

Performance of Institutional Japanese Equity Fund Managers

By investment style.

Wenling Lin

The improved fundamentals and market performance of Japanese stocks since 2003 have generated new interest in investing in the Japanese equity market—this following evidence that open-ended Japanese equity funds substantially underperformed the Tokyo Stock Exchange First Section index (TOPIX) between 1980 and 1999. Researchers attribute the underperformance to manager factor bets, the tax-dilution effect, the transaction costs of high-turnover strategies, and the liquidity costs caused by volatile cash flows in and out of funds (Cai, Chan, and Yamada [1997], Brown et al. [2001], and Takehara and Yamada [2003]). After adjusting for these effects, however, researcher still find zero or insignificant positive risk-adjusted alphas.

These findings prompt us to ask whether active management is effective in Japanese equities investment. I reexamine this issue using an institutional manager database from Mellon Analytical Services, LLC.

Other studies have covered all types of retail mutual funds, including sector and balanced funds sold in Japan, but my dataset includes only institutional money managers with a Japanese equity mandate. They are located around the world, but most are based in the U.S., Japan, and the United Kingdom. The dataset consists of institutional separate or commingled accounts, rendering it immune to the institutional features of Japanese retail mutual funds such as tax dilution or volatile cash flows. Thus, the active returns in this universe should represent what institutional investors expect to get before management fees.

To understand the manager investment habits, I examine the appetite for risk shown by Japanese broad-market equity managers. Like their U.S. counterparts,

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Japanese equity managers typically have underweighted utility and mega-cap stocks relative to their benchmarks. Unlike U.S. managers, however, they have taken structural bets against Japanese banks and have included stocks with below-market price-to-book ratios in their portfolios. These structural bets gradually abated over the 1990s.

To estimate active returns adjusted for the banking underweight and cap and valuation bias, I use the French-Fama three-factor regression—that is, I regress manager returns on the market index returns in excess of Treasury

bill rates, value/growth return spreads, and small/large-cap return spreads.

My goal is to analyze these issues:

- What are the historical risk-adjusted alphas for Japanese broad-market equity funds and for small-cap equity funds? Since small-cap equity, in general, is less efficient than large-cap and is researched by fewer analysts, do small-cap equity managers on average deliver higher alpha than broad-market equity managers?
- Many researchers have found that style affects stock returns in the U.S. and other major countries.

Is style a significant factor in Japanese equity portfolio returns?¹

- Do Japanese-based managers perform better than foreign-based managers? Timely access to information and high-quality research may be more important than the fact of location by itself. I examine broad-market equity funds and small-cap equity funds in this regard.

INVESTMENT STRATEGY OF JAPANESE EQUITY MANAGERS

I note in Lin [2005] that managers in the Mellon Japanese equity manager universe tend to have a limited amount of cash and to hold fewer large-cap stocks and more mid-cap stocks than the TOPIX. Their portfolios exhibit a lower debt/capital ratio and a value bias. In their sector bets, Japanese managers persistently underweight financial and utility sectors, partly because of Japanese bank loan problems in the 1990s and slower growth in the utility sectors. Instead, they favor technology and consumer discretionary stocks.

To indicate the dynamics of manager risk-taking, I plot several important characteristics in Exhibits 1 and 2. Exhibit 1 shows that the value bias in the early 1990s shifts to a growth bias, and that the small-cap bias has narrowed over time. Exhibit 2 shows that sector deviation has declined over time, largely because of the decline in the financial sector bet.

