Are Foreign Institutional Investors Good for Emerging Markets?

Michael Frenkel, WHU Koblenz, Germany
and
Lukas Menkhoff, Universität Hannover, Germany*

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Abstract:
Portfolio flows channeled via institutional investors were the most dynamic capital flows to emerging markets in the 1990s. We use an asymmetric information framework to derive five propositions, to integrate empirical evidence and to suggest policy implications. Opaque information in emerging markets hinders foreign market entrants. Moreover, following financial opening, institutional investors can worsen the position of local investors due to unintentionally creating unbalanced diversification and obscure risks. Finally, foreign institutional investors often amplify investment booms and financial contagion. Therefore, capital account and financial market liberalization needs to be accompanied by careful regulation.

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Michael Frenkel
Department of Economics
WHU Koblenz
Burgplatz 2
D-56179 Vallendar, Germany
mfrenkel@whu.edu

corresponding author:
Lukas Menkhoff
Department of Economics
Universität Hannover
Königsworther Platz 1
D-30167 Hannover, Germany
menkhoff@gif.uni-hannover.de

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1. Introduction

The rise and volatility of international capital flows has often been regarded as a major source of financial crises in emerging markets during the 1990s (e.g. Gabriele, Boratav and Parikh, 2001). An important component of these flows has been portfolio investment in the form of investment in equities and bonds. In most cases, investors behind these portfolio flows to emerging markets are institutional investors, such as mutual or pensions funds and insurance companies. As a matter of fact, institutional investors can be regarded as the kingpins of financial globalization. At least for mature markets, their behavior has therefore been intensely investigated. For emerging markets, however, it has only recently received more attention too. In this paper, we propose a coherent asymmetric information framework which allows to integrate systematically the scattered evidence on foreign institutional investors on emerging economies and to assess their effects.

During the past few years, several empirical studies have been presented on the developments and the determinants of international capital flows and on the behavior of institutional investors in particular. Initially, these studies focused on the gains from diversification into emerging markets. It seemed to be a matter of normal developments that emerging markets "become part of the global world-market portfolio" (Bekaert, 1995, p.104). The currency crises in East Asia during the second half of the 1990s, however, added a strong condition to the hypothesis that such portfolio investment flows generate benefits for emerging economies (Bhagwati, 2001). The major lesson learned in this respect is that there is the necessity to reform domestic financial markets before fostering capital account liberalization (see Bird and Rajan, 2001). Institutional reforms usually aim at stabilizing the banking sector against shocks from international financial integration. In particular, the early entry of foreign banks is recommended to stabilize and upgrade the domestic banking sector (see Bird and Rajan, 2001, or World Bank, 2001). By contrast, we show that unrestricted operations of foreign institutional investors do not fulfill analogous expectations because of the possibility that the latter hinder the effective use of capital and put strains on local investors. Due to potential information asymmetries between local

investors and foreign institutional investors, in particular when operating from abroad, capital account liberalization needs to be accompanied by careful regulation.

Our analysis is based on the assumption that developing countries are characterized by imperfect financial markets and by particularly prevalent market failures (Stiglitz, 1989). As a consequence, the asymmetry of information between users and providers of funds is larger in emerging than in mature markets (see World Bank, 2001, p.7). Moreover, as information is more opaque and different to interpret from mature markets, the relative position of outsiders – and among them foreign institutional investors – is weakened. Various recently developed methods of identifying information asymmetries between local and foreign investors confirm this theoretical proposition. Within the same asymmetric information framework, further propositions can be derived and confronted with empirical evidence. The results lead to a coherent overall picture about the questionable impacts of foreign institutional investors on emerging markets. The reason that advanced institutional investors do not provide direct net benefits to less developed economies follows from their competitive advantage, i.e. the compilation and use of information, which cannot be fully realized. On the contrary, under the institutional circumstances of emerging economies, this typical advantage does not exist due to large information asymmetries but turns into a disadvantage in comparison with local investors. Thus, strengths cannot be realized but weaknesses do. We hypothesize that it is the specific institutional nature of emerging markets amplifying the weaknesses of foreign institutional investors.

We proceed in the following way: Section 2 shows the importance of institutional investors for emerging markets. Section 3 uses an information-economic framework in order to derive the strengths and weaknesses of institutional investors. These general insights are then linked to the specific institutional features of emerging economies by generating five propositions. Subsequently, these propositions which are based on asymmetric information are confronted with available empirical evidence in Section 4. Section 5 concludes with tentative policy considerations.

2. The quantitative importance of foreign institutional investors for emerging markets

The surge of portfolio flows to emerging markets is by and large a phenomenon of the 1990s. Whereas their share in total net private capital inflows of these coun-

tries was negligible in the decades before, it rose to almost one third during the past 10 years. This rise had an effect on both the absolute volume and the structure of capital flows from industrialized countries to emerging economies. Neglecting official flows which are small in comparison to private flows for emerging economies, bank lending roughly continued in the 1990s on its former absolute level but lost its relatively dominating position. Foreign direct investment (FDI) multiplied and became the most important form of net private capital inflows. Portfolio flows – consisting, in about equal shares, of equity and bond investments – increased most strongly from a low initial level. This stylized picture applies to all three large areas of emerging economies in the world (East Asia, Latin America, and Central and Eastern Europe including Central Asia) as can be seen from Figure 1. It is thus worth examining the nature and impact of portfolio flows to emerging markets.

Figure 1 about here

If we change the perspective and analyze the importance of foreign institutional investors for certain financial markets in emerging economies there is a lack of available data. It would be ideal to get data on capital flows to emerging markets for different kinds of foreign institutional investors, for different market segments, and for volume and turnover. Available information is, however, much more fragmented. According to a survey by Kaminsky, Lyons and Schmukler (2001, Table 2), foreign emerging market equity funds have a market share in the 13 markets covered between 1% and 16%, with a medium range of about 5% – 10%.

This first approximation of a market share between 5% and 10% is definitely an underestimation of "true" market importance of foreign institutional investors for the following three reasons: there are more mutual funds than emerging market funds, there are also other funds than mutual funds, such as pension funds, and, finally, the free float of stocks is the more relevant basis to measure importance than data on market capitalization. In the following, we discuss these reasons, which we also present in Figure 2, in more detail.

Figure 2 about here

First, there are additional investment activities in emerging markets, in particular by worldwide investing mutual funds. Based on data given by Kaminsky et al. (2001, Table 3, Figure 3) for the US, these funds had a volume of $125 billions at the end of 1998 of which about 10% were invested in emerging market regions. This implies that the share of all mutual funds (i.e., the sum of worldwide investing mutual funds and pure emerging market funds) in emerging stock markets may be 50% higher than the share of pure emerging market funds. The total market share of mutual funds would, thus, be between 7.5% and 15%.

