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Locals do it better?

An empirical study of local advantage in fund management

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<u>Abstract</u>

This paper will address whether local Japanese fund managers outperform international -or more specifically Nordic- fund managers when investing in the Japanese market. If local fund managers do in fact have an advantage with respect to domestic assets it could be profitable for international fund families to outsource their activities to local firms. Starting from the article "Do local analysts know more? A cross-country study of performance of local analysts and foreign analysts."¹, we have used a similar approach but focused on one specific geographical area, as well as focused on actual returns as opposed to forecasted returns. As hypothesized, we found that that the domestic Japanese fund managers outperform their Nordic counterparts.

 ¹ Bae, Kee-Hong, René M. Stulz, and Hongping Tan. "Do Local Analysts Know More? A Cross-country Study of the Performance of Local Analysts and Foreign Analysts." *Journal of Financial Economics* 88.3 (2008): 581-606. Print.

Introduction

The question of fund management performance is becoming ever more important. Approximately 76% of the Swedish population is currently holding possessions in funds of which a majority are actively managed equity funds.² The performance of these funds is frequently discussed in the media and managers who do not outperform their benchmark are badly portrayed. Also, due to political reforms and a possible upswing in the economy, the Japanese market is becoming more attractive for investors and all major Nordic banks or financial institutions currently hold at least one fund each that focuses on the Japanese market. In this context, this thesis tries to examine whether funds originating in the Nordic countries and investing in the Japanese market, have received greater or lower returns than mutual funds with the same objective managed by Japanese firms. Clearly, investors who are buying shares in funds managed by Nordic companies want to achieve the highest possible return, and if it is shown that Nordic managers cannot outperform their Japanese counterparts, investors in this sector should perhaps seek to invest in a fund managed by a Japanese company. We hence investigate whether Japanese mutual funds do in fact outperform funds managed by firms from outside Japan. This aspect of financial economics has been widely discussed and is, along the issue of home bias, the focus of many academic articles.

We find that domestic managers do in fact outperform foreign managers, and the outperformance is significant, both economically as well as statistically. We estimate that the Japanese managers outperform their Nordic counterparts by 2.8% on a yearly basis. This result is achieved by analysing monthly returns for 20 mutual funds, 10 Nordic and 10 Japanese. We control for fund-specific characteristics by including the management fee as an explanatory variable. The reason for this outperformance can intuitively be explained by information asymmetry, but that issue is beyond the scope of this essay.

Furthermore, we find that the market is a big factor in explaining the return of all the mutual funds. This perhaps comes as no surprise, but what is interesting is how closely managers seem to follow the market, in this case the Tokyo Price Index, Topix. There is an interesting discussion in economic circles concerning the question of whether investors should forgo actively managed funds and invest in more simple and passively managed funds, sometimes

² Fakta: 8 Av 10 Svenskar Sparar I Fonder." *Fakta: 8 Av 10 Sparar I Fonder*. N.p., n.d. Web. 08 June 2014. http://www.fondbolagen.se/sv/Statistik--index/fakta-8-av-10-sparar-i-fonder/

referred to as "trackers". The main argument supporting this method is simply that active management of assets cannot beat their benchmark or the market over time. Some highly skilled fund managers might have a good run for a couple of years, but eventually the market will outperform them. However, this is no cause for concern, especially not for those who believe in efficient markets. The Efficient Market Hypothesis (EMH) states that all available information is reflected in the price of an asset, and that the market reacts in a rational way when new information is made public. If the EMH holds, it would be impossible to consistently outperform the market in the long run. This aspect of fund management is interesting, but out of the scope of this essay.

Furthermore, the subject of domestic versus foreign outperformance is frequently debated in a number of articles, and many have tried to define or illustrate what causes these outperformances. In many essays emphasis is put on Home Bias, which in most cases refers to the fact that international investors tend to be biased towards having more assets in their portfolio allocated at their respective home markets. However, in this essay, the focus lies on home bias in the aspect of whether one is more successful in investing in one's home market. Kang and Stulz³ are examining the home bias in Japan and also look at foreign investors in Japan. They conclude that foreign investors are performing worse when investing in Japan since they tend to put disproportionately more of their assets in large companies. By doing so, the investors increase their volatility but not their expected return. In another article, Dvorak⁴ finds that investors in Indonesia benefit more in the long run from using a global broker when investing on the Jakarta stock exchange rather than if they were to use a local broker. Dvorak's findings could be said to contradict the thesis of this essay, but we want to emphasize that Indonesia is an emerging economy whilst Japan is a more mature market and its economy is similar to the economies in Europe and the U.S. Moreover, Bae, Stulz, and Tan⁵ find that local analysts consistently outperform their international counterparts in a study of analysts in 32 different countries. They mainly ascribe this outperformance to contrasting transparency regimes, but also to the overall distance between an analyst and the market that he or she is