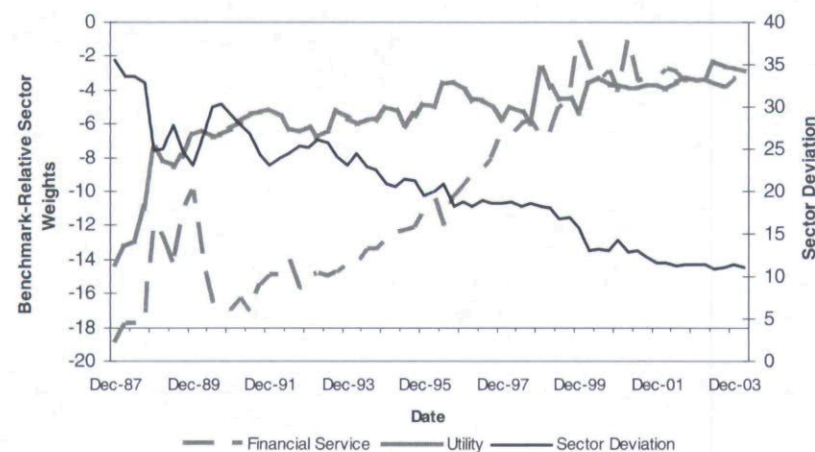
EXHIBIT 1

Reduction in Small-Cap Bias and Value Bias over Time



EXHIBIT 2

Reduction in Underweight of Financial Sector and Sector Deviation over Time



MEASURING RISK-ADJUSTED ALPHA FOR JAPANESE EQUITY MANAGERS

The goal of active management is to beat the passive benchmark. Active managers achieve this goal by designing investment strategies and exploiting market inefficiency. Their performance also depends on whether their investment style is in market favor. The stock-level analysis in Japan and the U.S. indicates the important factors characterizing stock returns and manager performance are valuation and cap size.²

To isolate skills from luck, I use the French-Fama [1993] three-factor regression model—market factor, cap-size factor, and valuation factor—to obtain risk-adjusted alphas.

The dependent variable in the regression is the quarterly average return of all managers in Mellon's Japanese equity universe in a given quarter in excess of the Japanese call rate (a proxy for the risk-free rate, denoted as r_{ft}). The regression is:

$$r_{p,t} - r_{f,t} = \alpha + \beta_m (r_{m,t} - r_{f,t}) + \beta_v (r_{v,t} - r_{g,t}) + \beta_s (r_{s,t} - r_{l,t}) + \varepsilon_{i,t} \quad (1)$$

where $r_{p,t}$ is the average managed portfolio return, α is the risk-adjusted alpha; β_m is the market beta; $r_{m,t}$ is the benchmark return; $r_{v,t} - r_{g,t}$ is the value index return minus growth index return, and β_v is the corresponding value beta; $r_{s,t} - r_{l,t}$ is the small-cap less large-cap index return, and β_s is the corresponding cap beta. The betas are estimated regression coefficients and measure the sensitivity of portfolio returns to the risk factors.

Typically, in institutional investing we measure managers' ability to beat the benchmark using their performance in excess of the benchmark return (alpha in this case). Under this model in Equation (1), the excess return is:

$$r_{p,t} - r_{m,t} = \alpha + (\beta_m - 1)(r_{m,t} - r_{f,t}) + \beta_v (r_{v,t} - r_{g,t}) + \beta_s (r_{s,t} - r_{l,t}) + \varepsilon_{i,t} \quad (2)$$

Hence, the risk-adjusted alpha is the same whether excess returns are relative to the risk-free rate or the benchmark index.

Exhibit 3 lists all explanatory variables for small-cap and broad-market equity funds.³ Russell manager research analysis indicates that before 1990 Mellon's Japanese equity manager universe included more non-Japanese firm managers who managed funds for non-Japanese institutional investors than it does today. Investors often assigned the MSCI Japan index as a mandate but gradually switched to the TOPIX after 1990.

Since 1997, the Japanese government has allowed Japanese pension funds to hire Japanese equity managers rather than rely on balanced fund managers to gain equity exposure. Since then, the Mellon universe has included more Japanese firm managers.

I thus use the MSCI Japan index as the pre-1990 benchmark. Japanese small-cap equity managers often invest in the securities traded in the TOPIX Section 2 or over-the-counter exchange (JASDAQ), so I use the TOPIX Section 2 minus the Russell/Nomura small-cap index (the benchmark) as the cap factor. The results for both universes are unaffected by the choice of different benchmarks, however.

EXHIBIT 3

Selected Factors and Corresponding Index Returns

	Broad Market Funds	Small Cap Funds
Market Factor	TOPIX Section 1 (dividend included) minus Call Rate after 1990	Russell/Nomura small cap index return minus Call Rate
Cap-Size Factor	MSCI Japan minus Call Rate before 1990 Russell/Nomura small cap minus large cap index returns	TOPIX Section 2 minus Russell/Nomura small cap index returns
Valuation Factor	Russell/Nomura Total Market value minus growth index returns	Russell/Nomura small cap value minus growth index returns.

