Picking Winners? Investment Consultants' Recommendations of Fund Managers

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ABSTRACT

Investment consultants advise institutional investors on their choice of fund manager. Focusing on U.S. actively managed equity funds, we analyze the factors that drive consultants' recommendations, what impact these recommendations have on flows, and how well the recommended funds perform. We find that investment consultants' recommendations of funds are driven largely by soft factors, rather than the funds' past performance, and that their recommendations have a very significant effect on fund flows. However, we find no evidence that these recommendations add value, suggesting that the search for winners, encouraged and guided by investment consultants, is fruitless.

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Investment consultants are important intermediaries in institutional asset management. Many retirement plans, foundations, university and other endowments, and other so-called *plan sponsors*[1] engage investment consultants to provide a range of investment services. These include asset/liability modeling, strategic asset allocation, benchmark selection, active vs passive management, fund manager selection, and performance monitoring. It has been estimated that, as at June 2011, almost $25 trillion of institutional assets worldwide were advised on by investment consultants (*Pensions and Investments* (2011)). Goyal and Wahal (2008) estimate that 82% of U.S. public plan sponsors use investment consultants, as do 50% of corporate sponsors. Furthermore, in some countries plan sponsors are required by law to consult investment consultants before making their investment decisions.[2] From the perspective of asset managers, investment consultants are key "gatekeepers", whose opinions determine whether a plan sponsor will even consider a particular fund. Despite a voluminous literature questioning whether active managers can add value for investors, many plan sponsors continue to search for active managers. Investment consultants play a critical role in both encouraging and guiding this search for "winners" and so understanding whether they add any value for investors has important implications for investment strategy.

The investment consulting industry is highly concentrated: measured by assets under advisement the top ten consultants have a worldwide market share of 82% (and the top ten in the

[1] We use the term 'plan sponsors' instead of 'institutional investors' to distinguish them clearly from fund managers.

[2] For instance, U.K. pension fund trustees must "obtain and consider the written advice of a person who is reasonably believed by the trustees to be qualified by his ability in and practical experience of financial matters and to have the appropriate knowledge and experience of the management of investments" (The Occupational Pension Schemes (Investment) Regulations 2005, regulation 2(2a)).

U.S. an 81% market share), according to *Pensions and Investments* (2011). The five largest investment consultants in 2011 were Hewitt EnnisKnupp ($4.4 trillion under advisement), Mercer ($4.0 trillion), Cambridge Associates ($2.5 trillion), Russell Investments ($2.4 trillion) and Towers Watson ($2.1 trillion). Unsurprisingly, institutional asset managers view being highly rated by these major investment consultants as crucial to their success.

Investment consultants have largely avoided the attentions of academics, reflecting the fact that consultants have disclosed too little data to allow rigorous analysis of their activities. However, their role and influence have recently attracted interest from various quarters. The "pay to play" scandals involving some large U.S. pension schemes have revealed that some investment consultants receive compensation, or kick-backs, for recommending certain asset managers (Siedle (2013)), while the New York State Department of Financial Services recently started an investigation into the role of investment consultants to the New York pension funds (Kelleher (2013)). An earlier study by the SEC (2005) highlighted the potential conflicts of interest facing investment consultants, and their failure to disclose them.

In this paper we use a unique data set to explore the role, influence and performance of investment consultants in one of the key services they provide: fund recommendations.[3] We focus on U.S. actively managed equity, which is not only the largest asset class but provides us with the largest and longest data set. The institutional funds that we analyze have, in total,

[3] Although the terms 'asset manager selection' and 'manager selection' are widely used in the industry, it is in fact particular funds that are recommended. We refer to 'funds', 'products' and 'fund products' interchangeably when referring to what investment consultants recommend. We refer to the managers of these products as 'fund managers'.

around $3 trillion of assets under management.[4] Using thirteen years of survey data, we investigate three questions. First, what drives consultants' recommendations? Second, are capital flows affected by consultants' recommendations, i.e. do consultants have substantial influence on the manager selection decisions of plan sponsors? And, third – the main focus of this paper – do these recommendations successfully predict superior performance?

Investment consultants rate products that are aimed at institutional, rather than retail, investors. A large literature exists on retail mutual funds, and the accuracy of ratings produced by intermediaries such as Morningstar (Blake and Morey (2000), Khorana and Nelling (1998)). There is also a recent literature exploring the benefits to retail fund investors of using professional brokerage firms: Bergstresser et al. (2009) examine these benefits in terms of fund selection, while Gennaioli et al. (2014) analyze other services of financial advisers, notably the confidence these firms give to invest in financial assets at all. Much work has also been done on the accuracy of analyst recommendations for individual stocks (see, for example, Womack (1996), Barber et al. (2001), Jegadeesh et al. (2004)). On the institutional side, previous authors have analyzed the performance of investment products (in particular Lakonishok, et al. (1992), Coggin et al. (1993), Ferson and Khang (2002) and Busse, Goyal and Wahal (2010)) and the relationship between performance and the hiring and firing of investment management firms

[4] This is the total at the end of 2011 (the end of our sample period). While the majority of plan sponsors, particularly the large public pension schemes, employ investment consultants, this figure will include investments in active equity products from plan sponsors that do not retain an investment consultant. So the total "under advisement" will be somewhat less than $3 trillion. We exclude passive index-tracking funds from our analysis, as there is little role for investment consultants in choosing such products, and they are not included in the recommendations we study.

