

20th International Scientific Conference Economics and Management - 2015 (ICEM-2015)

Active Investing in BRIC Countries

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Abstract

We measure active investment for BRIC markets equity funds by contrasting fund returns with local and global index returns. On average passive funds are assumed to replicate the market and therefore their returns are well explained only by local index. We contrast local managers, with non-local ones, self-declared geo-focused on the local market. With this method, we are able to uncover and measure overconfidence biases where local managers are more tied to local indices than managers explicitly geo-focused on those indices. Results show meaningful differences among countries and fund clusters.

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Peer-review under responsibility of Kaunas University of Technology, School of Economics and Business

Keywords: Active Investment; Home Bias; Overconfidence; Alpha; Risk Measures.

Introduction

Asset pricing literature is recently focusing on the role of active investment policies: as far as markets are not Fama-efficient, managers might gain a positive alpha focusing on those securities for which they have superior information and those industry sectors where they have better skills. The idea of focusing on those securities, which one is more familiar with dates back to Keynes (Keynes 1983): “[I]t is a mistake to think that one limits one’s risk by spreading too much between enterprises about which one knows little and has no reason for special confidence. [...] One’s knowledge and experience are definitely limited and there are seldom more than two or three enterprises at any given time in which I personally feel myself entitled to put full confidence.”

In recent times, Chen and Lai 2015 find that portfolio concentration levels are highly related to fund returns in stable market periods; conversely, they are negatively related during turmoil market periods.

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As regard performance, Fama and French 2010 show that, only for few funds, on a sample of actively managed U.S. equity mutual funds, managers' skills generate enough performance to cover costs and for many of their active funds performances are near to those of passive ones.

Since the active investment is peculiar of hedge fund investments, a number of scholars focus their analysis here. Some authors, (Abel and Fletcher 2004, Strömquist 2007), find that some hedge funds tend to outperform the benchmarks, but most traditional mutual funds do not. One possible reason could be found in hedge funds being more actively managed than mutual funds. Eling and Faust 2010 find support for this hypothesis applying structural break tests of performance and factor exposure in different market environments.

It should be noted that the notion of active investment might be not easily captured by general statistical concentration indices — as in Busse et al. 2007 and Chen and Lai 2015 — because they are not able to capture the industry dichotomy among active and passive funds in terms of benchmark replication as measured by tracking errors. In this regard, an innovative study by Cremers and Petajisto 2009 introduces a new measure denoted Active Share, which aims at gauging the extent of active management employed by fund managers. Instead of measuring the tracking error volatility to get deviations from the benchmark, the authors analyse the actual portfolio holdings against the benchmark holdings: those funds with the highest Active Share significantly outperform their benchmark indexes both before and after expenses, while funds with the lowest Active Share underperform.

Conventional wisdom, and classical portfolio theory, suggest that investors should widely diversify their holdings across industries to reduce their portfolios idiosyncratic risk. Fund managers, however, might still want to hold concentrated portfolios if they believe some country areas, style management or sectors will outperform the overall market or a benchmark representing it. Indeed, in the same line of Keynes 1984 approach, skilled fund managers could have informational advantages in specific sectors and benefit from them to get superior performance by holding more concentrated portfolios and selecting profitable stocks in specific sectors. Consistent with this hypothesis, we expect to observe a positive relation between fund performance and industry concentration. Nanda et al. 2004 provide evidence that fund families following more focused investment strategies across funds perform better, likely due to their informational advantages. Similarly Kacperczyk et al. 2005 find that mutual funds with above-median industry concentration perform better after adjusting for risk and style differences using the four-factor model from Carhart 1997.

Beyond the informational advantage, there are further explanations for superior returns produced by portfolios with a higher style consistency. According to Huij and Derwall 2011 the relation between portfolio concentration and performance is driven by the breadth of the fund strategies (see Grinold and Kahn 2011 for the notion of breadth). They show that concentrated funds with higher levels of tracking error and breadth display better performance than their more broadly diversified counterparts.