ESTIMATES OF MANAGERS' RISK-ADJUSTED ALPHAS

The broad-market equity manager return is the real-time universe mean return of the Mellon representative Japanese equity universe before 1997 and the Japanese broad-market equity universe after 1997 when this universe was created. The small-cap equity manager return is the real-time mean return of the Mellon Japanese small-cap equity universe. Generally, manager returns are gross of management fees but net of transaction costs. All index and manager returns are denominated in Japanese yen.⁴

To examine the dynamics of manager alphas, I conduct CUSUM of squares tests on Equation (1). I find structural shifts from 1989 to 1998, and then divide the sample period from 1981 to 2004 into three subperiods. The first break point is 1990 when the equity and property market bubbles began bursting, and the second break point is 1997 when the Japanese "Big Bang" of financial reforms was introduced. In serially correlating residuals, I use the Newey-West [1987] correlation heteroscedasticity-consistent standard error.

Empirical Results for Alphas and Betas

Exhibit 4 shows that broad-market equity managers underperformed the TOPIX Section 1 by 433 basis points a year over 1981–1989. This underperformance was a result of two bets—taking less market risk during the bull market, and assuming a growth bias during the period when value outperformed. The managers' risk-adjusted alpha, about -18 basis points a year, is statistically zero.

In the 1990–1996 period, average broad-market equity managers delivered 227 basis points for adjusted alpha and 198 basis points for alpha a year. In the 1997–2004 period, the alpha and risk-adjusted alpha increased to 340 basis points and 415 basis points a year, respectively.

Taking less market risk helped, but adopting a growth bias hurt in the 1990–1996 period. After 1997, the market beta increased and the cap beta declined. These results are consistent with the portfolio's characteristics I have noted—greater small-cap bias but lower market beta in the 1990–1996 period than in the 1997–2004 period.

Exhibit 4 also shows that small-cap equity managers tend to have market-like beta, a growth bias, and positive exposure to securities traded in TOPIX Section 2 or

EXHIBIT 4

Estimated Beta and Risk-Adjusted Alpha for Broad-Market Equity Managers and Small-Cap Equity Managers

	Estimated Beta and Risk-adjusted Alpha					Annual Compound Returns		
	Risk-adjusted Alpha	Market Beta	Style Beta	Cap Beta	Adj. R2	Ann. Risk-adjusted Alpha	Portfolio	Index TOPIX (MSCI)
Broad Market Equity Managers								
1981:2-1989:4	-0.04 (-0.07)	0.94 (13.68)	-0.41 (-2.66)	0.35 (3.88)	0.87	-0.18	18.14	22.47 (22.94)
1990:1-1996:4	0.57 (1.04)	0.88 (15.02)	-0.50 (-3.07)	0.25 (2.95)	0.97	2.27	-6.46	-8.44 (-7.52)
1997:1-2004:1	1.04 (3.08)	1.03 (39.12)	-0.02 (-0.36)	-0.14 (-2.02)	0.98	4.15	1.32	-2.08 (-2.43)
Small-Cap Equity Managers								
1990:1-1996:4	2.87 (3.82)	0.94 (33.55)	-1.31 (-5.69)	0.31 (2.94)	0.97	11.47	-3.70	-10.12
1997:1-2004:1	0.44 (0.63)	0.95 (27.16)	-0.36 (-2.32)	0.83 (3.92)	0.95	1.76	7.24	0.76

T-statistics for estimated betas are in parentheses; Ann. risk-adjusted alpha is the four times (quarterly) risk-adjusted alpha, the constant term in the regression. The benchmark index for small-cap managers is the Russell/Nomura Small-Cap index.

JASDAQ. Their growth bias has declined, but the exposure to securities outside the Russell/Nomura small-cap index has increased. This non-benchmark security bet contributes most to their alphas in the 1997–2004 period, while the growth bias hurt their alphas in the 1990–1996 period.

In general, small-cap equity managers deliver higher alphas than broad-market equity managers. But, because the managers take different factor bets, the greater payoffs of the non-benchmark security bet for small-cap equity managers—the risk-adjusted alpha—were higher than that of broad-market equity managers in the 1990–1996 period but not in the 1997–2004 period.