(Goyal and Wahal (2008)). However, this is the first paper to analyze the formation, impact, and accuracy of investment consultants' recommendations of institutional funds.

The main data we use in this study is provided by Greenwich Associates (GA), which has conducted surveys of investment consultants since 1988. The U.S. active equity products, on which we focus, are available for the period 1999-2011. As of 2011, the consultants in the survey had a 90% share of the consulting market worldwide and 91% of the U.S. consulting market, and included all of the top ten investment consultants by market share, based on the *Pensions & Investment* survey for 2011. The GA survey data tells us, for each year, how many consultants recommend each fund in a particular size-style category.

We first analyze what drives consultants' recommendations of funds by relating recommendations to the size, fees, and past performance of the funds, and with various non-performance attributes of fund managers that are evaluated by consultants in the GA surveys. These non-performance attributes are divided into Soft Investment Factors (i.e. factors which relate to the investment process) and Service Factors (i.e. factors which relate to service delivery). We find that consultants' recommendations correlate partly with the past performance of fund managers, but more with non-performance factors, suggesting that consultants' recommendations do not merely represent a return-chasing strategy. We also find that, other things being equal, larger products attract more recommendations.

Next we compare consultants' recommendations of funds with fund flows. We find very significant flows of funds into, and out of, products following changes in recommendations by investment consultants; for instance, attracting (or losing) recommendations from one-third of the investment consultants results, on average, in an increase (decrease) of around 10% or $0.8 billion in the size of the investment product within one year.

Finally we assess the performance of the funds recommended by investment consultants. To measure fund performance we use standard one-, three- and four-factor pricing models, as well as returns relative to appropriate size/style benchmarks. We measure performance both gross and net of fund managers' fees.[5] Starting with returns relative to benchmark, on a value-weighted basis we find no evidence that recommended products significantly outperform other products. However, on an equally-weighted basis, we find that average returns of recommended products are actually around 1% *lower* than those of other products. This result is confirmed using one-, three- and four-factor pricing models, and the differences using returns against benchmark and factor models are in every case statistically significant. We also measure the performance of products in the one- and two-year period after they have experienced a net increase or decrease in the number of recommendations they receive; we do so in order to test for the possibility that consultants' recommendations add value in the short term, but then become stale and fail to make a contribution. However, there is no evidence that the net increase or decrease in the number of recommendations predicts superior or inferior performance respectively.

Given that the more highly-rated funds attract more capital, and larger funds may themselves underperform owing to diseconomies of scale (as found in the mutual fund sector by Chen et al. (2004)), we investigate whether the underperformance of the recommended funds persists having controlled for assets under management. This is because the choice of larger products may not be a free one: investment consultants may be forced to recommend products of a certain size, perhaps due to concerns about capacity constraints among small products. We find a significant negative impact of fund scale on performance, which seems fully to explain the

[5] Investment consultants themselves charge plan sponsors a fee for their services, which we do not take into account.

underperformance of recommended products. Even controlling for fund size, however, there is no evidence that the recommendations of investment consultants for these U.S. equity products enabled investors to outperform their benchmarks or generate alpha.

Our analysis focuses on one asset class, U.S. active equity, which may be more efficient than other asset classes, and it is possible that elsewhere the recommendations of investment consultants are more prescient. However, U.S. active equity is a major asset class for plan sponsors, and our analysis of flows indicates that consultants' recommendations in this asset class are highly influential. This raises the question why plan sponsors engage investment consultants to help select fund managers without evidence that they add value. We identify three possible reasons. First, in keeping with the hypothesis of Lakonishok, et al. (1992), plan sponsors may value the hand-holding service provided by consultants. To use the analogy of Gennaioli et al. (2014), investment consultants are 'money doctors' with whom investors develop a relationship of trust, and this in turn gives them confidence when they select fund managers.

Second, investment consultants may provide a shield that plan sponsors can use to defend their decisions. This is in keeping with the finding of Goyal and Wahal (2008) that plan sponsors most sensitive to 'headline risk' are most likely to use investment consultants, and also with the conclusions of Jones and Martinez (2014) that plan sponsors disregard their own expectations of fund managers' performance in favor of the recommendations of investment consultants.

Third, as a result of consultants' lack of transparency and their own naivety, plan sponsors may misunderstand the utility of these recommendations (cf. Inderst and Ottaviani, (2012) for a perspective on retail financial advice in this vein). While consultants insist on full transparency in the performance of the fund managers they rate, they do not themselves disclose past recommendations to allow evaluation of their own performance. Our industry-wide analysis shows that non-recommended funds perform at least as well as recommended funds. Of course,

some consultants will be more accurate than others, but plan sponsors do not have sufficient information to tell them apart. In the light of our findings, a natural response by plan sponsors (or regulators) would be to require investment consultants to provide the same level of disclosure as that which is provided by fund managers on their performance, or the same level of disclosure provided by research analysts on their stock recommendations.[6]

The remainder of this paper is structured as follows. In the next section we describe the role of investment consultants in selecting institutional funds. In section 2 we describe our data set. In section 3 we describe our methodology and we analyze the drivers of consultants' recommendations, the capital flows that they bring about, and the performance difference between recommended and non-recommended products. We also conduct robustness checks on our main results. Section 4 concludes.