³ Kang, Jun-Koo, and René m. Stulz. "Why Is There a Home Bias? An Analysis of Foreign Portfolio Equity Ownership in Japan." *Journal of Financial Economics* 46.1 (1997): 3-28. Print.

⁴ Dvořák, Tomáš. "Do Domestic Investors Have an Information Advantage? Evidence from Indonesia." *The Journal of Finance* 60.2 (2005): 817-39. Print.

⁵ Bae, Stulz, and Tan (2008)

investigating.

Our maintained hypothesis is that domestic managers are able to outperform their foreign counterparts when looking at the returns of a number of Japanese and Nordic funds. It is true that there are cultural differences between Japan and the Nordic countries which are factors that we believe might explain part of the over-performance. Another possible explanation could be that the disclosure practices of Japanese firms are significantly different from what the Nordic managers are used to, which would affect the analysis of the companies they are investing in.

The paper proceeds as follows, the next section is the Literature review, where we look at three influential articles more in detail, after that follows the Theoretical models, where we briefly explain some of the theoretical ideas and models that we use in this paper. Subsequently comes the Data section where the data is described and discussed, following that is the Methodology section explaining the overall econometric operations that we execute. After that we present tables from Stata in the Output section, with brief comments following that in the Results section. Finally we arrive at the conclusion section where we expand our arguments and problematize our results and theories.

Literature Review

When reviewing previous work on the subject of whether local investors tend to have an advantage in a given market, there are arguments that support this statement as well as those that oppose it. Some of the local advantage depends on the type of market that is being investigated; more mature markets should be more compliant with international standards for transparency and disclosure while less developed markets are more difficult to observe from an outside perspective. The Japanese market is considered a mature financial market where firms can be expected to hold high standards. However, the Japanese culture is very different from the Nordic countries, which implies that information asymmetries could arise. Kang and Stulz⁶ look at foreign investors in Japan, and even though their focus differs slightly from the focus of this essay, by focusing on what types of equities that foreign investors hold, it is an interesting article. They conclude that foreign investors in Japan tend to over-invest in large firms, perhaps because they have less knowledge of smaller firms. This leads to more volatile portfolios for the foreign investors but without an equal increase in expected return, which would justify the higher

⁶ Kang and Stulz (1997)

volatility. It is thus concluded that foreign investors are not as good as domestic ones when investing in Japan.

One question that could be asked is what would make domestic investors outperform foreign investors. A possible answer to this question is that domestic investors tend to have access to more and better information. After comparing data of analyst performance in 32 different countries, Bae, Stulz, and Tan⁷ found that local analysts outperform foreign analysts in a majority of the countries. They associate this outperformance with the fact that the domestic analysts are better informed and that they are closer to the firms they are analysing. It was also concluded that the local advantage was stronger in countries where disclosures were weaker which supports the belief of information asymmetries between local analysts and foreign ones. The article stresses the fact that distance to the market plays a crucial role when analysing a company.

Another question to be asked is whether domestic investors actually can profit from their advantage over their foreign counterparts. In a study from 2005 Dvorak⁸ finds that domestic investors in Indonesia have a short-lived information advantage, meaning that they have greater profits in the short-run while clients of global brokerages have greater long-run profits. The author concludes that this is consistent with the hypothesis that clients of global brokerages can benefit from greater experience and bigger organizations, which makes the larger, global brokerages more profitable in the long run. Indonesia is however an emerging market while Japan is a more mature market. The financial institutions in Indonesia do not carry the same influence as their Japanese counterparts some of which are the biggest banks in the world. Dvorak's essay is however interesting because it shows how firm characteristics might affect the performance of investors.

Theoretical models

We will in this section present and discuss some of the theoretical models and methods that are used in this essay. This discussion will be rather brief, as we have only used these methods to a certain extent.

The Capital Asset Pricing Model (CAPM) is a fundamental model in financial theory. It

⁷ Bae, Stulz, and Tan (2008)

⁸ Dvorak (2005)

describes the relationship between the risk associated with a security and the payoff, which is the expected return. The model can be described by equation 1.