The structural break tests examine whether all alpha and beta coefficients are statistically the same across sub-periods. The statistics show rejection of the null hypothesis of equal alphas and betas, indicating the changing behavior of broad-market equity managers and small-cap equity managers.

Robustness of Estimated Alphas to Various Models

I examine the impact of estimated alphas on three types of statistical models—inclusion of a bank factor;

inclusion of a price momentum factor; and the use of time-varying betas in the regressions. Analysis periods depend on the availability of the data.

Exhibit 5 summarizes comparisons of alphas and betas in the three-factor models and the new models for the same data periods.

Because broad-market equity managers underweight banks, to estimate this impact on alpha, I add the Russell/Nomura Bank Index return relative to the Russell/Nomura Total Market Index return as a bank factor in the three-factor regressions. Exhibit 5 shows significant negative bank beta before 1997 but insignificant bank beta afterward. This is consistent with the gradual reduction in banking underweight that took place during the 1990s shown in Exhibit 2.

The second panel in Exhibit 5 shows the 12-month price momentum effect on alphas and betas. This factor is the return spread between the top quintile (highest momentum) and bottom quintile (lowest momentum) of cap-weighted returns based on the past 12-month price changes.⁵

The annualized quarterly average of return spreads is –44 basis points from 1993 to 2004—similar to zero reward to price momentum in Japan—in Griffin, Ji, and Martin [2005] from 1975 to 2000. Contrary to

EXHIBIT 5

Robustness of Estimated (quarterly) Risk-Adjusted Alphas in Various Models

New Model	Risk-adjusted Alpha	Beta For New Factor	Risk-adjusted Alpha	Beta For New Factor	Risk-adjusted Alpha	Beta For New Factor	Adj. R ²
	1981:2–1989:4		1990:1–1996:4		1997:1–2004:1		
Add Bank Factor	-0.09 (-0.19)	-0.21 (-3.31)	0.35 (1.00)	-0.36 (-6.41)	1.02 (2.92)	-0.01 (0.23)	0.95
Without Bank Factor	-0.04 (-0.07)		0.57 (1.04)		1.04 (3.10)		0.91
	1993:4–1996:4		1997:1–2004:1				
Add Price Momentum Factor			0.68 (1.35)	0.07 (1.63)	1.00 (2.85)	0.01 (0.91)	0.98
Without Price Momentum Factor			0.90 (1.36)		1.04 (2.99)		0.98
	1986:4–1989:4		1990:1–1996:4		1997:1–2004:1		
Conditional Beta	-1.61 (-2.36)		0.16 (0.32)		1.03 (2.31)		0.94
Constant Beta	-1.84 (1.48)		0.57 (1.01)		1.04 (3.02)		0.94

results in Takehara and Yamada [2003] that show a significant price momentum effect on Japanese retail mutual funds, Exhibit 5 shows that institutional managers have insignificant positive exposures to the price momentum factor.

The conditional beta model, following Ferson and Schadt [1996] and Cai, Chan, and Yamada [1997], specifies betas as a function of the dividend yield, the interest rate, and long-term and short-term interest rate spreads. These variables can capture changes in investment opportunities undertaken by managers in response to changes in market conditions and perceivable risk.

Although the estimated risk-adjusted alphas in the three models differ by 1 basis point to 41 basis points a quarter, these results do not change the overall conclusions.

Comparison with Other Research

Annualized arithmetical averages indicate that institutional Japanese equity fund managers underperformed the MSCI Japan index by 434 basis points a year over 1982-1989, while retail well-diversified Japan equity funds underperformed the TOPIX by 950 basis points TOPIX over 1981-1992. They then outperformed the TOPIX by 253 basis points a year in 1990-2004 and 328 b.p. in 1991-1999 as against -173 b.p. a year in 1991-1999 for retail funds.

The disparities in performance between the two can mostly be attributed to two institutional features of Japanese retail equity markets—the estimated 1.2% to 3% for the tax-dilution effect and the estimated 1.10% to 1.95% for retail management fees and security transfer taxes.⁶ After accounting for both, the institutional fund managers outperformed the retail fund managers by an estimated 6 to 271 basis points a year.⁷

The underperformance before 1990 was due mainly to the managers' risk factors, such as less market risk, growth bias, and banking underweight. After I adjust for factor risk taken by broad-market managers, institutional broad-market equity managers earned on average zero or insignificant positive risk-adjusted alphas before 1997, and significant positive risk-adjusted alphas after 1997.