1. The Role of Investment Consultants

Investment consultants provide several types of advice to plan sponsors.[7] In the sequence of decision-making, the first engagement, which is carried out when a plan is formed and periodically thereafter, is to help the sponsor determine and formulate the objectives of the plan. These vary significantly between plan types (e.g. pension funds and endowments). Next, the

[6] It is market practice for U.S. institutional fund managers to comply with the requirements of the Global Investment Performance Standards (GIPS) when disclosing their performance. As for research analysts, FINRA Rule 2711(h)(5) requires brokers to disclose the aggregate percentage of Buy, Hold and Sell recommendations for the set of all the companies they cover for the previous twelve months. However, market practice is for brokers also to disclose their actual recommendations of individual stocks for the previous three to five years and, in some cases, even longer.

[7] For a description of the role of investment consultants see SEC (2005).

consultant advises the plan sponsor on an investment strategy to accomplish those objectives, including the choice of benchmarks, the broad allocation of assets between asset classes, and agreed bands within which this allocation may vary. Within some asset classes the next decision is whether to opt for an active or a passive approach and then to select fund managers under the approach adopted. After the appointment of fund managers, the consultant monitors their performance, and may make recommendations for termination and replacement.

Why do plan sponsors employ investment consultants for manager selection? In most cases, ultimate fiduciary responsibility for the performance of the assets rests with trustees who are non-specialists and require independent and specialist advice. Day-to-day management of the assets is typically carried out by investment professionals employed by the plan, but the trustees are ultimately responsible for hiring, monitoring and firing the investment professionals and fund managers employed by the plan, as well as strategic asset allocation decisions. Investment consultants report directly to the trustees and provide them with information and advice to allow them to discharge their responsibilities.

The scope of the advice sought from investment consultants depends on the professional skills of the trustees and the extent of in-house expertise, as well as the complexity of the investment strategy being followed. An index-tracking strategy for equity investments requires limited input from consultants, as the choice between products is relatively simple and passive managers require limited monitoring. However, in the case of active managers, investment consultants are asked to make recommendations – for both hiring and firing – drawing on their program of fund manager due diligence. This research involves both quantitative analysis of past performance and qualitative judgments about the fund manager. We discuss the various qualitative factors in the next section.

Plan sponsors use consultants' recommendations both when they first hire and when they replace managers. As part of the hiring procedure, the consultant typically draws up a shortlist of its recommended fund managers. In some cases the plan sponsor, for fiduciary reasons, makes the final selection alone; in other cases the plan sponsor takes further advice from the investment consultant when choosing from the shortlist. These consultant services are paid for by a retainer if they are recurrent (e.g. manager monitoring) or under a schedule of charges for *ad hoc* work (e.g. manager termination and selection).[8]

The importance of investment consultants to plan sponsors is reflected in survey data. The *Pensions and Investments* (2011) survey of plan sponsors found that 23% of respondents rated investment consultants as "crucial" to the operation and success of their plans, with a further 40% rating consultants as "very important", and 26% rating them "somewhat important". As noted earlier, investment consultants offer a range of services, but when plan sponsors were asked in what area they felt their consultants added the most value, the most frequent responses were "money manager search/selection" (27%), "asset allocation development" (27%) and "performance measurement/reporting" (23%). Similarly, on the sell-side, investment management firms view investment consultants as *the* key gatekeeper to plan sponsors.

Investment consultants do not disclose past recommendations in a way that would allow their accuracy to be measured. Some consultants show their 'value added' by comparing the performance of a portfolio of their recommended funds with that of a chosen benchmark. However, they do not generally compare this performance with the performance of institutional

[8] It is worth noting that whereas recommendations of retail funds are often provided free of charge, or, in the case of equity analysts, such research is bundled together with brokerage services, the advice of investment consultants on fund managers is paid for directly by the plan sponsors.

funds which they do *not* recommend, nor do they make available the underlying data for scrutiny by third parties. To overcome this constraint, we use the leading industry survey of investment consultant recommendations, which we describe in the next section.

2. Data

Our main source of data is a survey of investment consultants' recommendations of U.S. long-only (i.e. excluding hedge funds) actively managed equity products that Greenwich Associates has been conducting annually since 1988. In this survey investment consultants are asked to rate active fund managers on various measures of performance and service, and also to state the names of the fund managers they recommend to their clients for each of a number of investment styles. Further details on the GA surveys can be found in the Internet Appendix.

We draw on the surveys between 1999 and 2011. For the period before 1999 the GA survey does not contain information on investment consultants' recommended products. Each year the survey was carried out over a two-to-four month period starting between late November of one year and early January of the next. Consultants respond to the questionnaires in confidence, and the responses by individual investment consultants to the GA questionnaires are not disclosed in the survey results, but rather the aggregate responses.