Equation 1

Locals do it better? Danielle Bersztel & Otto Jacobsson Where r_i is the return on the security in question, r_f is the risk-free rate, β_i is the beta of the security -which is a measure of the risk of the asset-, and r_m is the market return. This model fundamentally describes the relationship between the possibilities of taking higher risk in order to increase expected return.

In this thesis we are also working with a Multiple-Factor Model, a model that employs a number of factors when trying to explain a market phenomenon and/or equilibrium price of an asset. Our model is specified as follows;

 $\underline{Equation \ 2}$ $(r_{it} - r_{ft}) = \alpha + \beta(r_{mt} - r_{ft}) + \gamma(Japanese) + \delta(MgtmtFee_i) + \varepsilon_{it}$

An explanation of the model we employ can be found in the Methodology section further on in this essay. An apparent problem of the model is that it is nowhere specified what or how many factors you should include. The model is thus more complex than for example the Single-Factor Model.

In this essay, we are also working with a number of econometric methods in order to explain the difference in return between the Nordic and Japanese securities. Since the returns in this study have been collected at certain points in time, our regressions will be in the form of Panel Data. Consequently, our regressions in the Stata data software are estimated as a Random Effects Model since our dependent variable varies over time. To confirm that our regression should be a Random Effects Model and not a Fixed Effects Model we have also carried out a Hausman Test, which confirms the usage of a Random Effects Model. The Random Effects Model indicates that there are no fixed, time -invariant effects in the error terms thus allowing individual effects on the model.

These are the theoretical models that have been used in this essay. Focus has been on the CAPM, Panel Data and the Random Effects Model. In the following section follows a description of the Data used in this study and a description of how it has been adapted to fit the previously described models.

<u>Data</u>

The objective of this section is to describe the data, how it has been collected and how it has been transformed. The primary focus of this essay is the return on a number of open-ended mutual funds; the return is hence our explanatory variable that this essay, to some degree, seeks to explain. The fund returns used are expressed in the form of change in monthly return covering the time period from 03/31/2004 to 02/28/2014. The chosen time period of one decade was chosen in order to get a profound overview of how the different funds have performed in good times as well as during financial crises. The relatively long time interval does however limit the number of available funds. This trade-off between a larger number of funds and a longer period of time was a decision we had to make, but chose the latter in order to account for fluctuations in the market. The collected funds are then divided into two separate subsets, one containing the Nordic funds and one containing the Japanese funds. We wanted to find equal numbers of funds from each geographical area that met our criteria, and we wanted these funds to be controlled by major financial institutions in the respective countries. This is done to get a sample of funds that have both retail investors as well as institutional investors. Hence we chose ten funds, on what could perhaps be argued to be subjective grounds. We instead argue that these funds are representative because they are the most well known in their respective countries as well as easily accessible.

The Nordic funds have been selected using some specific criteria. Firstly, the primary asset focus of the collected funds is equities, and their geographical focus is Japan. To ensure that the funds are actively managed, meaning that no index funds are in the sample, the selected funds have to have a management fee larger than 0.5%. This variable also lets us, partly, control for firm- or fund-specific characteristics. This variable is called *MgmtFee*, and it is in the form of percentage units. The fee is set for the respective fund during the whole time-period, and hence fluctuations in the level of the fee are not represented. We make this trade-off since we have not found any information supporting that the managerial fees should have changed during the observed time period. The data that we do use is obtained through the Bloomberg information system.

Secondly, the returns of the funds are originally given in the currency in which the funds are traded. The currencies featured are SEK, DKK, NOK and EUR. Since the aim of this essay is to compare the returns of Nordic funds with the Japanese ones, and the difference is explained only by the nationality (or location) of the manager, it is imperative to control for whatever effect currency fluctuations might have on the data. The returns of the Nordic funds have therefore, in the Bloomberg terminal, been collected in Japanese Yen in order to control for the currency changes between each funds individual trading currency and the Japanese Yen. These adjustments on the returns should thus equal the returns of the funds free of individual managerial aspects, and in the same currency for all of the collected funds.

The Japanese funds feature similar characteristics as the Nordic ones. The main asset focus is equities, and the main geographical focus is Japan. The funds are traded in JPY and hence no adjustments are necessary in order to control for effects of currency fluctuations. In the same way as the Nordic funds the Japanese funds have to be actively managed and thus have a managerial fee. This fee is subsequently added back to the returns in the same way as for the Nordic funds, by including the fee as an explanatory variable.