Second, mutual funds – as covered above – are only one segment of all institutional investors. Additional groups, such as pension funds, hedge funds, insurance companies and the proprietary trading of banks are complementing mutual funds. Assuming that these other institutional investors make up for an additional 30% of mutual funds, all institutional investors have a market share in emerging stock markets of roughly 9.75% – 19.5%.

Third, the impact of foreign institutional investors may be underestimated as market dynamics and market prices are more determined by marginal transactions than overall holdings. A respective concept is the "free float", capturing only those assets which are believed to be potentially tradable on the market and not part of a holding company strategy. The free float of stocks is indeed always much less than total market capitalization. Assuming that the free float is about 50% – 75% of capitalization, the impact of foreign institutional investors on emerging stock markets is even larger and can be estimated to be in the range of 13% – 39%. A similar range may be expected for investments in bonds.

In sum, foreign institutional investors are a very important group in emerging markets. Despite several restrictions on the activities of foreigners in these financial markets, their share on transactions – indicating their importance – seems to lie in a range of about 20% – 30% according to our conservative estimates. This figure is even higher than the share of foreign ownership in capital markets of larger industrialized countries. Moreover, the foreign influence in emerging economies is one-sided as most of the domestic investors of these countries hardly have any international exposure. Hence, foreign institutional investors are quantitatively very important. This raises the question as to whether they are equally advantageous to emerging markets. We turn to their specific contribution to the markets in the next section.

3. An asymmetric information view of institutional investors

(1) Institutional investors in general

At least in industrialized countries, a major reason for the success of institutional investors in financial markets and their advantage in comparison with individual investors is their high degree of information. They are specialists for investing funds and as such they benefit from gains of specialization and scale effects. This strength is the basis for their rise and increasing importance in absolute volume and market share. However, it is quite common that innovations, as represented by the presence of institutional investors, solve one problem but can, at the same time, also create new problems. Likewise, it can be argued that the incentive structure for institutional investors sets tight restrictions hindering the full realization of their theoretical competitive advantage (Lakonishok et al., 1992). Before turning to this problem we first elaborate somewhat more on the strengths of institutional investors.

Although the strengths of institutional investors have many facets, two major elements related to portfolio theory stand out: due to their resources to analyze financially relevant information, institutional investors are usually much better informed than ordinary private investors. An information advantage of this kind is the basis for earning higher returns. Moreover, due to the large volume of their funds, it is much easier for institutional investors to hold well diversified portfolios. The combination of high returns and low risk suggests that attractive risk-adjusted returns can be achieved. However, the evidence on their profitability is sobering: it is almost a stylized fact in the empirical finance literature that institutional investments are not able to systematically beat the market, in most cases not even before costs (see, e.g., Grinblatt et al., 1995).

The key for understanding why institutional investors are not more successful in this respect lies in the relation to their principal, i.e. the fund owners. In an ideal world of financial investment, there are no problems for the principal to observe the agent in investing funds in an optimal manner. In reality, however, agents have differing and conflicting objectives from principals and principals have difficulties to correctly interpret the signals they receive about the agents' actions. Keeping the analysis on focus, it seems fair to state that the market has developed two standard measures serving the principals' interest: first, principals observe the investment outcome of the agent on short notice, often once per quarter, and second, they allocate funds to many agents, compare performances and rebalance their overall holdings accord-

ingly. As a consequence, the rational agent does not maximize a long-run absolute performance target, but his success depends more on obeying two other targets: a short-term performance target relative to a benchmark (the market) and a medium-term performance target relative to competitors.

The existence of a short-term performance target leads to a severe constraint for institutional investors, as they cannot hold on to loss-making positions. Of course, it cannot be an objective as such to stick to earlier mistakes, but the need to perform on the basis of short-term evaluations necessarily reduces the possibility of rational actors to speculate independent of current market movements. Shorter horizons restrict position-taking against ongoing movements of the market, such as continuing "rotation" between industries or the identification of "new environments" which justify lower risk premiums on stocks etc. This incentive has the same impact as putting an imperfect barrier against the use of private information in the market.

Related to this concern is the incentive to pursue a medium-term performance target relative to competitors. As many investors delegating their funds to institutional investors rebalance their holdings between different institutional investors for example once a year, institutional investors carefully watch the performance of competitors. It is self-evident that all of them try to beat the others but it is also often a binding restriction not to fall back too much behind the others. The consequence is that good performers will be imitated sooner or later by lagging institutional investors. However, what looks like a perfect mechanism to spread knowledge in the market has a major drawback. The central point is the necessarily limited information about future events. If, for example, an investor is just accidentally successful but all others feel forced to follow his decisions, then the whole market learns or just imitates decisions that are not based on fundamentally relevant information. This herding behavior is then perfectly rational from a micro perspective but absolutely unwarranted from a macro point of view. However, the identification problem is not trivial because positively correlated behavior (which could be interpreted as herding) also occurs when all investors react to the same fundamental information. Finally, (non-rational) herding may characterize a situation in which all investors similarly react on a non-informative signal, possibly due to psychological forces. Among these situations, only the – first mentioned – rational herding is caused by the information asymmetry between acting institutional investors and the fund owners as principals. Superficially, institutional investors behave sub-optimal in these cases as they do not rely on their

own fundamental information and do not exploit all available information. The deeper reason for this decision is their dependence on the less informed principal's judgment who evaluates only realized performance and cannot differentiate between performance based on information and performance based on accidentally fortunate circumstances.

These information-based strengths and weaknesses of institutional investors in general cannot be fully applied to emerging markets as these are characterized by a lower degree of publicly available information. The reasoning and consequences are discussed in the next section.

(2) Foreign institutional investors in emerging markets

One of the characteristics of developing economies is their lack of sophisticated market institutions (see Bardhan, 2000). As markets operate basically in an anonymous manner, market participants need reliable information about their potential counterparts in order to act efficiently. If the source of information is not a personal contact with good track record, any reliance on anonymous sources of information requires that its quality is confirmed in some other way. In industrialized countries established institutions, such as laws, accounting rules etc. perform this task. In developing countries, information is necessarily much more based on personal experience. Emerging economies may be seen as an intermediate case. For our purpose, they can be characterized by a higher importance of non-anonymous information being based on personal experience in comparison with industrialized countries. Expressed differently, emerging markets are characterized by a lower amount of reliable and publicly available information.