The main information we obtain from these surveys is an annual list of fund managers showing, in each size/style category, the percentage of the consultants surveyed who recommended that fund manager.[9] According to GA, consultants are asked to recommend

[9] Many investment consultants will, having performed their due diligence on a fund manager, assign a rating similar to the buy-hold-sell classification used for equity analysts. However, the survey data we use focuses on their positive

between four and six fund managers for each of seven different market-capitalization-style sub-categories: Large Cap Growth, Large Cap Value, Small Cap Growth, Small Cap Value, Mid Cap Growth, Mid Cap Value and Domestic Equity Core. If a fund manager manages more than one product in a given size/style category we aggregate those products into a single one, to make it correspond to the GA classification.[10] Since we obtain our data from original documents we are confident that all recommendations are included in the database even if a product ceases to exist, or if returns are no longer reported, and so the recommendations data are free from survivorship and backfill bias.

In addition to providing a shortlist of recommended products, consultants responding to the survey express their opinions on a fund manager in an entire asset class rather than on individual products or groups of similar products within that class. GA divides the headings under which respondents are asked to rate fund managers into two sets: investment factors and service factors. Three of the investment factors, which we call "soft" investment factors, are: clear decision making, capable portfolio management, and consistent investment philosophy. The service factor category includes the capabilities of relationship professionals, usefulness of reports prepared by the fund manager, effective presentations to consultants, as well as some other factors that vary from year to year. For each factor the respondent is invited to rate a fund manager's performance in each asset class on a five-point scale. Under each factor GA then aggregates the responses into a single score for each fund manager in each asset class surveyed

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recommendations. Consequently, in the empirical work we compare the performance of the recommended ("buy") funds to all others ("hold", "sell" and those that have not been analyzed).

[10] This was not very common: only 19% of the observations in our sample represent aggregated products in the same size/style category.

using the Rasch model (see Andrich (1978)). In this study we work with a modified version of these scores, the fractional rank, obtained by ranking the fund manager's scores for each variable into percentiles and dividing them by 100 to arrive at a factor for each manager between zero and one.

We combine this GA data on investment consultants with data for the same period on the returns of institutional U.S. equity funds, their asset management fees, and their assets under management, all provided by eVestment, and with additional fee data from Informa Investment Solutions (IIS).[11] The eVestment databases report the monthly returns of institutional funds, their assets under management (at an annual, and sometimes quarterly, frequency), and the latest available fees charged by those funds. From IIS we obtain year-by-year asset management fees, which are not available from eVestment. The returns we obtain for the products in the eVestment database are "composite" returns. The individual returns earned by each client may deviate from these composite returns, but deviations are typically small.[12] Composite returns are net of trading costs, but gross of investment management fees. The data are self-reported by the fund managers, but constant scrutiny from clients using this data guarantees a high degree of accuracy. The return data are free from survivorship bias: like the GA survey, the eVestment database retains data for funds that have been discontinued (e.g. because they have been acquired or closed). For each product, the databases also provide cross-sectional information (as of June 2012) on investment style and capitalization bracket, manager-designated benchmark, and the latest fees.

[11] eVestment and IIS are both leading providers of data and analytic services to institutional fund managers.

[12] For example, some investors may require that their part of the overall portfolio is purged of the influence of companies involved in arms, tobacco, alcohol, gambling etc.

To match the eVestment data with the GA asset class of U.S. long-only equity, from where our sample of shortlisted products is drawn, we first eliminate index funds (including enhanced index funds), hedge funds, REITs and retail funds. We also eliminate products that do not match the seven GA size/style sub-categories.[13] We also drop observations for Mid Cap Growth and Value products before 2001 and for Equity Core products before 2003, as the GA survey did not ask for recommendations on these products before these dates.

Tables I and II provide descriptive statistics for the final sample. As Table I shows, the average number of available products during the sample period is 1,919. Approximately 21% of the products received at least one recommendation each year from an average of 29 investment consultants who answered the survey each year. Average assets per product are $1.5 billion. Recommended products are substantially larger than non-recommended ones: average assets managed by recommended product are $4 billion, whereas the average size of non-recommended products is only $0.8 billion. At the end of our sample period the total assets under management of (recommended and non-recommended) products in the sample are $3 trillion. This figure is similar to that reported by Busse et al. (2010) for 2008, which suggests that the coverage of the databases is similarly comprehensive.[14]

[13] We match U.S. Equity Core products in the GA surveys to Large Cap Core, Mid-Large Cap Core, Mid Cap Core, and All Cap Core products in the eVestment databases.

[14] $3 trillion is the total value, at the end of 2011, of U.S. active equities managed by institutional asset managers in our sample, having excluded categories that do not match the GA survey data, including around $1.2 trillion of U.S. passive products.