An important aspect when dealing with mutual funds is that of survivorship bias, meaning that as the selected funds have existed since, or before, 2004 these funds and their returns in turn are biased since they have been successful enough to survive. However, this criticism does not fully apply here since the aim of the report is not to tell which Japanese funds have been successful enough to survive or what strategies for investing in Japan have been good for investors, the aim is solely to tell if Japanese funds have outperformed their Nordic counterparts. The survivorship bias could though be controlled for by including returns of miscellaneous funds with the same characteristics as above but that have been closed down.

Another major issue to consider when dealing with returns on mutual funds is tax; how it has been collected and how this affects the returns. This is a problematic area for us, as we have no way of really controlling for different tax rates for different investors. We know that the tax rate on dividend paid to Nordic investors in Japan is equal to 15.315 %⁹, but we have not been able to obtain detailed data on the dividend paid to the funds during our time period. For the domestic Japanese funds, the tax rate on dividends is equal to 20.315%¹⁰ but as with the Nordic funds we do not have any further information regarding dividends. There could possibly also be other fund taxes for the Japanese companies that we are not aware of but due to the complexity of this issue we will assume that the only tax paid is that on dividends, in which case the Nordic

⁹ Linn Hansson, manager HAJAPAN, Handelsbanken Japanfond, see correspondence in appendix

¹⁰ Japan: Increase to Withholding Tax on Dividends from Japanese Listed Equities." *Clearstream*. N.p., n.d. Web. 08 June 2014.

http://www.clearstream.com/ci/dispatch/en/cic/CIC/Annnouncements/ICSD/Tax/Japan/2013/A13180.htm

funds will have an advantage due to the lower tax rate. The differences in taxation and the lack of information concerning dividends is, however, still an issue that we are aware of, but we have no way of controlling for it as the situation stands today. Mutual funds do not, in general, pay tax on a yearly basis. The taxes are instead deducted from the investors' return when they sell their shares in the fund, according to the tax regulations in the country of the investor.

In both the returns of the Japanese and Nordic funds, as well as in the market return, the risk free rate of return has been subtracted. The risk free rate of return is represented by the Japanese Ministry of Finance Three Month Discounted T-Bill (bid yield) for the same time period as the returns. The subtraction of the risk free rate has been carried out in order to show the returns in terms of risk premium, which should give a more accurate measure of the fund performances.

The return on the mutual funds can be explained by a number of factors. The most important one for this thesis is the one called *JapanDummy*, which is a dummy variable where Japanese funds are equal to one, and Nordic funds are equal to zero. This variable is by far the most important for this thesis because the coefficient to this variable states whether the Japanese funds do in fact outperforms the Nordic ones and if so, by how much. Another important explanatory variable is the market return, which in this report has been chosen to be represented by the Tokyo Price Index (Topix). This specific index has been chosen since it is used as benchmark for a majority of the Japanese funds in our sample. The variable Market represents the market return.

There are also other factors that explain the return on the funds but which we had to omit due to insufficient information. Two of these are fund size, or fund wealth, and manager tenure. We did find current fund wealth but not sufficient data covering the whole observed time period for all of the selected funds. In the same way we did find manager tenure for most of the Nordic funds but barely any for the Japanese ones. The omission of these variables, as well as other variables that might explain the returns, will affect our results and a more in depth discussion regarding this issue can be found in the conclusion.

The resulting twenty funds (ten Nordic and ten Japanese) and their respective excess returns will be used as our dependent variable consisting of 2380 individual observations. After the above-mentioned calibrations have been carried out, the dependent variable can be considered useable. Correspondently, the described factors *Japanese, Market, and MgmtFee* will

be used as the explanatory factors explaining the given risk premiums. A list of the all funds used in this thesis can be found in the appendix.

Methodology

With the dependent and explanatory variables described in the Data section, the regression on the dependent variable can now be executed. We will in this section describe the methods we use to obtain our output.