This difference in institutions – and information in particular – is our starting point to derive five propositions regarding the impact of foreign institutional investors in emerging markets. Our first proposition draws on the asymmetry between the extent of information of domestic and foreign investors. To justify this basic assumption it may be useful to imagine the simplified situation when a formerly closed economy opens up the capital account to foreign institutional investors. In this case, two groups can be distinguished in capital markets, locals and foreigners, and there are two relevant kinds of information for investment decisions, i.e. local and foreign content. It seems plausible to assume that some information about emerging economies is always better available locally. This applies in particular to opaque markets, such

as in emerging markets, where data need accompanying information. This information advantage seems to exist even in more advanced financial markets, which accords well with recent rationalizations and empirical substantiations of the home bias puzzle (i.e., investors not utilizing gains from international diversification).

A second assumption underlying our first proposition is that the higher technological level of foreign institutional investors may be reflected in a superior general information level of foreigners in comparison to locals. Thus, we have two effects in opposite direction that foreign investors bring to the markets. The more important the local knowledge is – and this defines emerging markets – the less effective is technological advantage and the more likely is the inferior position of foreign investors. In this case, local advantage dominates technological advantage and foreign institutional investors cannot fully exploit their advanced technology with respect to information compilation and analysis. Therefore, foreign institutional investors tend to be the investors in emerging markets with the lower overall quality level of information.

Proposition 1: The market entrance of comparatively less informed foreign institutional investors dilutes the average level of information in the market and thus lowers the information quality of financial prices. We refer to this as "diluted information."

A graphical presentation of the ideas underlying proposition 1 is given in Figure 3. The information problem is reduced to two kinds of investors and two kinds of relevant information. In the "old world" of closed financial markets, the relevant field is shown in bold lines, that is the "local-local" field where local investors analyze and trade on local information. The corresponding informational quality is said to be good, indicated by a degree of "b". Note that the closed situation of industrialized countries, that is the "foreign-foreign" field, is characterized by very good quality of information caused by the higher technological level, indicated by "a". When well equipped foreign investors enter (local) emerging markets, they can be expected to have an information disadvantage which is the reason why their ability to interpret local information is assessed as being fair, i.e. a degree of "c". The lower technological level of institutions from emerging markets and their insufficient resources to analyze the rest of the world is the reason why they are in an unpleasant situation regarding foreign information: their respective information level is only of the unsatisfy-

ing degree "d". This assessment includes the critical assumption that the technological advantage of foreign institutional investors does not compensate the information disadvantage which implies that c < b. This idea is not compelling on the arguments given but rests on the later presented empirical evidence. Our reasoning can be thus expressed by the following condition about the level of informational quality:

$$a > b > c > d \qquad (1)$$

Figure 3 about here

The entrance of new market participants in the form of foreign institutional investors who want to invest funds in capital markets of emerging economies enlarges the supply of capital. This change may fuel investments twofold: first, by easing effects from credit rationing and, second, by a tendency to lower the interest rate. The outcome that can be expected is an investment boom which may help build up the necessary capital stock for catching up with industrialized countries. However, investment as such is only a necessary but not a sufficient condition for enhanced growth. What is also needed is a careful selection of investment projects and continuing monitoring and sanctioning of the borrowers. These prerequisites for efficient capital allocation are less given in emerging markets than in the home countries of institutional investors. It is in particular publicly available information that institutional investors rely on. However, this information has lower value in emerging markets than in industrialized countries. Moreover, regulatory authorities ensuring the quality of information and the restriction of risk-taking are also relatively weak. Thus, investment euphoria is fueled but not efficiently controlled and regulated.

Proposition 2: Increased competition from foreign market entrants enlarges the pool of potentially available capital and lowers the price of capital. The resulting investment boom together with underdeveloped market regulation and insufficient information on investment projects leads to relatively high fragility of the economy. We refer to this as "illusive competition."

The framework reflected in Figure 3 can also be used to analyze the extent of diversification by adding the assumption that investors tend to enter markets only in

accordance with their relative information position. This relative position can be expressed by the following relation

$$c/(b + c) > d/(a + d), \quad (2)$$

where the first term represents the relative information position of foreign institutional investors in emerging markets and the second term represents the relative position of investors from emerging markets in mature markets. This implies a comparatively better information position of foreign institutional investors and, thus, an asymmetry in foreign investments: institutional investors from mature markets will be much more present in emerging markets than investors from emerging economies in the markets of industrial countries (the effect will be probably enforced by transaction costs). This consequence is expressed in proposition 3.

Proposition 3: The integration of emerging markets into international financial markets yields new opportunities for diversification. However, due to information asymmetries, this applies more to investors from industrial countries. We refer to this as "unbalanced diversification."

Diversification should, however, not only be driven by information but also by different types of risk and by the distribution of risks in individual markets. In this respect, the financial opening will change the sources of risk in emerging markets. To consider this argument, assume for the sake of simplicity that the overall risk of an open emerging market (σ_E) consists of a local risk component (σ_l) and a new foreign risk component (σ_f),

$$\sigma_E = \sigma_l + \sigma_f. \quad (3)$$

At first glance, the additional risk component σ_f may be interpreted as an overall increase in risk, according to the following reasoning. The formerly closed markets were characterized by local information and local shocks. Due to the opening-up of the capital account, the relation between the domestic market and the international markets has become more important. Shocks from abroad transmit faster and stronger to the home market and thus disturb the local economy. This implies

$$\sigma_f > 0 \text{ so that } \sigma_l + \sigma_f > \sigma_l. \quad (4)$$

This reasoning neglects, however, that financial internationalization does not only expose the economy to new shocks but also offers new ways of diversification.

This is typically the perspective of institutional investors when entering emerging markets. Although mature markets and emerging markets can be affected by the same influences in the world economy, an asymmetry arises because of the different weights of both economies for world economic developments. Due to the higher weight of the mature markets compared to emerging economies (m > e), the new world economy (m + e = 1) behaves much more like mature markets then like the formerly closed emerging economies. If we take a simplifying two-country case, consisting of a local emerging and a foreign mature market, we can reformulate the overall risk of the emerging market as:

$$\sigma_E = e\ \sigma_l + (1 - e)\ \sigma_f. \quad (5)$$

By assuming that the risk distribution in the mature market just mirrors the emerging market, local risk in the mature market is given by σ_f. Denoting the overall mature market risk by σ_M, we can write

$$\sigma_M = m\ \sigma_f + (1 - m)\ \sigma_l. \quad (6)$$

Given the assumption made above that m = 1 – e, the emerging market risk equals the mature market risk, that is

$$\sigma_E = \sigma_M = e\ \sigma_l + m\ \sigma_f, \text{ where } m > e. \quad (7)$$

Under the assumptions made here, the risk difference between countries in the world economy is neither one of specific risk factors nor one of different levels of risk. The different relative position of emerging economies in the world economy is associated with two reasons: first, the relevant new risk resulting from financial opening is much more regarded as obscure by local investors in emerging economies than by foreign investors due to their information disadvantage, according to the relation

$$(b + d) < (c + a) \quad (8)$$

resulting from the information asymmetries presented in Figure 3. Second, these economies have lesser abilities to handle risk due to a less developed institutions. Consequently, the new financial linkages to the world economy are felt in the emerging markets rather painful as the new risks as well as appropriate new instruments to deal with these shocks are underdeveloped.