Table II shows average annual pro forma fees (in percent) of the recommended and non-recommended products.[15] Panel A shows fees using the eVestment database as of the last year of the sample, 2011, or latest available. Fee information for each product is not available from eVestment for each year. However, to check whether there have been significant changes in fees we also source data from IIS, which is available on an annual basis. Panel B shows average fees in the IIS database over the 13-year period covered by our study (1999 to 2011). As is typical in this industry, fees decline as investment levels increase. There is, however, no difference between average fees charged on recommended and not recommended products. For a $50 million mandate the average fee of recommended products is 68 bps compared with 69 bps for non-recommended products. There are no significant differences between using eVestment or IIS as the source of data. We also find very little time series variation in fees, and we do not find much intra-style cross sectional variation (see the Internet Appendix for details). These findings are very much in line with Busse et al. (2010). We also find that, in contrast to the strong correlation between fees and account size, there is (almost) no relationship between fee and product size (product assets under management), as the correlation between these two variables is on average just -0.06 (average across categories) and is never statistically significant.

3. Methodology and Results

The first part of this section investigates the factors that influence investment consultants' recommendations of U.S. actively managed equity products. The factors we analyze include not

[15] Pro forma fees are not necessarily the same as actual fees, which are the result of a confidential negotiation process. However, we understand from industry sources that fee negotiations are typically conducted between plan sponsors and fund managers and occur *after* the investment consultant has drawn up the shortlist of recommended products.

only the past performance of the product, but also the non-performance attributes which the consultant identifies in the fund manager – the Soft Investment Factors and Service Factors – as well as product size and fees. In the second part we assess the impact of investment consultants' recommendations on flows into and out of these investment products, showing the extent to which investment consultants' recommendations are actually followed by plan sponsors. In the third part we examine whether investment consultants' recommendations of fund managers add value to plan sponsors, by comparing the performance of recommended and non-recommended products. In the fourth part we test the robustness of our performance findings and conduct further analysis, notably to investigate whether differences in size between recommended and non-recommended products can explain the observed underperformance of the former.

A. Drivers of Recommendations

In this section we explore the determinants of investment consultants' recommendation decisions. We estimate a Poisson model, with the standard exponential mean parameterization, on pooled yearly data. The pooled Poisson estimator assumes that the number of recommendations received by a product *i* at time *t* ($Recs_{i,t}$) is Poisson distributed with a mean of:

$$E\left(Recs_{i,t}\middle|x_{i,t}\right) = exp\left(\alpha_t + \beta_1 Past\ Perf_{i,t} + \beta_2 Soft\ Inv.Factors_{i,t} + \beta_3 Service\ Factors_{i,t} + \beta_4 Fee_{i,T} + \beta_5 AUM_{i,t-1} + \beta_6 Return\ Vol_{i,t}\right) \quad (1)$$

$Past\ Perf_{i,t}$ is either the gross return or Fama-French three factor alpha fractional rank of product *i* in relation to the other products in the same market capitalization and style category over the two year period immediately preceding the survey from which recommendations are collected. $Soft\ Inv.\ Factors_{i,t}$ is the fractional rank at time *t* of a set of Soft Investment Factors of fund manager *i*'s U.S. equity team (i.e., Clear Decision Making, Capable Portfolio Manager, and Consistent

Investment Philosophy). *Service Factors*$_{i,t}$ is the fractional rank at time *t* of a set of Service Factors of fund manager *i*'s U.S. equity team (i.e., Capabilities of Relationship Professionals, Usefulness of Reports prepared by the fund manager, Effective Presentations to consultants). $Fee_{i,T}$ is the fractional rank at time *T* (i.e. the end of the sample period) of the asset management fee of product *i* based on a $50m investment in relation to the other products in the same market capitalization and style category. $AUM_{i,t-1}$ is product *i*'s assets under management (in $ billions) at time *t-1*. Finally, *Return Vol*$_{i,t}$ is a measure of product *i*'s return volatility over the two year period preceding the survey.

When estimating this model we use robust standard errors clustered at the product level and a full set of time dummies. The Poisson Quasi-MLE estimator we use retains consistency if the count is not actually Poisson distributed, provided that the conditional mean function is correctly specified (see Wooldridge, (2010)).

Table III shows the results of this exercise. The table contains both coefficient estimates and average marginal effects. Models I and II use the soft investment and service quality indexes as regressors whereas Models III and IV replace them with (some of) their components.[16] Results suggest that investment consultant recommendations are at least partly driven by past good performance (a common phenomenon in financial analysts' decisions to recommend stocks; see Altinkilic and Hansen, (2009)). Moving from the bottom to the top percentile of past performance leads, on average, to an increase of half a recommendation in the average number of recommendations received by a product (out of an average maximum of 29 recommendations per

[16] We exclude Service Factors that were part of the survey for only part of the sample period.

year, the average number of consultants issuing recommendations in our sample).[17] Soft Investment Factors, notably Capable Portfolio Manager and Consistent Investment Philosophy, seem to have a more important impact on recommendations. Estimates in Models I and II indicate that moving from the bottom to the top of the Soft Investment Factors ranking is rewarded, on average, with slightly under six extra recommendations per year. Service Factors, and in particular Capabilities of Relationship Professionals and Usefulness of Reports, also appear to be important drivers of recommendations. Estimates in Models I and II suggest that improvements in service quality, from the bottom percentile to the top one, lead to one extra recommendation received per product per year.