The regressions will be made in the software programme Stata and our acquired data will be entered in the format of Panel Data with the specific observations linked to a specific point in time, t, when they were observed. Panel Data is used in econometric models when working with several different observations that have been collected for the same individual at different points in time. Our observations have been collected on a monthly basis for the same mutual funds for the past 10 years and are thus entered as Panel Data. As previously stated in the Theoretical Models part, our model is Equation 2:

 $\frac{Equation \ 2 \ (repeated)}{(r_{it} - r_{ft}) = \alpha + \beta(r_{mt} - r_{ft}) + \gamma(Japanese) + \delta(MgtmtFee_i) + \varepsilon_{it}}$

Where α represents our constant, β represents the coefficient for the market return, γ is the coefficient on the Japan dummy variable, δ is the coefficient on the Management Fee variable and finally ϵ_{it} is our error term. Since we are using Panel Data we need to determine whether our model is a Fixed Effects Model or a Random Effects model. This is determined by using a Hausman Test, which tests the hypothesis that the coefficients estimated by the efficient random effects estimator are the same as the ones estimated by the consistent fixed effects estimator. Since the calculated P-value is insignificant it can be concluded that our model is a Random Effects Model. This is likely explained by the fact that all variables used, except the Japan dummy, vary over time. When presenting the results in the next section we will therefore use the Random Effects version of our regression. In order to test for serial correlation we have also carried out a Wooldridge test for serial correlation in panel data. This test detects no serial correlation and thus the resulting regression can be said to be unbiased. The summary statistics, test results and resulting regression that can be found in the next section.

<u>Output</u>

Table 1 - Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Return Market	2380 2380	.0895378	5.844606 5.446554	-24.49 -20.64	21.522 12.52
MgmtFee	2380	1.6225	.3498717	.7	2.7
Japanese	2380	.5	.5001051	0	1

Table 2 - Summary of returns Japanese vs. non-Japanese firms

Japanese	Sum Mean	mary of Return Std. Dev.	Freq.
0 1	01642016 .1954958	5.8342053 5.8555219	1190 1190
Total	.08953782	5.8446058	2380

Table 3 - Summary of Market returns

Variable	Obs	Mean	Std. Dev.	Min	Max
Market	2380	.1165126	5.446554	-20.64	12.52

Table 4 - Hausman Test Outcome

. hausman fixed random

Coefficients				
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fixed	random	Difference	S.E.
Market	.9971739	.9972614	0000875	.0005556
SizeM	0000113	-6.86e-06	-4.48e-06	5.15e-06

b = consistent under Ho and Ha; obtained from xtreg B = inconsistent under Ha, efficient under Ho; obtained from xtreg Test: Ho: difference in coefficients not systematic chi2(2) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 0.83

Prob>chi2 = 0.6617

Table 5 - Wooldridge Test for Autocorrelation

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Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
F( 1, 19) = 0.002
Prob > F = 0.9671
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Table 5 – Final Regression:

Random-effects	GLS regress:	ion		Number	of obs	=	2380
Group variable	e: ID			Number	of group	ps =	20
R-sq: within	= 0.8766			Obs per	group:	min =	119
betweer	n = 0.3233					avg =	119.0
overall	= 0.8760					max =	119
				Wald ch	i2(3)	=	16787.22
corr(u_i, X)	= 0 (assumed	d)		Prob >	chi2	=	0.0000
Return	Coef.	Std. Err.	Z	₽> z	[95%	Conf.	Interval]
Return Market	Coef.	Std. Err.	z 129.54	P> z	[95% .9889	Conf. 9626	Interval] 1.019349
Return Market Japanese	Coef. 1.004156 .2319947	Std. Err.	z 129.54 2.59	P> z 0.000 0.009	[95% .9889 .0566	Conf. 9626 6974	Interval] 1.019349 .407292
Return Market Japanese MgmtFee	Coef. 1.004156 .2319947 0869211	Std. Err.	z 129.54 2.59 -0.68	P> z 0.000 0.009 0.497	[95% .9889 .0566 3374	Conf. 9626 6974 4903	Interval] 1.019349 .407292 .1636481
Return Market Japanese MgmtFee _cons	Coef. 1.004156 .2319947 0869211 0024269	Std. Err. .0077517 .089439 .1278438 .2016991	z 129.54 2.59 -0.68 -0.01	P> z 0.000 0.009 0.497 0.990	[95% .9889 .0566 3374 3977	Conf. 9626 6974 4903 7499	Interval] 1.019349 .407292 .1636481 .3928961
Return Market Japanese MgmtFee cons sigma_u	Coef. 1.004156 .2319947 0869211 0024269 0	Std. Err. .0077517 .089439 .1278438 .2016991	z 129.54 2.59 -0.68 -0.01	P> z 0.000 0.009 0.497 0.990	[95% .9889 .0566 3374 3977	Conf. 9626 6974 4903 7499	Interval] 1.019349 .407292 .1636481 .3928961
Return Market Japanese MgmtFee cons sigma_u sigma_e	Coef. 1.004156 .2319947 0869211 0024269 0 2.0605355	Std. Err. .0077517 .089439 .1278438 .2016991	z 129.54 2.59 -0.68 -0.01	P> z 0.000 0.009 0.497 0.990	[95% .9889 .0566 3374 397	Conf. 9626 6974 4903 7499	Interval] 1.019349 .407292 .1636481 .3928961