Another likely driver for managers' behaviour is that the investor community evaluates more accurately managers with consistent styles, who do not roll their investment style from one to another, period by period. In this regard, Ainsworth et al. 2008 observe that Australian equity fund managers appear to alter their security holdings specifically to avoid drifting too far away from their self-stated investment styles. Similarly, Brown et al. 2009 demonstrate that funds that are the most consistent in their investment styles over time, due to a lower portfolio turnover, outperform less style-consistent funds on a risk-adjusted basis.

Actively managed funds are easily exposed to overconfidence, as managers might overrate the degree and the quality of the information they possess. Overconfidence has been analysed in the context of cognitive bias (see Daniel et al. 2001 and Cheng 2007), but scant attention has been paid to the role it might play over the investment decision process. A notable exception is the Busse et al. 2007 working paper, finding a positive relation between mutual fund performance and managers' willingness to take big bets in a small number of stocks.

Particularly, when dealing with local asset pricing models, a manager might be subject to behavioural bias due to his/her confidence with domestic firms (cf. Van Nieuwerburgh and Veldkamp 2009). The average size of home bias in both bond and stock markets is found to be much larger in emerging countries than in developed countries by Kim et al. 2014, possibly due to higher informational asymmetries among domestic and foreign investors.

To date, there has been very little research on whether portfolio concentration is related to fund performance in BRIC markets. To give a preliminary account on the subject, using BRIC market equity fund data from 2009 to 2014, we construct fund clusters with local and non-local BRIC managers and analyse the impact of active policy,

which do not passively replicate the local market indices, on performance and risk. We also try to emphasise the potential role of overconfidence in active management policies.

1. Activism and Overconfidence

Crucial to the scope of this study is identifying a methodological definition and a measure to quantify the level of “managerial activism”. To this end, we identify active managers as those who do not pursue a pure diversification strategy, but focus on securities with whom they have information and feel confident, in order to beat the market and earn positive alpha.

The overconfidence is identified as a cognitive bias where risk perception is distorted by subjective experience. As a general rule, subjective risk perception tends to reduce when we are familiar with the risk source, despite there is no actual risk reduction; therefore domestic shares can thought as less risky, just like the car we drive every day is not perceived riskier than the occasional flight.

Inconsistency between self-declared confidence and objective accuracy is analysed in a well-known experiment by Oskamp, where the researcher shows how “accuracy did not increase significantly with increasing information, but confidence increased steadily and significantly” (see Oskamp 1965). Active traders, being mostly informed agents, are strongly exposed to these cognitive errors.

2. Empirical Analysis

How do we measure activism and confidence on a large scale? To compare the relationship between information, skills, and overconfidence we cluster the funds by geo-focus and manager residence. Specifically, to investigate the relation between concentration and the local bias we use local market proxies. The research approach can be summarized as follows. Suppose we compare a Russian manager managing a generic fund and a non-Russian manager managing a Russian focused fund. What if there are more Russian stocks in the first fund? There are two possible explanations. A rational explanation is: the Russian manager has superior information on (some) Russian stocks and is driven by active policies focused on those stocks. A behavioural explanation is: The Russian manager is overconfident in his power to know and manage Russian financial information and is driven by an emotional commitment with Russian stocks. Obviously, this reasoning can be easily extended to ‘Brazilian’, ‘Chinese’ ‘Indian’ funds/managers. Good quality information can be exploited with an active management strategy, focused on the specific stocks for which there is the superior information, therefore deviating from a passive index replica. To this end, we need to control with a global index (e.g. S&P 500) to capture portfolios which are not local-index focused, but still locally focused. To better assess the factor focus, we can contrast sensitiveness of different types of managers’ portfolios to local factor indices and generic local indices.

In order to test these hypotheses, the general linear model used for tests is:

$$R = XB + U$$

where:

R_{ti} is the return of the i -th fund at time t .

X_{tk} is the local or global index, and the first column of X is 1.