Larger products are associated with a higher number of recommendations, perhaps reflecting the concentration of the investment consulting sector, with consultants focusing on products that are suitable for their range, and scale, of mandates. In these regressions lagged assets under management is a predetermined variable and therefore contemporaneously exogenous. As a robustness check, and to account for the possibility that current recommendations might affect (one period) lagged AUM – on the grounds that current recommendations might have been issued a number of months before they appear in the survey – we also estimate an instrumental variable version of this model. In the Internet Appendix we report the result of using the GMM estimator of Mullahy (1997) to address the potential endogeneity of $AUM_{i,t-1}$ using $AUM_{i,t-2}$ as an instrument.

[17] The time period and performance models we use to gauge past performance could differ from the consultant's own assessment of past performance. Any such a difference could serve to attenuate the estimated impact of past performance on consultants' recommendations. It is however reassuring that, as shown in the Internet Appendix, including additional past performance measures in our model does not significantly affect our results.

One surprising result is that, if anything, higher fees are associated with an increased probability of recommendation. However, given the tight clustering of fees observed in Table II this effect is not economically significant. Moreover, as noted earlier, since plan sponsors typically negotiate fees with fund managers after the investment consultants have drawn up a shortlist of candidates, actual fees paid by plan sponsors are likely to show more variation than in the eVestment and IIS data, and therefore these results should therefore be treated with caution. [18]

Although an analysis of the distribution of the number of recommendations per product indicates that the data is over-dispersed, thus violating the Poisson variance assumption, the Quasi-MLE estimator used to estimate Models I to IV is robust to this problem. For further robustness, however, Models V to VIII in Table III repeat the estimation using the Negative Binomial (NB2) of Cameron and Trivedi (1986), a particular parameterization of the negative binomial distribution that allows for over-dispersion, instead of the Poisson distribution. As shown in columns V to VIII, the results are nearly identical to those of the Poisson model, suggesting that both models provide similar fit for the conditional mean.

To summarize the results in this section, we find that investment consultants' recommendations are a function of past fund performance, but especially of the two sets of non-performance factors (Soft Investment Factors and Service Factors) that consultants identify in fund managers. In particular, Soft Investment Factors appear to have a far more powerful effect on consultants' recommendations than past performance. So although consultants' recommendations to some extent reflect a return-chasing strategy, they seem to be more heavily

[18] In the Internet Appendix we explore alternative fee specifications, including using time t-1 and time-averaged fees from IIS, finding no significant differences in results.

influenced by the consultants' qualitative judgment of intangible factors. We also find that, other things being equal, larger products attract more recommendations.

B. Flows

In this section we explore how asset flows respond to changes in consultants' recommendations.[19] We do this by expanding a typical flow-performance regression (see, for instance, Ippolito (1992), Chevalier and Ellison (1997) and Sirri and Tufano (1998)) to include a recommendation change variable as regressor. We consider two flow measures. The Dollar Flow into and out of an investment product is defined as the yearly change in the total net assets minus appreciation:

$$\$Flow_{i,t} = TNA_{i,t} - TNA_{i,t-1} * \left(1 + r_{i,t}\right) \qquad (2)$$

where $TNA_{i,t}$ is the total net assets for product i at date t, and $r_{i,t}$ is the gross return on product i between dates t-1 and t. This measure reflects the growth of a fund in excess of the growth that would have occurred if no new funds had flowed in but dividends had been reinvested.

The second measure is the Percentage Flow relative to the total net assets invested in the product as of the end of the previous year:

$$\%Flow_{i,t} = {\$Flow_{i,t}}/{TNA_{i,t-1}} \qquad (3)$$

[19] Jones and Martinez (2014) show that plan sponsors follow investment consultants' recommendations of fund products. Their analysis focuses on the incremental effect on flows of consultants' recommendations, over and above the effect of such recommendations that is channelled through the other variables of interest, notably through the expectations of plan sponsors themselves. In this paper we measure the full effect of changes in recommendations.

The bivariate relationship between recommendation changes and Dollar and Percentage Flows is shown in Figure 1.[20] The graph plots show the results of estimating kernel weighted local linear regressions of Dollar Flows (Panel A) and Percentage Flows (Panel B) on lagged changes in consultants' recommendations. The results indicate a positive relationship between the change in consultants' recommendations (measured as the change in the percentage of recommendations received by a product over the total possible) and subsequent flows. We are interested, however, in measuring how flows respond to recommendation changes, controlling for publicly-available measures of past performance, as well as for other product attributes known to affect flows and which could also affect recommendations (namely past performance, fund size, and return volatility). We estimate the response of flows to recommendation changes using the following regression on yearly data:

$$Flow_{i,t} = \alpha_t + \beta_1 \Delta Consultants\ Recs_{i,t-1} + \beta_2 Past\ Perf_{i,t-1} + \delta' Controls_{i,t-1} + \epsilon_{i,t} \quad (4)$$

$Flow_{i,t}$ is either the Dollar Flow or the Percentage Flow. $\Delta Consultants\ Recs_{i,t-1}$ is the change in the number of recommendations product *i* received, as a fraction of the highest possible number of recommendations which that product could have received from all of the consultants in our sample, between time *t-2* and *t-1*. $Past\ Perf_{i,t-1}$ is a set of performance measures of product *i* at date *t-1* (the one year gross return and Fama-French three factor alpha rankings of a product in relation to the other products in the same market capitalization and style category). The regressions also include the total net assets for product *i* at date *t-1* (in the Percentage Flow

[20] To reduce the effect of outliers on the coefficient estimates, we winsorize the percentage flows variable at the 95th percentile (as in Barber et al. (2005)). Similar results obtain if we remove small products from the sample instead.

regression we use log assets as the regressors; see Del Guercio and Tkac (2002)), a measure of product return volatility over the previous two years, and a full set of time dummies (one per each year in the sample) as additional controls.

