the paradigmatic restaurant where customers are always patrons and never waiters or cooks, in financial markets traders strategically choose to be a buyer or seller.

⁵ When interviewees replicate a more prestigious competitor’s trade and have an inference regarding the competitor’s information and intentions, the interviewee’s behavior may be supporting information asymmetry theory, social status herding theory, or both.

⁶ Note that Froot, O’Connell and Seasholes (2001, pp. 181-4) do not interpret their findings as indicating that foreigners are at an information disadvantage to locals. Nevertheless, this is one plausible interpretation, and others have cited their finding that foreigners rely on momentum trading as evidence of foreigners’ relative information disadvantage (e.g., Brennan *et al.*, 2005).

⁷ I argue that momentum trading and other price-following strategies should not be classified as herding. This article’s definition of herding is rather conventional and intuitive: herding requires watching competitors and imitating their prior decisions. In contrast, momentum trading is watching a price and deciding to invest based on the price movement. **Competitors are imitable while prices are not.** Observing a competitor buy (independent of other information) is easily translated into actionable imitation by buying. But observing a price rise (independent of other information) is not self-evidently imitable. As the price rises, there are people buying and selling. Moreover, one should not assume that when a price rises one can infer that an unseen herd is pushing up the price and counterparties are selling to them. The situation could be the reverse: a herd of sellers and a single contrarian driving up the price by buying whatever is available. As Preda (2013:45) notes

among investors in another field site, one cannot infer unseen investors' trading decisions from observing price movements alone. I therefore argue that momentum trading is not a herding strategy and is most comparable to other causes of non-herd crowding described in Table 1.