As for the data set, it is comprised of Bloomberg equity funds for the whole period 2009-14, where the fields “Country of Domicile”, “Geographic Focus”, “Manager Location” show a value among “Brazil”, “China”, “India”, or “Russia”. We use the S&P500 index as a global market proxy and we use the following local proxies: Brasil Sao Paulo Stock Exchange Index (IBOV:), Moscow Exchange Index (MICEX), India National Stock Exchange CNX Index (NIFTY), Shanghai Shenzhen CSI 300 Index (SHSZ300).

As regards the effects that selection bias and survivorship bias, described in Brown et al. 1992, could have on the results of this study, we think that this bias effect are likely to be insignificant, (see Huij and Derwall 2011 analysis). Our return-based analysis includes all funds that existed during our sample period, so we expect that our results are sensitive neither to selection bias nor to survivorship bias.

In Tables 1-4 we see how the local and global index are able to explain BRIC returns, contrasting the local/non-local managed funds. A fund whose returns are well explained by the local index and not by the global proxy is to be considered a passive (index-replicating) fund.

Table 1. This table shows the extent to which the Brazilian fund returns are explained by the local or global index.

	Dependent variable:			
	vecR Domicile (1)	Geofocus (2)	LocalManager (3)	NonLocalManager (4)
IBOV	0.071***	0.186***	0.109***	0.243***
SPX	-0.003	-0.0003	-0.042	0.035***
Constant	0.002***	0.002***	0.002***	0.001***
R ²	0.019	0.103	0.001	0.212

Table 2. This table shows the extent to which the Chinese fund returns are explained by the local or global index.

	Dependent variable:			
	vecR Domicile (1)	Geofocus (2)	LocalManager (3)	NonLocalManager (4)
SHSZ300	0.544***	0.484***	0.579***	0.370***
SPX	0.031***	0.135***	0.047***	0.462***
Constant	0.0001	0.0004**	0.0002	-0.0001
R ²	0.444	0.402	0.473	0.352

2.1. Risk and Performance Analysis

The second step of the analysis consists in assessing how well the different fund clusters (managers) perform.

We conjecture that, whereas funds with local managers perform better, that is a signal of the good quality of their “local” information. With symmetric reasoning, if funds with local managers perform worse, that is a signal of the managers’ overconfidence in their own information/skills.

Table 3. This table shows the extent to which the Indian fund returns are explained by the local or global index.

	Dependent variable:			
	vecR Domicile (1)	Geofocus (2)	LocalManager (3)	NonLocalManager (4)
SENSEX	0.287***	0.454***	0.341***	0.909***
SPX	-0.011*	-0.018**	-0.014**	0.043***
Constant	0.001***	0.001***	0.001***	-0.0003
R ²	0.226	0.365	0.341	0.561

Given the scope of the analysis, manager performance is related to the local indices in terms of excess return and risk-adjusted performance (cf. Eling et al. 2011):

$$e_i = E(r_i - r_b) \text{ and } \Psi_i = \frac{E(r_i - r_b)}{(E^{1/q}(r_i - r_b))^q}$$

where:

r_i is the i -th funds return,

r_b is the benchmark return (specifically with respect to our analysis, the benchmark is the local BRIC index).

Table 4: This table shows the extent to which the Russian fund returns are explained by the local or global index.

	<i>Dependent variable:</i>			
	vecR Domicile (1)	Geofocus (2)	LocalManager (3)	NonLocalManager (4)
INDEXCF	0.620***	0.554***	0.578***	0.662***
SPX	0.040***	0.052***	0.019*	0.182***
Constant	0.001***	0.001**	0.001***	-0.001**
R ²	0.575	0.252	0.501	0.320

To contrast managers who seek performance playing it safe from those taking big(ger) bets, Ψ_i scales performance with a measure of downside risk defined as the left partial moment (or lower partial moment) of order q , which means that the only penalizing volatility is the harmful one, below the benchmark. Specifically, $q = 2$ entails the Sortino-Satchell ratio (cf. Sortino and Satchell 2001).