Table IV reports the results of estimating this regression using pooled time-series cross-sectional data with Dollar Flows and Percentage Flows as the dependent variables. Each column in this table represents a separate regression. The coefficients of the variables capturing the effect of lagged changes in recommendations on absolute flows are positive and statistically significant. This suggests that plan sponsors respond to the investment consultant recommendation changes by moving money in the direction implied by the recommendation change. The estimate in column I indicates that moving from a situation where no consultant recommends the product to another when all of the consultants in our sample recommend it leads to an extra inflow of assets of $2.4 billion.

Qualitatively similar results obtain if we use percentage flows as the dependent variable. Estimates in column IV suggest that a product shortlisted by all the consultants in the sample, in the previous year, receives, on average, extra inflows equal to 29% of the assets managed by that product in the previous year, compared to a similar product that is not shortlisted by any consultant. In all cases t-statistics are based on clustered standard errors, which are White heteroskedastic-consistent standard errors corrected for possible correlation across observations of a given investment product (White (1980) and Rogers (1993)). This method seems to be the most appropriate given the size of our panel (see Petersen (2009)).

The difference between, on the one hand, columns I and IV and, on the other, columns II and V is that II and V include also lagged recommendation levels (as opposed to changes) as regressors while I and IV do not. The economic reason for including lagged recommendation levels is that institutional money may be slow to react. This regressor reflects the extent to which

the level of recommendations explains flows in a steady state, independently of any change in those recommendations, and helps account for flows arriving more than one year after the recommendation change. The estimates in models II and V indicate that the bulk of the effect of recommendation changes on flows happens in the year after the recommendation change, with relatively minor effects visible later on.

Estimates in columns III and VI of Table IV suggest that the relation between flows and past recommendation changes is nearly linear. In these models we replace the recommendation change variable with two variables capturing positive and negative recommendation changes. Although the coefficients attached to the negative change variables are slightly higher than the regression coefficients on positive recommendation changes, differences between the two slopes are not statistically significant.

Our regressions also indicate that previous performance has a large and significant impact on asset flows (a result that is very much in line with the previous literature on the topic; see, for example, Del Guercio and Tkac (2002)). In these regressions the figures against fractional performance ranks are the dollar or percentage change in assets in the current year that reflect the difference between the bottom percentile and the top percentile of gross returns or three factor alphas in the previous year.[21] Taking into account both measures of performance in combination, estimates in models I and IV indicate that moving from the 25th percentile of performance to the 75th percentile is rewarded with a 18% increase in assets (inflows of around $235m). Interestingly, the estimates in columns III and VI indicate that the performance measure that most strongly

[21] A portfolio's fractional performance rank represents its percentile performance relative to other U.S. equity investment products in the same equity category and period and ranges from 0 to 1.

affects assets flows is the product's gross return ranking in relation to the other products in the same category and not its risk-adjusted return ranking. This is consistent with the widespread use in the industry of this measure.

To summarize, we find that changes in investment consultants' recommendations have a large and significant effect on flows into institutional investment products.

C. Performance

We measure the performance of consultants' recommended products by estimating factor models using time-series regressions. To generate aggregate measures of performance, we create equal- and value-weighted portfolio returns of recommended and not recommended products available in each month. In this analysis the recommended portfolio includes each fund as many times as it is recommended. The weight used for value-weighting is based on the assets in each product at the end of December of the prior year. With these returns, we estimate:

$$r_{p,t} = \alpha_p + \beta_p' f_t + \varepsilon_{p,t} \qquad (5)$$

where r_p is the portfolio excess return (over the risk-free return), f_t is a vector of excess returns on benchmark factors, and α_p is the abnormal performance measure of interest. We use three established factor models: CAPM (Sharpe (1964), Jensen (1968)), the Fama-French (1993) three factor model and the Fama-French-Carhart four factor model (Carhart (1997)). We obtain these four factors from Kenneth French's web site.[22] In addition to these measures we report the

[22] Academic factor models are more demanding than practitioner benchmarks, and fund sponsors may give credit to fund managers for allocation decisions that are not reflected in alpha under such models. For example, although practitioners use 'style' benchmarks such as 'small caps', investing in very small stocks could enhance a fund's

average returns of the products in excess of a selected benchmark. The benchmarks we use are listed in the Internet Appendix and are standard in the investment industry.