Results

The results from our regression and tests will in this section be presented thoroughly with

reference to the Final Regression Table above. Also, all major statistics associated with our results will be commented upon to different extents.

Holding other factors constant, our regression does in fact show that there is a positive difference in performance between Nordic funds and Japanese funds. Our resulting coefficient on the Japanese Dummy variable implies that when the dummy variable is equal to 1, that is when the fund is Japanese, this yields a monthly return that is 0.232% higher than if the dummy were to be equal to 0, as for the Nordic funds. This consequently equals a yearly return that is 2.78% higher for the Japanese funds. This result can be said to be economically significant and the t-value of 2.46 shows that the result is also statistically significant on a 95% significance level.

When comparing this result to previous research, we find that our result broadly matches that of previous studies but this is somewhat problematic to discuss in absolute numbers. As previously mentioned, Bae et al¹¹ find that domestic analyst outperform their international competitors and that the average forecast accuracy of local analysts exceeds the average forecast accuracy of foreign analysts by 4.72%. It is however hard to compare our figure of 2.8 % with their results as there they have studied local analysts while we have studied actual returns. It can, however, still be concluded that in both cases local actors outperform foreign ones and that these outperformances are both statistically and economically significant. The paper previously referred to by Stulz¹² also confirms the existence of a home bias among Japanese investors. The main focus of this paper is, however, on the volatility in the portfolios of domestic Japanese managers versus the portfolios of foreign investors. It is thus complicated to compare our result of a 2.8% higher return for domestic Japanese funds with the results reached in previous studies. We therefore recommend further studies to be made, either using our geographical areas, or other ones. The results of these studies could then be compared to ours in order to draw more absolute conclusions on the issue of local advantages.

Looking at the other explanatory variables we detect a positive correlation of market return on our fund returns. The coefficient on the market variable is equal to 1.004, which indicates that an increase in the Topix by 1% will result in an overall increase in return of our funds of about of 1.004%. This number is thus economically significant and its t-value of 115.22

¹¹ Bae, Stulz and Tan (2008)

¹² Kang, Jun-Koo, and René m. Stulz (1997)

makes it statistically significant on a 99% significance level. One variable that is not statistically significant at a 95% significance level, only at a 65% significance level, is the Management Fee parameter. The coefficient is equal to -0.087, indicating a weak and negative relationship between the fee taken by managers and the return on the security.

The overall R-squared of our regression is equal to 87.6% meaning that the regression is successful in explaining a majority of the factors that play a role in determining the return of our observed securities. This statistic suggests however, that there are some parameters that should be included in the regression to obtain a more accurate result.

The results have been presented briefly, and some comments have been made. We now move on to the conclusion, where thoughts on these results will be expressed.

Conclusion

In this section we will try to outlay our thoughts on the above-mentioned results, what might affect the results, what implications they might have and what further research that can be done. As previously mentioned, our initial hypothesis is that local Japanese investors hold an advantage over foreign investors when investing in the Japanese market. There are several factors explaining this advantage, some of which will be commented upon in this section.

Our resulting regressions show that Japanese mutual fund managers do in fact outperform their Nordic counterparts. In addition, the difference in performance is considerable, 2.8 % on a yearly basis. This result is statistically significant on a 95% significance level. As previously discussed, this difference in return can be due to a number of factors. The first possible explanation, and probably the most important one, is that of cultural difference. Japan is both culturally and geographically distant from the Nordic countries, something that is also reflected in the financial markets. The cultural differences that are most likely to improve the local investors performances are language advantages and the proximity, which gives a better insight in the companies that they are investing in. Unfortunately the full impact of cultural differences is out of scope for this essay, but we would encourage further research on this topic. A second explanation, which is linked to the issue of culture, is that of disclosure practices. If Japanese firms are not as transparent as one would require, traditional financial analysis might not suffice.

