Mutual fund performance: banking *versus* independent managers

J. C. Matallin-Saez [a,1] A. Soler-Dominguez [a] and E. Tortosa-Ausina [b]

[a] *Departamento de Finanzas y Contabilidad, Universitat Jaume I, 12070 Castellón –Spain*

[b] *Departamento de Economía, Universitat Jaume I, 12070 Castellón –Spain*

We examine the performance of mutual fund managers for a sample of Spanish mutual funds considering data on active management, loads, size and the number of funds managed per manager. We find evidence of differences in fund performance according to management: independent managers outperform their banking counterparts even when the lower associated fees are considered. Overall, our results suggest that superior active managers do exist and the slight discrepancies which arise between managers can be interpreted as agency problems.

---

[1] Corresponding author. E-mail: matallin@cofin.uji.es.

I. Introduction

In the context of mutual fund performance there is no clear evidence as to whether managers are able to add value. Results may differ for different methodologies or samples. The traditional evidence is that, on aggregate, performance is not significantly different from zero and in some cases is negative. However, Puckett and Yan (2011) report different positions for and against managers' skills in generating wealth and, among other studies, Rodriguez (2008) evidenced a positive added value for investors for a sample of European fund managers. Against this inconclusive background, this article focuses on the analysis of mutual fund performance relating active management to managers' profiles and other characteristics.

As the manager decision-making process is not easily observed, it is difficult to initially assess active management. Menkhoff and Schmidt (2005), Lütje (2009) and Menkhoff (2011) resolve this dilemma by directly asking managers in an attempt to capture their strategies and attitudes. However, as data on mutual fund results are more readily available, they are frequently used to infer active management. Hence, some studies have examined strategies and risk level of mutual funds: Flavin (2006), among others. Beyond the strategies followed by managers, agency problems have also been documented. One example is Mehran and Stulz's (2007) comprehensive review on conflicts of interest in financial institutions. Chen *et al*. (2007) compare active funds managed by insurance companies with other mutual funds, finding that the former underperform the latter. Alves and Mendes (2010) find that mutual funds tend to overweight the stocks issued by their parent and underweight the stocks of competitors, thus eroding the performance of fund investors. In contrast, significant side effects stem from the conflict of interest between independent managers and investors, which occurs because of managers' prioritizing career concerns

rather than shareholder interests [Kempf *et al*. (2009)]. In this context, we contribute to the literature by focusing on the profile of the professional manager –banking or independent– in mutual fund performance. Results show this role is related to the degree of active management of the portfolio and the loads charged to the fund. Manager profile could therefore be implemented as a key determinant in investors' selection of mutual funds.

II. Data and Performance Measurement

The empirical analysis uses a sample of Spanish mutual funds from July 1998 to March 2007. The sample is made up of all the domestic equity mutual funds with a net asset value during this period[2]. Following the Spanish Stock Market National Commission (CNMV), two types of funds can be distinguished: Balanced equity-bonds Funds (BF) and Equity Funds (EF). The daily return was calculated as the variation relative to the net asset value. Mutual funds data such as the net asset value, size and loads were provided by the CNMV.

Performance is measured exogenously by the multifactor linear model [1], widely used in mutual fund literature, whose expression is:

$$r_{pt} = \alpha_p + \sum_{j}^{J} \beta_{pj} r_{jt} + \varepsilon_{pt} \qquad [1]$$

where r_{pt} is the excess return, over the risk-free return, of portfolio p in period t. This return is adjusted to risk factors β_{pj} with respect to r_{jt}, the excess return of the benchmark j. Then,

---

[2] The Spanish mutual fund industry essentially developed in the second half of the 1990s. For this reason, if we had selected an earlier starting date for the sample period, the number of funds in the sample would have been dramatically reduced. Thus, the use of daily data enables the possibility of analyzing a large volume of information for all the funds existing from 30th June 1998.

as an extended version of Jensen's alpha, α_p measures performance. Considering the nature of the mutual funds analysed, and to avoid benchmark omission bias (Matallin-Saez 2006), the following benchmarks are considered: the Ibex 35 index for broad stock investment, MSCI Spanish market index for Small Caps, Value and Growth styles, the AFI Government Debt index and MSCI World index.