The dynamic pattern of risk-adjusted alphas generally agrees with results in prior studies, although the degree may vary depending on the estimation methods. These findings confirm the view of Brown et al. [2001] that the open-ended Japanese fund puzzle likely stems from the institutional features of Japanese retail mutual funds.

RISK-ADJUSTED ALPHA BY MANAGER STYLE AND COUNTRY DOMICILE

To classify managers into subgroups, I use individual manager data for 1990-2004 in the Mellon Japanese equity universe, including those that may not survive today. I then group managers by investment style and by their firms' domicile. My goal is to examine whether the subgroups of managers reveal differences in performance.⁸

Manager Styles of Broad-Market Equity Funds

A core element in equity investing is looking for the important risk factors that influence security pricing and then managing risk across these factors. Style also influences manager investment strategies. Christopherson and Williams [1995] demonstrate that U.S. institutional money managers follow different investment styles, and that their performance is correlated with Russell style index returns. Accordingly, investors may wonder whether there are manager styles in Japanese equity funds.

Russell uses fundamental research and quantitative portfolio-characteristic screening to classify Japanese equity managers into three styles—market-oriented, growth, and value. Typically, value managers look for cheap stocks with valuation ratios (such as price-to-earnings ratios) below the norm. They bet that the company will turn around and stock prices will increase to such an extent that the valuation ratio will revert to the norm. Growth managers look for companies with high expected growth rates. They bet that the company will deliver a higher growth rate than expected, and, should the valuation ratio remain the same, a higher growth rate will lead to a higher price. Market-oriented managers typically look for stocks with moderate growth or valuations or overlay their decisions with some sort of risk management so that their portfolios' characteristics are close to the benchmark.

I use Russell's classifications of manager style as the primary criterion for managers and their products. If a product for a manager does not have a classified style, I use Sharpe's [1992] effective mix to determine the style. The effective mix regression finds the optimal weights of the selected benchmarks that minimize the tracking error of the underlying portfolio and the weighted selected benchmarks.

The benchmarks are the Russell/Nomura Total Market index, Total Market Growth index, and Total Market Value index. If the weight for any benchmark is

greater than 0.5, I classify it as that style; if the weights are virtually even, I classify it as a market-oriented style. Some accounts are excluded because of the shortness of the data series. I average the returns of managers within the same style and conduct the regression analysis as before. The results are presented in Exhibit 6.

In both periods, as expected, value managers have a positive style beta (value bias) while growth managers have a negative style beta (growth bias). As expected, market-oriented managers tend to have betas between those of value and growth managers. The structural break tests indicate that growth and market-oriented managers have changed their risk-taking between the two periods—by reducing small-cap and growth exposures and by increasing market betas.

The last rows in Exhibit 6 investigate whether the alphas and betas of the different styles are equal. For example, in the alpha column of the 1990–1996 period, the Wald test statistic with chi-squared distributed, showing 7.64 with a probability of 0.02, indicates the rejection of equal alphas. The last rows of Exhibit 6 show almost all rejections except for the market beta in the 1997–2004 period.

In the 1990s, when the Japanese equity market was a large-cap and value-driven market, value managers

outperformed growth managers. It was challenging for value managers to deliver higher risk-adjusted alphas than growth managers. In the 1997–2004 period, the risk-adjusted alpha for average value managers increased by 80 basis points a quarter, but was still lower than that for growth managers in both periods.

These regression results indicate there are investment styles among Japanese equity managers.

Japanese versus Foreign Firm Managers

Growing interest in international investing has prompted more investors to allocate assets to foreign securities. But allocations to foreign equity have a home bias, as investors hold a lower proportion of foreign stocks in their asset allocation than the proportion suggested by the capital asset pricing model. For example, the portfolio of a typical Russell institutional client in the U.S. will include about 20% in foreign equity and 40% in domestic equity. Thus, local investors still play an important role in local equity markets.⁹

To meet increases in international investing, investment management firms have taken a variety of steps.