Proposition 4: The new financial linkages to the world markets expose the emerging market to new risks. These create risk-sharing opportunities but, acknowledging insufficient diversification and hedging instruments,

effectively turn new risks into obscure risks for emerging markets. We refer to this as "obscure risks."

Unfortunately, increased risks due to insufficient information and diversification of domestic participants of emerging market do not constitute the complete picture. As mentioned above, institutional investors have their own informational limitations. These can lead to a tendency of herding without respecting fundamental information enough. A crucial factor that intensifies the effects of shocks in emerging markets is contagion generated by portfolio flows which are not caused by changes in country-specific fundamentals but by changes in other emerging markets. A simple pricing formula for an individual asset – here the emerging market – helps to demonstrate the effect. According to the CAPM, the expected return r_i of an asset i can be explained by the following determinants:

$$r_i = r_f + (r_M - r_f)\,\beta_i, \text{ where} \quad (9)$$

$$\beta_i = \sigma_{iM} / \sigma^2_M. \quad (10)$$

The first determinant r_f in (9) is the risk-free rate, the second determinant $(r_M - r_f)$ is the difference between the market portfolio return and the risk-free rate and the third determinant β_i is – as defined in equation (10) – the covariance between asset i and the market portfolio relative to the variance of the market portfolio. In short, the only term that varies with the single asset is the covariance. In our case, this is the co-movement of the respective emerging market with the world market. What can an institutional investor do to forecast this co-movement with the above discussed limited fundamental information?

The less the investor knows, the more he may feel satisfied by relying on historical relations, such as the historical co-movement of an emerging market with the world market. Under these circumstances, an unidentified idiosyncratic shock to a single economy will be interpreted as a shock to all similar kinds of economies. Consequently, the portfolio approach will cause "rational" contagion. Contagion will be stronger, the worse the information of investors about a market is. This substituting of non-available fundamental information can also be found when institutional investors follow the decisions of other market participants, i.e. generating herding, or try to learn from the past by buying past winners, i.e. generating momentum. A final detrimental macroeconomic effect is caused when investors want to sell in illiquid emerg-

ing markets and deviate to the more liquid ones independent of country-specific information.

Proposition 5: The incentives for institutional investors to behave in similar pattern cause overshooting of financial prices. These coordinated portfolio flows move emerging markets more than others as they are less liquid and less researched. We call this "booming contagion."

In sum, the lower degree of publicly available information in emerging markets is the major reason for adverse effects of foreign institutional investors as stated in the preceding five propositions. This more opaque information is inherent to the institutional stage of development of emerging economies. In some cases, the comparatively lower liquidity enforces the unwanted impact. The discussion in this section implies that opaque information and low liquidity are very adverse circumstances that impede institutional investors to leverage their competitive advantage.

4. Empirical evidence on the impact of foreign institutional investors

Can the problems of institutional investors in emerging economies that are discussed in the previous section be supported by empirical evidence? The relevance of portfolio flows to emerging markets is a relatively new phenomenon and has therefore only recently triggered empirical studies analyzing these flows. We review the empirical evidence and structure it according to the five propositions outlined in Section 3. Of utmost importance is the core of proposition 1 focusing on information disadvantages for foreign institutional investors in comparison to local investors.

(1) Evidence on diluted information (proposition 1)

The idea of well-trained foreign investors displaying an inferior reaction to domestic information in emerging markets has been discussed particularly in the aftermath of the Mexican crisis in 1995. Four different approaches can be distinguished. A first approach was advanced by Frankel and Schmukler (1996). They present a pioneering test of the information asymmetry hypothesis by exploiting the information in the price difference between Mexican country funds and the net asset values

(NAVs) of the same funds: the three funds under investigation are traded in New York and, thus, represent the supply and demand of US investors, whereas the underlying assets are traded in Mexico and thus rather represent the pricing of Mexican investors. A particular characteristic of the country funds is their form as closed-end funds, i.e. that the number of outstanding shares is fixed. It is a stylized fact that such closed-end funds usually trade with a discount which has been intensively debated. Frankel and Schmukler (1996) contribute to this literature by advancing an asymmetric information explanation.

If local investors – here Mexicans – had better information about the underlying assets and if foreign investors (predominantly US-investors) anticipated their own information disadvantage, foreign investors would pay less for identical Mexican assets due to uncertainty. Moreover, one would expect that the normal discount of the country funds changes over time in accordance with information that is "closer" to the local or the foreign group of investors. The data reveal indeed the appropriateness of both hypotheses: the difference of fund prices TO NAVs – the discount – is of a stationary long-run character with imperfect short-run adjustment of fund prices to NAVs. This discount on country fund prices might indicate uncertainty on the part of foreign investors. Of particular interest is the imperfect adjustment. Granger causality tests support the hypothesis that NAVs lead the behavior of fund prices, a finding that is consistent with better information of local investors. This is very obvious for the period of the Mexican crisis at the end of 1994 when fund prices fell more slowly than NAVs, thus turning the discount into a premium.

A follow-up paper of the same authors (Frankel and Schmukler, 2000) extends these results to a set of 61 funds over a slightly longer time period and also examines information asymmetries. The above findings regarding the behavior of the discount still hold, covering, among others, the Asian crisis. However, a marked difference is that the authors now differentiate between small and large foreign investors. They tend to assign investments into country funds to small investors but count large foreign investors – which would include institutional investors – as local investors, possibly due to their local presence (p.183). Seen from this perspective, the approach of examining country fund discounts falls short of precisely analyzing the behavior of foreign institutional investors as it is unclear whether this group is responsible for the local asset prices or whether these prices emerge despite trading of institutional investors.

A second approach was advanced by Brennan and Cao (1997) who examine the relation between portfolio flows and returns in the respective stock markets (for a comparison of studies see Table 1). Using quarterly data for the 1980s and early 1990s, they find that, in most cases, flows are positively associated with local market returns. This can be interpreted as a causality running from returns to flows if one accepts the reason given that international flows are seen as being too small in comparison to market capitalization to dominate the course of returns. Obviously, the causality argument is stronger when flows "react" – according to this argument – to earlier returns, indicating a time-consuming process of information gathering. This is the case for their sample of emerging markets but not for mature markets. The observed divergence between industrialized and emerging economies is very important for proposition 1 that foreign investors are less informed in emerging markets.