III. Results

Panel 1 in Table 1 shows a summary of the results of the performance of mutual funds using model [1]. As in the previous literature, the aggregate performance is negative, or close to zero. Results for BF, with an annual average performance of -1.98%, are worse than for EF, at 0.04%. Moreover, results for EF funds are more dispersed, and comparing the data of the median and mean, the latter improves slightly due to the results of the best mutual funds on the right side of the distribution.

We analyse the role of banking and independent managers in determining performance. Panel 2 of Table 1 shows the differences between the two for any type of fund. Banking managers handle approximately four times more mutual funds than independent managers. We use the chi-squared statistic to test the null hypothesis of independence between type of mutual fund and type of manager. The null hypothesis was not rejected (*p*-value=0.979); the difference in performance is therefore not driven by a heterogeneous distribution of BF and EF across manager type. The right side of panel shows how, for both types of funds, the performance of independent managers is better than that of banking managers; BF funds show a 1.26% annual improvement, and EF funds, 1.51%. Due to the different variance in performance distribution, instead of using a classic ANOVA test to analyse the significance

of the differences found, bootstrapping is applied. The results indicate that these differences are indeed significant.

Bearing in mind that independently managed funds achieve a better performance, we now analyse what inputs related to portfolio management could explain performance. The first one is the level of active management of the fund portfolio. Sharpe (1992) linked passive management to the fund's style estimated in the model [1] and active management to tracking error. We therefore define the variable v_p (active management) as the value of 1-R^2, i.e., the percentage of residual variance in the model [1]. If a manager follows a passive (active) strategy, v_p will be close to (far from) one. The second variable is l_p (mutual fund loads). This is computed as the costs (from manager fees and turnover) over assets. Commonly, higher loads will erase performance for investors. Another variable considered in the literature is the size (s_p) of the mutual fund [Beckers and Vaughan (2001) among others]. To avoid the bias reported by Matallin-Saez (2011), the size of a fund is measured in relative terms with regard to the total assets managed by all the funds at the beginning of the sample period. Lastly, n_p represents the number of mutual funds in the sample managed by the same managers. A low (high) number of funds managed could be inferred as a more concentrated (dispersed) management of these funds. For this variable, Hu and Chang (2008) find a negative relationship with respect to performance. Table 2 shows the mean of the values of these variables for each group of funds and type of managers. In general, BF are more actively managed and less expensive than EF. A comparison of banking and independent managed funds reveals that the former are more passive, somewhat larger in size, and their managers handle a higher number of funds. From this data and performance results, the model [2] is applied; where D_p is a dummy variable that takes the value of zero (one) for banking (independent) managed funds.

$$\alpha_p = c_p + (\gamma_1 + \phi_1 D_p)v_p + (\gamma_2 + \phi_2 D_p)l_p + (\gamma_3 + \phi_3 D_p)s_p + (\gamma_4 + \phi_4 D_p)n_p + \varepsilon_p \qquad [2]$$

Table 3 shows the results of estimating model [2]. From the results of γ_1 and ϕ_1 in both types of funds, active management is inferred to be significant only at the 1% level for the mutual funds managed by independents. But for EF the coefficient is 2.5 times higher than for BF funds. In other words, independent managers, on aggregate, add value to mutual funds through their active management, and this contribution is higher when they manage equity mutual funds, possibly because there are more strategies, risks and possibilities involved in investment in stock markets. On the other hand, a significant variable for both types of managers and funds are loads (γ_2). As expected, it takes negative value, namely, loads erode performance. The result is clearly significant for BF funds (p-value<0.01), but somewhat lower for EF funds (p-value=0.091). Only for independent managers does the number of funds managed have a negative impact on performance. It is clearly significant for EF but on the border for BF.

In sum, performance by independent managers is related positively to the level of active management, but negatively to the loads and the number of funds managed. It seems that, on aggregate, when managers are independent and centre their efforts on the managed portfolio, management adds value. However, banking managers appear to follow passive strategies (see Table 2) that do not add value and consequently only the loads charged are the most relevant variable to explain their underperformance.

Overall, results demonstrate that superior active managers do exist and the slight discrepancies arising between managers can be interpreted as agency problems. The manager's professional profile should be considered as a readily available source of

information for the investor, providing *ex ante* evidence of the portfolio's added value reported previously in the literature.

References

Alves, C. and Mendes, V. (2010) Mutual funds biased preference for the parent's stock: evidence and explanation, *Applied Financial Economics*, **20**, 1309-1320.

Beckers, S. and Vaughan, G. (2001) Small is beautiful, *The Journal of Portfolio Management*, **27**, 9-17.