EXHIBIT 6

Quarterly Risk-Adjusted Alpha for Broad-Market Equity Managers by Investment Style

Dependent Variable	1990 Q1-1996Q4							1997Q1-2004Q1							
	Basic Stats			Regression				Basic Stats			Regression Stats				Testing
	A. Annual Alpha							A. Annual Alpha							
	Annual Alpha (Num)	Risk-Adj. Alpha	Risk-adjusted Alpha	Market Beta	Style Beta	Cap Beta		Annual Alpha (Num)	Risk-Adj. Alpha	Risk-adjusted Alpha	Market Beta	Style Beta	Cap Beta	Adj. R2	Break Test
Value Manager	2.37 (9)	1.85 (0.32)	0.08 (0.19)	0.88 (29.20)	0.28 (1.36)	0.18 (2.73)		5.27 (10)	5.24 (3.52)	0.88 (2.46)	0.95 (23.80)	0.23 (2.88)	0.22 (2.73)	0.96	4.13 (0.39)
MKO Manager	2.99 (31)	2.77 (3.44)	0.86 (2.83)	0.93 (40.75)	-0.35 (-2.25)	0.17 (3.49)		2.15 (60)	2.14 (2.32)	0.58 (2.14)	0.98 (32.68)	-0.03 (-0.42)	-0.03 (-0.52)	0.98	8.65 (0.07)
Growth Manager	1.93 (38)	1.49 (3.76)	0.94 (1.72)	0.85 (20.58)	-1.06 (-3.79)	0.40 (4.49)		3.93 (28)	4.40 (5.96)	1.49 (3.03)	1.00 (18.41)	-0.33 (-3.06)	-0.06 (-0.55)	0.94	16.05 (0.00)
Test for Equal Alpha or Beta between Styles			7.64 (0.02)	19.87 (0.00)	34.67 (0.00)	20.23 (0.00)				12.63 (0.00)	1.98 (0.37)	40.44 (0.00)	19.60 (0.00)		

T-statistics are in parentheses for beta and risk-adjusted alpha. Annual Alpha is the annualized compound return difference between managers and the benchmark. Num is the average number of managers per quarter. A. Annual Alpha is the annualized quarterly average of manager returns in excess of the benchmark return and its annual risk-adjusted alpha, calculating by annualizing (quarterly) risk-adjusted alpha. is in parentheses.

Companies with deep research resources might have offices in all the major financial centers in the world. Financial firms might diversify the demographics of their investment professionals. Foreign financial firms might hire Japanese analysts and portfolio managers to research and manage Japanese equity portfolios in Tokyo.

With advances in information technology, greater cross-border information flows, and the global presence of research efforts, all firms have better access to local sell-side research or local investment information. These developments cast doubt on whether domestic firm managers have an advantage over foreign firm managers.

But Japanese small-cap equity is more concentrated in companies with domestic-oriented markets and is often covered by few sell-side analysts. Small-cap research generally attracts less attention than large-caps, so contacts with corporate management and a better understanding of local markets are crucial. Accordingly, domestic firm managers

or foreign firm managers located in Japan may have an advantage over foreign firm managers outside Japan.

Following other researchers, I divide my research sample into Japanese firm managers and foreign firm managers based on country domicile of the public investment firms and, in the case of private partnerships or other types of organizations, on the nationality of the owners. I obtain the average returns of the portfolios for foreign firms and Japanese firms and conduct an analysis similar to the first tests of manager style. Exhibit 7 reports the results.

For the broad-market equity portfolios, in the 1990-1996 period, foreign firm managers or Japanese firm managers take similar bets, and test statistics in the last row indicate no significantly different market, style, or cap risk betas between the two. On average, foreign firm managers outperform Japanese firm managers by about 38 basis points for alpha and 88 basis points for risk-adjusted