Table 1 about here

In an extension of this work, Froot, O'Connell and Seasholes (2001) cover more countries with high-frequency data. Their results allow more precise conclusions. Regarding our focus, they do not reject the asymmetric information hypothesis but they are also not able to determine whether returns cause flows or flows cause returns.

To examine this question, Froot and Ramadorai (2001) propose an approach to control for price pressure, i.e. flows causing returns. They derive a constructed measure of asset price pressure basically from differences between country fund prices and NAVs. However, they have to rely on a long list of assumptions in testing their hypothesis. Only if one accepts these assumptions, their measure reveals a greater probability that foreigners have information suggesting that flows cause returns, rather than the opposite.

A third approach to test information asymmetries as discussed in this paper can be seen in the use of more detailed financial market transaction data that include more precise information on the behavior of heterogeneous investors, among them foreign institutional investors. The first high-frequency study is Choe, Kho and Stulz (1999), who use one year of transaction data from the Korean stock market. They find some evidence for positive feedback trading and herding of foreign investors, although they cannot distinguish between foreign individuals and foreign institutional

investors. Regarding this problem, the study of Kim and Wei (2002) represents major progress. The authors also examine the Korean stock market around the end-1997 crisis. In addition to a differentiation between foreign individuals and foreign institutional investors, they can also distinguish between foreigners residing in Korea and those residing outside the country. These groups seem to behave differently and, by and large, consistent with our proposition under review: foreign individuals – as the least informed foreigners – herd most, followed by non-residential foreign institutional investors and most independent in their decision-making are resident foreign institutional investors. The latter group is the only one which followed a presumed profitable strategy. In addition, buy and sell decisions of foreigners (versus the remaining groups of domestic traders) are more related to reports in foreign newspapers, while those of domestic investors are more based on a local newspaper. This suggests that domestic and foreign traders each tend to rely on news presented in their home country.

The latest study in this line of investigation is Choe, Kho and Stulz (2001) who find on the most disaggregated and precise data available, i.e. time-stamped transaction data for several kinds of investors that in the Korean case domestic individual investors have information advantages against foreign investors. This result is robust for several ways of analysis.

A fourth approach addressing the possible information asymmetry has been presented by Kaufman, Mehrez and Schmukler (1999). Their idea is to test whether local businesses had more correct expectations about the forthcoming Asian crisis than international financial markets. They construct a measure of crisis expectation derived from survey data compiled for the annual Global Competitiveness Survey. Then, they control the expectation data for publicly available information on macroeconomic and financial data. For Thailand, Korea, and for Russia, the authors find support for the hypothesis that local businessmen had better expectations. However, they cannot find this result for Indonesia and Malaysia. At least for three out five countries covered, the results are consistent with the view that local professionals have private information about forthcoming events.

In sum, the four approaches discussed in this section provide evidence in favor of an information advantage of local investors compared to foreign institutional investors. According to the results of the above-cited studies, this advantage is less pronounced in industrialized countries. It may be thus assuring that recent evidence

supports the argument of a local information advantage even within mature markets (see Coval and Moskowitz, 1999, Hau, 2001). We can, therefore, conclude for emerging markets, on which we focus in this paper, that the entrance of foreign institutional investors into their capital markets tends to dilute the information inherent in domestic financial prices as these market participants trade with less information.

(2) Evidence on illusive competition (proposition 2)

Recent research on the effect of liberalizing capital flows in the 1990s has revealed rising stock prices and, thus, a falling "price of capital" (Bekaert and Harvey, 2000). The absolute size of this effect can be expressed as being below one percentage point of the expected return on equity (Bekaert and Harvey, 2000). From the viewpoint of an International (Capital) Asset Pricing Model (IAPM) this can be regarded as disappointingly low. Nevertheless, given that the decline in the price of capital has basically the same effect as an exogenous decline in the real interest rate, it can be expected to have favorable consequences for economic growth.

These linkages have been intensively analyzed for the case of stock market liberalizations allowing for the entrance of foreign investors, i.e. as part of capital account liberalizations. Henry (2000, 2000a), Bekaert, Harvey and Lundblad (2001) and Fuchs-Schündeln and Funke (2001) show that stock market liberalization in emerging markets lowers the price of capital, this induces an investment boom which goes along with higher growth rates. For our discussion, it does not matter whether this boom is more influenced by better availability or more attractive conditions of financing. There are, however, three caveats which are not generally emphasized in the literature. First, the growth effect seems to be of temporary nature. Whereas Henry (2000a) examines a three years period, Fuchs-Schündeln and Funke (2001) explicitly analyze growth effects for a five year post-liberalization period. The reported year by year-results reveal that the growth effect is hump-shaped and ends with the third or fourth year, depending on the regression specification. In addition, the inclusion of control variables shows that growth is largely explained by more investment and larger stock markets. It is thus basically driven by increased factor input and not primarily by improved factor productivity. This latter inference is of particular concern as the major impact of financial development is often expected to stem from a qualitative upgrading that should show up as increased total factor productivity (e.g. World Bank, 2001).

Second, the above literature reports growth benefits but does not focus on efficient capital allocation. Chari and Henry (2001) show in this respect that firm revaluation reflects the new riskiness of single firms in the opened emerging stock market. In a follow-up paper, however, the same authors (2002) investigate directly the impact of capital account liberalization on the growth rate of the firms' capital stock. The above reported economy-wide effect of an investment boom contrasts with firm-specific evidence as "the reallocation of physical investment following liberalization bears no significant correlation to changes in systematic risk or investment opportunities" (p.17). That is, the stock market revaluation does not feed through to a reallocation of new investments. This is consistent with the view that foreign institutional investors do not have the information and capacity to induce an efficient reallocation of resources but that they rather disturb efficient capital allocation. Therefore, it cannot be excluded that measured growth is illusive as additional investments have not been allocated efficiently.

Third, the reported average growth effects are not balanced in most studies with possible increased financial fragility. It is well-known that capital account liberalization has strong forecasting power for financial crises (Kaminsky and Schmukler, 2001). It is therefore no surprise that the strengthening of institutions helps both to increase the growth impact from stock market liberalization (see Bekaert et al., 2001, Fuchs-Schündeln and Funke, 2001) and from general capital account liberalization thereby reducing financial fragility (Arteta, Eichengreen and Wyplosz, 2001, Edwards, 2001).