As discussed in the essay by Bae, Stulz and Tan¹³, domestic analysts can take into account unconventional information regarding the firms they are analysing, e.g. watching their production sites etc. This would suggest that the distance to the market affects the results of the investor or analysts. However, this effect should be more apparent in an emerging market where disclosure practices are weaker and not as apparent in a mature market like the Japanese one.

The return on the market, in this case illustrated by the Topix, is highly statistically and economically significant. This can probably be explained by the fact that the funds follow index very closely. One question that could be asked is how fund managers are supposed to be able to achieve their goal of outperforming the market when they do not deviate from the market portfolio to any greater extent. The Management Fee variable is not statistically significant, nor especially economically significant but since we need to control for this variable it is justified to keep it in the sample. The fact that this variable is both negative and non-significant indicates that a more expensive fund with higher managerial fees do not necessarily equal higher returns, something that should be highlighted towards potential investors.

We also wanted to control for more firm -or fund- specific properties and the variable of fund wealth was initially included as an explanatory variable. This variable however had to be omitted, as we could not find sufficient data covering the whole observed time period. This is one example that illustrates the difficulties in working with mutual funds, the data may be hard to find and funds in different countries might be subject to different regulation. This is also apparent when looking at the taxation of the funds. We have to make a dramatic assumption by saying that we do not account for taxation in the return of the funds. We know that the dividends received by Nordic funds in Japan in subject to a tax rate that is lower than for Japanese firms, but since we do not have sufficient information regarding the dividends, or information of other taxation specific for the Japanese firms, we cannot include the different tax rates when calculating our results. If properly accounted for, the taxes paid by the funds or by the investors of the funds could very much affect our results and give a more reliable outcome. In the same way, whether the selected funds are available to all investors across the globe or not, has not been taken into consideration. It could be the case that the Japanese funds are only available to Japanese investors and vice versa for the Nordic funds. If this is the case, investors cannot benefit from the advantage of local investors but it could still inspire foreign funds to outsource

¹³ Bae, Stulz and Tan (2008)

their fund management activities to local Japanese funds in order to increase returns.

We also have not been able to control for the funds' individual risk levels, because we have not been able to include the beta-values of the funds as explanatory variables in the regression since this causes collinearity. This is a considerable limitation, which should be considered when interpreting the results. Further research in this area should therefore try to include some sort of risk measure.

Conclusively, this paper has examined the performance of Japanese and foreign, Nordic mutual fund managers investing in Japan, and concluded that the domestic managers outperform their foreign counterparts. Furthermore, possible explanations for this phenomenon have been examined, and where necessary, further research has been suggested.

Acknowledgements

Firstly we would like to thank our supervisor Evert Carlsson for all his insights and guidance with this paper. Thanks to various teachers at Handels who has taught us everything we know during these past three years and that has helped us with problems with Stata etc for this paper. Many thanks to friends and classmates that have offered to read and comment upon our work and finally we would like to acknowledge and thank our families for all the love and support.

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Appendix

Hausman Test:

The Hausman test tests the null hypothesis that the coefficients estimated by the efficient random effects estimator are the same as the ones estimated by the fixed effects estimator. If they are insignificant (P-value, Prob>chi2 larger than .05) then it is safe to use random effects. However,

if the P-value is significant one should use fixed effects.

Wooldridge Test for Autocorrelation in Panel Data

Serial correlation in linear panel-data models makes the standard errors biased which causes the results to be less efficient. A test for serial correlation in random- or fixed-effects derived by Wooldridge (2002) is attractive and frequently used because it can be applied under general conditions and is easy to implement. More in dept information regarding this test can be found in the article "Econometric Analysis of Cross Section and Panel Data". Wooldridge, J. M. 2002. Cambridge, MA: MIT Press

List of Funds used

(Fund Beta is an average of all individual Betas for each -monthly- time period and the fee has been collected from Bloomberg and is presumed to be constant over time.)