EXHIBIT 7

Quarterly Risk-Adjusted Alpha for Managers by Country Domicile

Dependent Variable	1990 Q1-1996Q4							1997Q1- 2004Q1							
	Basic Stats			Regression				Basic Stats			Regression Stats				Testing
	Annual Alpha (Num)	A. Annual Alpha (Risk-Adj. Alpha)	Risk-adjusted Alpha	Market Beta	Style Beta	Cap Beta		A. Annual Alpha (Num)	Annual Alpha (Risk-Adj. Alpha)	Risk-adjusted Alpha	Market Beta	Style Beta	Cap Beta	Adj. R2	Break Test
Broad-Market Equity Managers															
Foreign Manager	2.55 (63)	2.20 (3.64)	0.91 (2.01)	0.89 (26.06)	-0.67 (-2.91)	0.31 (4.25)		3.96 (55)	4.02 (4.44)	1.11 (2.74)	0.97 (21.55)	-0.16 (-1.81)	0.07 (0.75)	0.95	7.83 (0.10)
Japanese Manager	2.45 (19)	1.92 (2.77)	0.69 (1.93)	0.87 (32.17)	-0.54 (-2.99)	0.31 (5.31)		2.02 (44)	2.07 (2.44)	0.61 (1.92)	1.00 (28.26)	-0.02 (-0.27)	-0.10 (-1.35)	0.97	24.67 (0.00)
Test for Equal Alpha or Beta			0.81 (0.37)	1.62 (0.20)	1.08 (0.30)	0.01 (0.92)				5.31 (0.02)	1.95 (0.26)	8.99 (0.00)	11.51 (0.00)		
Small-cap Equity Managers															
Foreign Manager	7.49 (19)	7.77 (11.16)	2.79 (4.71)	0.93 (21.90)	-1.09 (-5.18)	0.27 (1.71)		8.27 (22)	8.93 (4.36)	1.09 (1.88)	0.95 (21.72)	-0.37 (-4.01)	0.66 (5.31)	0.96	11.76 (0.02)
Japanese Manager	5.57 (7)	6.61 (12.16)	3.04 (4.15)	0.97 (18.56)	-1.54 (-5.89)	0.41 (2.09)		11.63 (7)	12.47 (5.76)	1.44 (2.01)	0.93 (17.25)	-0.35 (-3.05)	0.95 (6.21)	0.95	17.80 (0.00)
Test for Equal Alpha or Beta			0.27 (0.61)	1.62 (0.20)	6.55 (0.01)	1.12 (0.29)				0.53 (0.47)	0.22 (0.63)	0.08 (0.77)	8.34 (0.00)		

alpha a year, but the differences are not statistically significant.

In the 1997–2004 period, however, the risk-taking and alpha of foreign firm managers differed substantially from those of Japanese firm managers. Foreign firm managers have less of a small-cap bias but a greater growth bias in their portfolios, but they significantly outperformed Japanese firm managers by 195 basis points for alpha and 200 basis points for risk-adjusted alpha a year.

In analyzing the holding preferences of foreign and Japanese firm managers over 1985–1998, Hiraki et al. [2004] find that foreign firm managers invest more in large-cap export-oriented companies with less financial risk than Japanese firm managers. In the Mellon Japanese equity manager universe, foreign firm managers often competed against the MSCI Japan index in the early 1990s. My cap and style beta estimates are consistent with these two findings.

Brown et al. [2003] find no performance differences between Japanese firm managers and foreign firm managers over 1998–2001. After the April 2001 revision in the tax code, however, the performance of managers of Japanese firms suffered because they had to shift their style to accommodate more inflows of new money into their funds more than foreign firm managers did. The results here may reflect a shift as suggested by Brown et al. [2003].

Beyond differences in factor bets, Russell analysts believe differences in personnel and compensation systems can also explain performance differences. Performance-based pay systems tend to provide greater incentives to foreign firm managers and encourage risk-taking. But, since Japanese firms have begun implementing performance-based pay, Russell analysts have observed that this organization gap has narrowed.

Although the coverage of Japanese small-cap managers is limited, this analysis may give us a clue to the small-cap manager behavior. Japanese firm managers have a significantly greater growth bias and exposure to securities traded in the Tokyo Stock Exchange second section (or JASDAQ) than foreign firm managers. But their risk-adjusted alphas tend to outpace alphas of foreign firm managers by 100 basis points annually (not statistically significant) during the 1990–1996 period and 140 basis points during the 1997–2004 period.

Overall, the evidence on performance disparities between foreign and Japanese firm managers is statistically weak. Managers' bet-taking, along with the personnel

and compensation systems, are crucial in explaining the differences.