In sum, it is difficult to assess the growth effects from financial opening. On the one hand, it offers more access to international capital markets which could be beneficial for growth, on the other hand, informational asymmetries on the side of foreign institutional investors could have serious negative effects on resource allocation efficiency and financial stability. As a consequence, there seems to be support for our proposition that the growth effects are often illusive.

(3) Evidence on unbalanced diversification (proposition 3)

Investor diversification in industrialized countries has been intensely investigated in the past leading to the fact of a surprisingly low degree of international diversification. This phenomenon is often referred to as the home bias puzzle. It implies that there are significant unutilized diversification opportunities. The relevant

issue for the topic of this paper is the question of an existing asymmetry between the diversification of domestic and foreign investors. Whether a US investor holds some stocks in emerging markets or not is a matter of the degree of optimizing her portfolio. The standard result is that diversification through investing in emerging markets leads to considerable gains (see e.g. Bekaert, 1995). Even if a somewhat higher risk-adjusted return could be realized by these investments, the relevant benchmark for a diversified portfolio is usually the US market or, alternatively, other mature markets.

From the perspective of, for example, a Korean investor, the situation is very different: if she likes to diversify her investments, the home market is only a small part of the world and the variability of this market in relation to the world is necessarily higher than for the largest economy. Thus, the opening of the capital account for portfolio flows should provide strong incentives to invest abroad. These incentives can be expected to be higher for smaller economies and, hence, also stronger for emerging markets than for industrialized economies.

Actual portfolio flows, nevertheless, do not match the described theoretical advantages of diversification. Whereas there are massive flows into emerging markets, which can put upward pressure on stock markets and currencies, the counterbalancing flows are low. The implication of the preceding consideration is that portfolio flows from industrialized economies – channeled via institutional investors – help to realize further gains from diversification whereas the opposite flows are, in principle, even more desirable but do not materialize. In this sense, benefits from diversification are in fact a one-sided story.

(4) Evidence on obscure risks (proposition 4)

Empirical research on possibly changing sources of risk for emerging markets due to financial opening has followed two approaches: there is an older macroeconomic literature and a more recent finance literature. The macroeconomic literature was motivated by the debt crises in emerging markets in the 1980s which were partly caused by the increase in US and, accordingly, world interest rates. As soon as an emerging economy is to some degree outwards oriented, external shocks matter for the own markets. Financial shocks matter more if portfolio flows are allowed to quickly transmit any news between national markets. The central price for financial issues is the interest rate and empirical studies indeed confirm the association between interest rate shocks in world markets and financial volatility and crises in

emerging markets (Frankel and Rose, 1996, Frankel and Roubini, 2001 or Mody, Taylor and Kim, 2001). As world market shocks are usually felt stronger in smaller markets, there is a relative disadvantage for emerging markets. This may be enforced by their higher country risk as the risk premium rises in times of uncertainty.

In general, however, international financial integration is no one-way transmitter of shocks but serves as a means to share risks on a broader basis which reduces volatility and the risk premium in general. This may be especially true for emerging economies which are often less diversified than larger industrialized countries. The second line of research mentioned above focuses on these interrelations by empirically analyzing the behavior of stock markets before and after international capital account liberalization. Bekaert and Harvey (2000) find that the integration leads to slightly stronger co-movements of domestic stock markets and international stock markets. This implies that external shocks play a larger role than before. An undesirable consequence is a small but significant increase in volatility.

The empirical studies mentioned above show the increasing importance of external developments after financial opening. It seems plausible – although it has not been directly proved – that local investors in emerging markets regard these new risks as more obscure than traditional risks (see also Edwards, 2000). The result of Chari and Henry (2002), i.e. the unrelated development of efficient stock market revaluation and inefficient investment reallocation, seems to point in this direction. Assuming that foreign institutional investors may be able to influence stock market valuations but – due to their minority holdings – not investment plans, local managers and investors often find it more difficult to adequately translate the new risk-return environment into appropriate new investment decisions.

(5) Evidence on booming contagion (proposition 5)

Investors nowadays shape their investment behavior according to modern capital market theory. The backbone of portfolio optimization is the above sketched variance-covariance matrix which is used to evaluate the risk of an asset. This risk measure in combination with expected returns gives the risk-adjusted return of each asset which should be in line with "the market", i.e. interest rates and risk aversion. Assessing riskiness by using historical risk relations implies that observing a crisis in a certain emerging market leads investors to believe that similar problems also exist in other emerging markets. In this sense, one may conclude that observable conta-

gion is enforced by foreign institutional investors. This behavior can be observed empirically. However, it does not reflect inefficient behavior of the market but rational decision making of institutional investors given the observed historical relationships, as has been argued by Schinasi and Smith (2000) or Disyatat and Gelos (2001).

When investors perceive higher risks of investments in emerging markets, the pressure on selling assets becomes generally larger for leveraged portfolios. The intuition is that a severe shock can be seen as enlarging the risk of portfolios and that investors seek to reduce their risk. In this case, they usually sell some risky assets and pay back some debt. This behavior may explain why, in response to a crisis, assets are sometimes sold – and their prices possibly fall – in the most liquid markets although their fundamentals are unaffected by the shock or may be even strengthened (Kaminsky, Lyons and Schmukler, 2000).

The behavior of foreign institutional investors in emerging markets is also characterized by herding and momentum trading – as it is in other markets too. The focus of these investors on their competitors and their contracts with the fund owners explains why they have high incentives to imitate to some degree other market participants: they follow their benchmarks (Disyatat and Gelos, 2001), they herd (Borensztein and Gelos, 2003) and they apply momentum trading, i.e. to buy past winners and sell past losers (Borensztein and Gelos, 2003, Kaminsky, Lyons and Schmukler, 2000). The impact of this behavior on financial markets is discussed in the literature controversially. Some focus on the sophisticated use of information by institutional investors and, thus, conclude that transactions can only be due to better information. By contrast, others focus on the behavioral restrictions for institutional investors and conclude that their transactions may not always be in the interest of the economy but could well reflect different objectives like their own personal interests rather than the interest of the principal (Calvo and Mendoza, 2000). Whichever argument actually dominates, there are at least two reasons to believe that the second position is more relevant in emerging markets. First, there is no information advantage of foreign institutional investors, and second, any coordinated non-fundamental trading practices will create more volatility in less liquid emerging markets more than in more liquid mature markets.