Fund Name	Manager	Currenc	Fund	Fee (%)
	Location	У	Beta	
Swedbank Robur	Sweden	SEK	0,98	1,42
Japanfond				
(swjapnf ss)				
DNB Japan	Norway	NOK	0,94	1,80
(vesjpan no)				
Folksam Aktiefond Japan	Sweden	SEK	0,93	0,70
(srfojap ss)				
Skandia Japan	Sweden	SEK	0,96	1,40
(skaajpn ss)				
SEB Japanfond	Sweden	SEK	0,93	1,50
(sebjapn ss)				
Nordea Japani Fund	Finland	EUR	0,95	1,60
(merasig fh)				
Lansforsakringar Japan	Sweden	SEK	0,96	1,55
(lansjpn ss)				
Jyske Invest Japanske	Denmark	DKK	0,96	2,00
Aktier				
$(jijp \ dc)$				
Handelsbanken Japanfond	Sweden	SEK	0,97	1,60
(hajapan ss)				
Danske Invest Japan Fund	Denmark	DKK	0,92	1,50
(dijp dc)				
Amundi Resona Value &	Japan	JPY	0,96	1,50
Growth				

(58311006 jp)				
Mitsubishi Ufj JP STK	Japan	JPY	0,97	1,50
Val55				
(03318003 jp)				
Shinko JP STK OP	Japan	JPY	0,94	1,70
Shinchoryu				
(0631199C jp)				
Sumitomo Mitsui Mid-and	Japan	JPY	0,76	1,50
Sml Stock				
(79311039 јр)				
Nissay Hermes	Japan	JPY	0,92	2,70
Stewardship				
(29311009 jp)				
Nikko Mutant	Japan	JPY	0,86	1,80
(02311009 jp)				
Asahi Life SRI Fund	Japan	JPY	0,78	1,78
(68311009 jp)				
Kokusai Japanese Dream	Japan	JPY	0,73	1,70
(11311002 jp)				
Daiwa SB J-Stock Active	Japan	JPY	0,84	1,50
Open				
(2231103B jp)				
Okasan Marufuku	Japan	JPY	0,92	1,70
Advantage OP				
(09311016)				

Mail correspondence with Linn Hansson, manager HAJAPAN, Handelsbanken Japanfond

(Conversation in Swedish with translation to English)

Hej Otto,

Nu har jag kollat upp vad Japanfonden betalar i skatt på utdelningar, 15,315% för att vara exakt! Intressant frågeställning, jag skulle kunna tänka mig att framförallt en long/short hedgefond borde ha en fördel av att vara närmre marknaden :). Lycka till med uppsatsen! Regards

Linn Hansson

Handelsbanken Asset Management

Hej Linn,

Det var vi som pratades vid på telefon strax innan lunch, tack för att du tar dig tid! Jag berättar vad vår uppsats handlar om så kanske det är lättare att förstå vad vi behöver för information. Vi jämför nordiska fonder som investerar i Japan, och japanska fonder som investerar i Japan. Det vi vill avgöra är om det finns ett s.k. "home bias" som gör att japanska förvaltare signifikant outperformar utländska förvaltare. Vi vill således kontrollera för ett antal faktorer, så som marknadsavkastning, fond-specifika drag, t. ex. fondstorlek, placeringsstrategi med mera. Vi vill också jämföra avkastning på fonderna som är rensade för skatteeffekter, och det är alltså därför vi vänder oss till dig, för att se hur utdelningar till fonden beskattas i Japan. Det vi framför allt vill veta är alltså till vilken procentsats utdelningar till fonden beskattas. Övriga skatt som tas ut är givetvis också intressant, men som vi sa på telefon betalar man väl i stort sett ingen annan skatt.

Stort tack för hjälpen!

Hello Otto,

I have now looked into what the Japan Fund in dividend tax, 15.315 % to be exact ! Interesting question I would imagine that especially a long / short hedge fund should have an advantage of being closer to the market :). Good luck with the essay ! Regards Linn Hansson

Handelsbanken Asset Management

Hello Linn,

We talked on the phone just before lunch , thank you for taking the time! I'll tell you what our paper is about so that it might be easier to understand what information we need. We are comparing Nordic funds investing in Japan and Japanese funds investing in Japan. What we want to determine is if there is a so-called "home bias " that makes Japanese managers significantly outperform foreign managers. By controlling for a number of factors , such as market returns, fund - specific characteristics , e.g. . Fund size, investment strategy and more. If possible, we also want to compare the return on the funds adjusted for tax effects, which is why we turn to you, in order to see how the dividends are taxed in Japan. What we want to know is thus what percentage is paid in dividend tax. Other tax collected is of course also interesting, but as we said on the phone, funds virtually do not pay any other taxes.

Many thanks for your help!