CONCLUSIONS

Institutional Japanese equity managers outperformed the benchmark index returns by 22 basis points a year before fees from the second quarter of 1981 to the first quarter of 2004.¹⁰ As with active managers in other asset classes, institutional Japanese equity managers have greater appetites for underweighting large-cap stocks and banks, or taking less market risk. These bets cause their alphas to fluctuate over a full market cycle. After adjusting for the factor bets, institutional broad-market equity managers delivered an estimated 77 to 195 basis points a year before management fees for risk-adjusted alpha from 1981 to 2004.¹¹

Historically, institutional fund managers have delivered higher alphas than retail fund managers. The tax-dilution effect and management fees explain a great percentage of performance differences. This finding accords with the view of Brown et al. [2001] that underperformance can be an artifact of the institutional features of retail funds.

Although the coverage of small-cap managers is limited, the preliminary analysis shows higher alphas for small-cap equity managers than broad-market equity managers. But most small-cap alpha results from the non-benchmark security bet. The Japanese small-cap segment is still under-researched and provides greater inefficiency to be exploited.

There are investment style differences among Japanese equity managers. Managers with different styles have distinctive factor bets and performance over different style cycles, and I have uncovered the importance of manager styles for alphas. Foreign firms perform better than Japanese firms in broad-market equity and Japanese firms perform better in small-cap equity—although the evidence for this finding is statistically weak. Bet-taking as well as the personnel and compensation systems account for the differences.

Investors who want to invest in this asset class should consider active management. They can select skillful active managers and construct a multistyle fund to manage the short- or intermediate-term factor risk. Also, understanding manager behavior and being aware of potential risk and threats for active alphas is essential for risk management. If investors want only to seek multiple alpha sources, Japanese equity can be fruitful for alternative investment strategies such as portable alpha or hedge funds.

ENDNOTES

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¹See Capaul, Rowley, and Sharpe [1993] and Fama and French [1998].

²See Chan, Hamao, and Lakonishok [1991] for the Japanese equity market and Fama and French [1998] for the international equity market.

³Faff [2003] finds that the index spreads and Fama and French factor returns are highly correlated. Therefore, my results are comparable with those in other research.

⁴The small-cap universe was created in 1992. Mellon does not have universe mean returns before 1992. Therefore, to fill the gap, I use the historical data for all manager accounts in 1992 to compute the average returns from 1990 through 1992. Because of limited coverage of managers in the small-cap universe and the limited presence of domestic managers in the broad-market universe prior to 1990, we need to interpret the results for small-cap equity managers and broad-market equity portfolios carefully before 1990.

⁵This method is slightly different from Carhart [1997], who uses all NYSE, Amex, and Nasdaq stocks to get the return spreads between the equally weighted average of firms with the highest 30% and the lowest 30% 11-month returns lagged one month.

⁶Takehara [1998] estimates about 1.2% of tax-dilution effects from 1981 to 1996 using actual offer prices. Cai, Chan, and Yamada [1997] estimate the effect is about 3.00% a year using the bootstrapping method and about 1.10% to 1.95% a year for retail management fees and security transfer taxes. Takehara and Yamada [2003] report that F. P. Soken estimates a fee of 1.2% a year for Japanese retail mutual funds. Because transaction costs are generally included in return calculations for both retail and institutional fund universes, fees are not included in computing return differences.

⁷The retail fund data in the Kinyu Data system include more Japanese firms, and the Mellon database has more foreign firms before 2000. The effects of cash flows and turnover strategies or different compositions of foreign and domestic investors may also drive the differences. A lack of data makes this kind of analysis beyond the scope of this research.

⁸As a new manager enters the Mellon universe, Mellon may collect historical return data before that date. Mellon will not use these historical returns to recalculate the real-time universe mean returns, but I use these return data to analyze the style and country domicile effects to increase my sample size. There may be a pre-entrance effect, which could be the reason for differences in the results in Exhibits 4, 6, and 7.

⁹Explanations of a home bias include incomplete market integration, market frictions including transaction costs, asymmetrical information with advantages in home markets, and preference for home but non-tradable goods. See Lewis [1999] for further detail.

¹⁰This is based on an annual compounded return difference between the manager returns and index returns. Index returns are MSCI Japan before 1990 and TOPIX Section 1 (dividends included) afterward.

¹¹These numbers are based on a weighted average of three risk-adjusted alphas estimated using a three-factor model, a time-varying beta model, and a four-factor model including the bank factor model in Exhibit 5.

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