5. Concluding policy considerations

The analysis in this paper indicates that activities of foreign institutional investors in emerging economies following the opening-up of the capital account are not simply positive for these countries but can also exert adverse effects. The reasons are derived from asymmetric distributions of information, between local and foreign investors and between fund holders and managers. Foreign institutional investors can be assumed to have relatively little information on specific developments in emerging markets so that "diluted information" and "illusive competition" can result. Their influence on these markets is likely to worsen the relative position of local investors which leads to "unbalanced diversification." Moreover, due to their incentives they are likely to amplify occurring imbalances or even trigger financial shocks leading to what we call "obscure risks" and "booming contagion". A radical policy conclusion could be, thus, to close emerging markets for these institutions. However, there is no question that opening financial markets, and thereby increasing competition, importing advanced technology and benefiting from better diversification opportunities involves a number of benefits for emerging markets and is particularly useful in the long run (Aizenman, 2002).

Given the adverse effects in emerging markets induced by the behavior of institutional investors and given that access to international capital markets can be very positive too, the question for policy-makers is: how can conditions for operations of foreign institutional investors be improved to better serve the economy. A central aspect for economic policy is to open up the capital account carefully, i.e. taking into account the state of institutions. In order to foster this process, lessons from the involvement of foreign banks may be interesting. Whereas the flows of international bank credits are quite volatile, the operation of foreign banks in emerging markets is nowadays assessed more favorably (see the overview in World Bank, 2001). Foreign banks provide the chance of stabilizing the banking system by better diversification, mobilizing external sources of capital and improved technological abilities. The central policy challenge is to induce an involvement and macroeconomic contribution of foreign institutional investors in a way similar to foreign banks with a subsidiary in an emerging market. If the local presence is politically acceptable it helps to reduce the otherwise existing information disadvantage of foreign institutions. Notwithstanding these general lessons, a few more specific policy considerations can be given. We structure these according to the five propositions discussed above:

(1) Foreign institutional investors dilute information less when publicly available information in emerging markets is more reliable and when they act from inside the emerging country. To this extent, more transparency, fair trading practices etc. are helpful. Moreover, the contribution of foreign institutional investors investing in emerging markets is much more positive when they operate from inside the emerging country thereby reducing their information disadvantage.

(2) To balance illusive competition measures to upgrade financial institutions as intermediaries of capital inflows should be implemented (e.g. training programs and introduction of appropriate regulatory measures). In addition, capital inflow restrictions may be necessary. Facilitating capital outflows rather than restricting such flows could have the additional advantage of compensating, to some extent, any temporary high capital inflows induced by capital liberalization measures. This, of course, also requires appropriate macroeconomic policies so that the current account balance allows for such flows.

(3) Local investors should be given some incentives to deliberately invest abroad in order to diversify local portfolios. A possible instrument in this respect could be appropriate incentives for savings schemes, such as pension funds.

(4) In order to better understand and manage obscure risks, institution building is necessary before the capital account is opened up. Market participants have to be aware of new risks emerging from internationalization and of the opportunities offered by hedging strategies.

(5) At the moment, there are hardly any specific instruments to curb with negative externalities, such as financial contagion, generated by foreign institutional investors. As these disadvantages are strongly felt in emerging markets, these economies should be restrictive in fostering foreign institutional investors as long as information asymmetries are likely to be significant.

In sum, foreign institutional investors are beneficial for an economy under specific institutional conditions. It is a defining characteristic of an emerging market that these conditions are often not met. In this sense, the questionable impact of foreign institutional investors on emerging markets is not just an issue of improving policy but is basically inherent to these markets. Hence, a long-term oriented development strategy is required to generate full benefits from foreign institutional investors investing in emerging markets.

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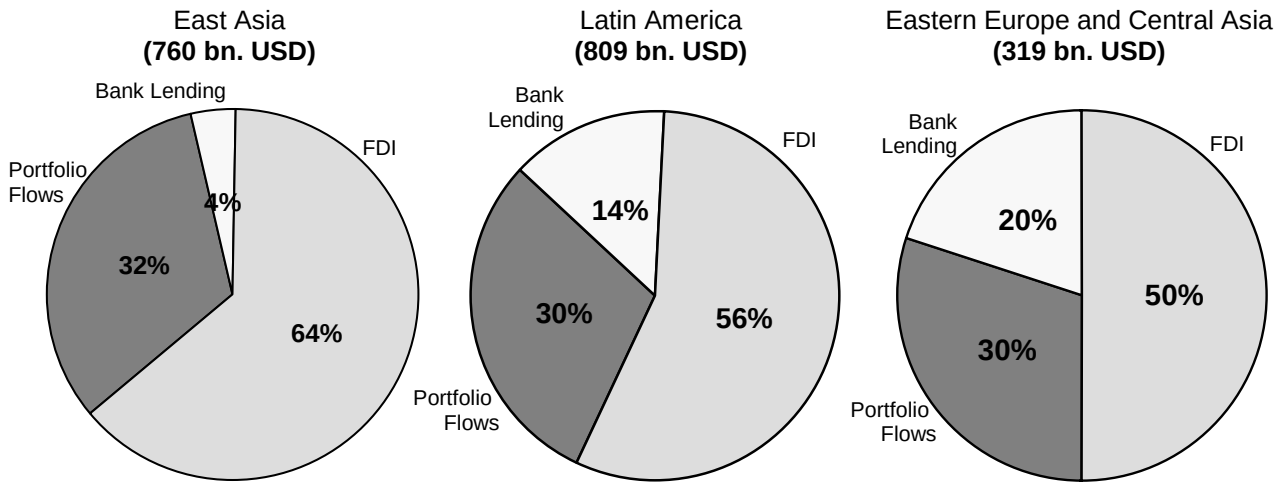
Table 1. Studies Examining Information Asymmetry between Local and Foreign Portfolio Investors

Approaches	Studies	Examination	Data	Result	Proposition 1
Country funds discounts	Frankel and Schmukler (1996)	3 Mexican fund prices in New York vs. their NAV´s in Mexico	1.90 – 3.96, weekly	less informed fund prices with discount; informed NAV´s fall in crisis before fund prices	✓
	Frankel and Schmukler (2000)	61 country fund prices in New York vs. their local NAV´s	1.85 – 3.96, weekly		✓
Portfolio flows and returns	Brennan and Cao (1997)	Flows between US and 4 industrialized countries	II.82 – IV. 94, quarterly	positive association of flows and returns	?
		Flows from US to 16 emerging markets	I.89 – IV.94, quarterly	positive association of flows with lagged returns	✓
	Froot et al. (2001)	Flows between 44 countries and their characteristics	1. Aug 94 - 31. Dec. 98, daily	past returns influence inflows; inflows forecast equity returns in emerging markets	?
	Froot and Ramadorai (2001)	39 country funds on 25 countries: flow-return-association controlled for price pressure	1. Aug. 94 - 24. Dec. 98, weekly	flow forecasting power more due to information than price pressure	no
Heterogeneous high-frequency trading data	Choe et al. (1999)	Feedback trading of foreigners in Korea	12.96 – 12.97, intraday	positive feedback trading of foreigners; without excess returns	?
	Kim and Wei (2002)	Trading of foreigners´ groups in Korea	12.96 – 6.98, monthly	individuals herd more than institutionals; residential institutionals show profitable trading	✓
	Choe et al. (2001)	Event study of trades around large absolute value abnormal returns	25. Nov. 96 - 30. Nov. 98, time-stamped transactions	domestic individual investors trade at better prices than foreign investors	✓
Survey data	Kaufman et al. (1999)	Comparing local managers´ crisis expectation to those of int´l fin. markets	surveys end of 95, 96, 97	local managers have useful private information (controlled for fundamentals)	✓