Chen, X., T. Yao and Yu, T. (2007) Prudent man or agency problem? On the performance of insurance mutual funds, *Journal of Financial Intermediation*, **16**, 175-203.

Flavin, T. (2006) How risk averse are fund managers? Evidence from Irish mutual funds, *Applied Financial Economics*, **16**, 1355-1363.

Hu, J. L. and Chang, T. P. (2008) Decomposition of mutual fund underperformance, *Applied Financial Economics Letters*, **4**, 363-367.

Kempf, A., Ruenzi, S. and Thiele, T. (2009) Employment risk, compensation incentives, and managerial risk taking: evidence from the mutual fund industry, *Journal of Financial Economic*s, **92**, 92-108.

Lütje, T. (2009) To be good or to be better: asset managers' attitudes towards herding, *Applied Financial Economics*, **19**, 825-839.

Matallin-Saez, J. (2007) Portfolio performance: factors or benchmarks?, *Applied Financial Economics*, **17**, 1167-1178.

Matallin-Saez, J. (2011) On causality in the size-efficiency relationship: the effect of investor cash flows on the mutual fund industry, *Applied Economics*, forthcoming, available at iFirst.

Mehran, H. and Stulz, R. M. (2007) The economics of conflicts of interest in financial institutions, *Journal of Financial Economics*, **85**, 267-296.

Menkhoff, L. and Schmidt, U. (2005) The use of trading strategies by fund managers: some first survey evidence, *Applied Economics*, **37**, 1719-1730.

Menkhoff, L. (2011) Are momentum traders different? Implications for the momentum puzzle, *Applied Economics*, forthcoming, available at iFirst.

Newey, W and West, D. (1987) A simple, positive semi-definite, heteroskedasticity and autocorrelation consistent covariance matrix, *Econometrica*, **55**, 703-708.

Puckett, A. and Yan, X. (2011) The interim trading skills of institutional investors, *The Journal of Finance*, **66**, 601-633.

Rodriguez, J. (2008) European mutual funds and portfolio's country exposure: does active management add value?, *Applied Financial Economics*, **18**, 683-689.

Sharpe, W. (1992) Asset allocation: management style and performance measurement, *The Journal of Portfolio Management*, **18**, 7-19.

Table 1. Mutual fund sample and performance

The table presents the results of the performance measured as α_p in Model [1]. The sample period runs from June 30 1998 to March 31 2007. The heteroskedasticity and autocorrelation consistent covariance estimator is by Newey and West (1987). The estimated coefficient α_p is an annualized percentage.

Panel 1

Class.	Number of funds	Annualized performance in percentage				
		Mean	Median	Min.	Max.	S.d.
BF	131	-1.98	-1.96	-7.25	6.90	2.16
EF	74	0.04	-0.09	-7.98	10.33	2.89

Panel 2

Class.	Number of funds		Average annualized performance in percentage		
	Banking	Independent	Banking	Independent	Difference: Indep.-bank. (*p*-value)
BF	106	25	-2.22	-0.96	1.26 (0.002)
EF	59	15	-0.27	1.25	1.51 (0.042)

Table 2. Descriptive data of performance inputs and type of manager

Variable	BF		EF	
	Banking managers	Independent managers	Banking managers	Independent Managers
Active management	0.20	0.26	0.08	0.16
Loads	1.92	1.68	2.04	2.12
Size	0.005	0.004	0.005	0.004
Number managed funds	5.66	2.16	6.15	2.53

Table 3. Performance inputs and type of manager

Variable		Balanced mutual funds (BF)		Equity mutual funds (EF)	
		Estimated Value	*p-value*	Estimated Value	*p-value*
	c_P	-0.0054	(0.351)	0.0176	(0.159)
Active management	γ_1	-0.0168	(0.218)	0.0037	(0.878)
	ϕ_1	0.0862	(0.007)	0.2207	(0.000)
Loads	γ_2	-0.0068	(0.001)	-0.0085	(0.091)
	ϕ_2	-0.0002	(0.969)	0.0063	(0.381)
Size	γ_3	-0.2200	(0.368)	-0.3298	(0.440)
	ϕ_3	0.8486	(0.211)	1.2559	(0.367)
Number managed funds	γ_4	0.0002	(0.786)	-0.0003	(0.742)
	ϕ_4	-0.0063	(0.102)	-0.0158	(0.020)