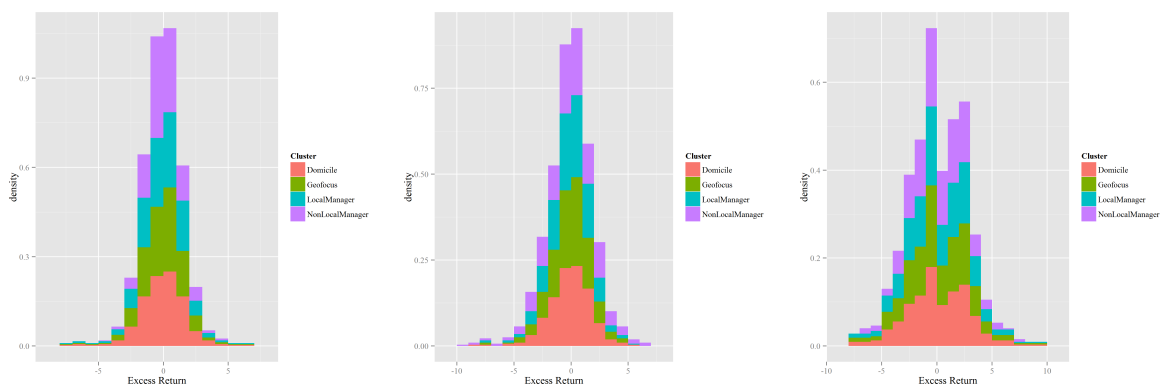


Fig. 1. Excess-return performance for (a) Brazil, (b) China, (c) India.

Figures 1(a, b, c) and 2(a) show the excess returns with respect to local benchmarks for the different BRIC countries, contrasting the local/non-local managers. These results should be read together with Tables 1-4 to test if active managers, as identified there, perform better or overrate their private (local) information. The results are then presented again in terms of risk-adjusted performance in Figure 2(b), showing the average Sortino-Satchell ratio for each country and for the different managers' clusters.

Different BRIC countries exhibit different behaviours. Some similarities can be observed between China and Russia in their attitudes toward non-local concentration of portfolios. Anyway, we can say local managers tend always to be more focused/active and they can perform better when their performance is scaled with the risks taken (via Sortino-Satchell ratio), except for China.

We also implemented a factor analysis (not included here), which did not reveal strong differences among fund clusters.

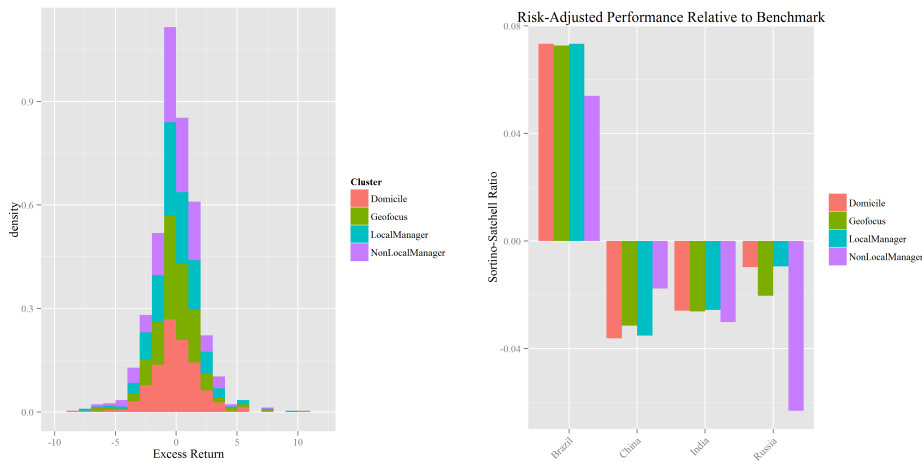


Fig. 2. (a) Excess-return performance for Russia. - (b) Average Sortino-Satchell ratio by country and cluster.

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