Figure 1. The flows of net private capital to developing countries

A. THE DISTRIBUTION OF NET PRIVATE CAPITAL FLOWS (1990-2000)

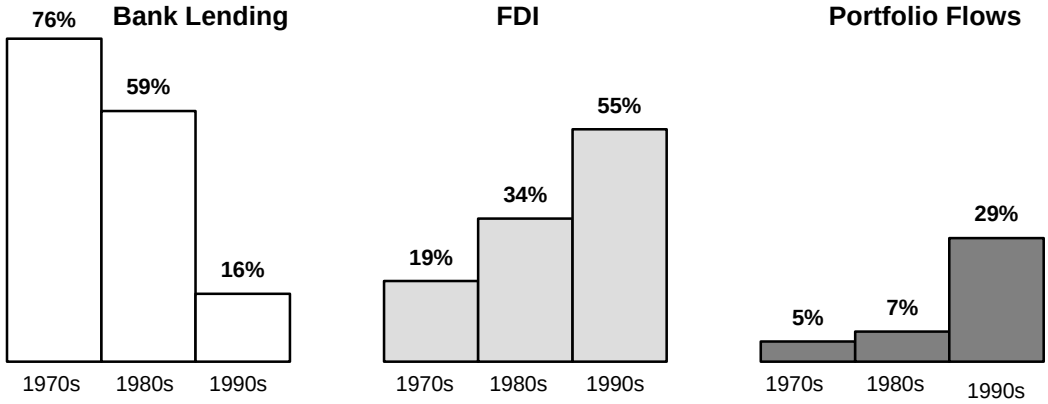


China, Indonesia, Korea, Malaysia, Philippines, Thailand etc.

Argentina, Brazil, Chile, Mexico etc.

Czech Republic, Hungary, Poland, Russia, Turkey etc.

B. THE SHARES OF DIFFERENT TYPES OF NET PRIVATE CAPITAL FLOWS OVER TIME



Source: Data are from The World Bank, Global Development Finance 2002

Figure 2. The Approximate Market Importance of Foreign Institutional Investors in Emerging Markets

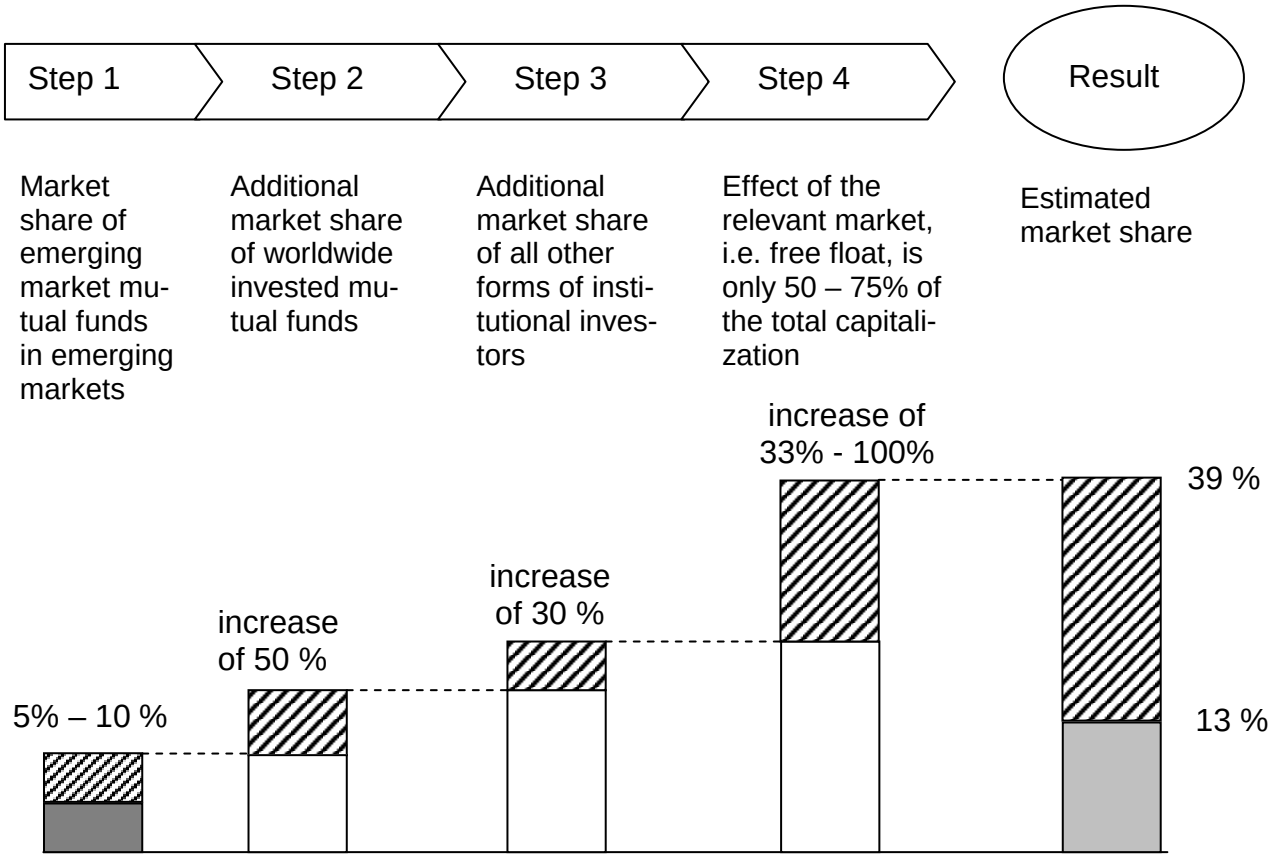


Figure 3. Heterogeneous Distribution and Quality of Information in Open Emerging Markets