We work with two versions of these performance measures: one based on gross returns and another one based on net returns. To compute net returns-based measures, we subtract one-twelfth of the annual pro forma fee based on a $50 million investment from the product's monthly return, using the fee information from eVestment summarized in Table II.[23]

Results in Table V indicate that, in the 13-year period of our study, and on an equal-weighted basis, the portfolio of all products recommended by investment consultants delivered average returns net of management fees of 6.31% per year (7.13% before management fees). These returns are, on average, 1.12% per annum *lower* than the returns obtained by other products available to plan sponsors, which are not recommended by consultants. When we risk-adjust returns using the three- and four-factor models, recommended products obtain an alpha of

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performance against this benchmark, but this 'outperformance' would be factored out in academic models. This is not the only source of differences between the approaches. Cremers et al. (2013) note that the practitioner and academic approaches can yield very different results, as the standard Fama-French and Carhart factor models may assign non-zero alphas even to passive benchmark indices such as the S&P 500 and Russell 2000. Also, the classification system on which benchmark-adjusted returns are based is ambiguous and leaves room for interpretation resulting in frequent misclassifications (some perhaps deliberate). For example, in a study of U.S. mutual funds, diBartolomeo and Witkowski (1997) find that almost 40% of all U.S. equity funds are misclassified.

[23] We focus in the remainder of the paper on net returns using fees obtained from eVestment for the last year of our sample (or latest available year for the product), since eVestment has a more complete coverage of our sample of products than the alternative source of fee data, IIS (which reports fees on a year-by-year basis). We estimate several models using IIS data in the Internet Appendix with no change to the conclusions. Note that none of our results take into account the impact of the fees of the investment consultants themselves.

0.39% per year, once annualized. This is still significantly lower than the alpha obtained by non-recommended products (the difference between recommended and non-recommended products is statistically significant at -0.97% per year). Risk-adjusting returns using benchmarks chosen to match the products' style and market capitalization delivers almost identical results. When we run similar regressions among the recommended products, separating the most recommended from the least recommended, the results also show that the underperformance of the recommended products on an equal-weighted basis is mostly concentrated among the most frequently recommended products (for details see the Internet Appendix).

When we perform the same analysis on a value-weighted basis recommended products still obtain lower returns (or CAPM alphas) than those obtained by non-recommended products, but outperform them based on a three- or four-factor model. None of these differences is statistically significant, however. Value-weighted returns and alphas are consistently lower, suggesting that smaller products perform relatively better.[24]

In Table VI we separately consider the subcategories within our sample: Large Cap Value, Large Cap Growth, Mid Cap Value, Mid Cap Growth, Small Cap Value, Small Cap Growth and Domestic Equity Core products. The results we obtain broadly confirm those presented in Table V: recommended products underperform other products in all the categories studied when returns are equal-weighted. On a value-weighted basis results are mixed.

As noted earlier, the investment consulting industry is highly concentrated with the top 10 consultants having 81 percent of the US market. The recommendations issued by the smallest

[24] Our equal- and value-weighted figures, once aggregated across recommendation categories, are generally in line with those reported by Busse et al. (2010) for their sample of institutional products.

half of consultants may therefore be less relevant in terms of impact, while still receiving the same weight as the recommendations issued by the largest consultants in our analysis. To address this concern we explore whether there are any substantial differences between recommendations issued by large and small investment consultants (for a subset of the years for which GA had separate data available for both groups of consultants). As reported in the Internet Appendix, we find little difference between the recommendations of large and small consultants: their recommendations seem to be highly correlated, and average product size, average asset management fees and past performance rankings of recommended products are similar.

Our results so far suggest that investment consultants are not able consistently to add value by selecting superior investment products. This is particularly true when we compare recommended products with non-recommended products on an equal-weighted basis.

D. Performance Robustness and Further Analysis

How can we explain these findings, given that we should expect recommended products to outperform other products by a margin sufficient to cover the cost of hiring the investment consultant? Why do the investment consultants select products that appear to underperform other products significantly on an equal-weighted basis, but not on a value-weighted basis? In this section we explore these issues in more detail. First we explore the possibility that backfill bias may affect our results and, in particular, that it may be responsible for the relatively good performance of non-recommended products, which would therefore constitute an unfair benchmark for recommended products. Second, we examine the impact of investment product size on performance. This allows us to assess the relative performance of recommended and the (generally) smaller non-recommended products controlling for the potential effect of product size on performance. Finally, we investigate the short-term performance of products that experience a

net change in the number of recommendations they receive, as it is possible that consultants' failure to add value is due not to their inability to identify outperforming products, but to the fact that they continue to recommend those products for too long.

Because we work with self-reported returns a natural concern in the measurement of performance is that the data might not accurately reflect the performance of worse performing products. Since managers may have a greater incentive to volunteer information to eVestment after a period of good performance, products may be subject to 'instant history' or backfill bias, as described by Fung and Hsieh (2000). Moreover, this problem could be more serious for smaller non-recommended products if they are subject to less scrutiny than their recommended counterparts. It is unlikely that this problem can ever be completely eliminated, but we follow the approach in Jagannathan et al. (2010) to determine the potential impact on our results. We eliminate the first one, two and three years of returns for each product and re-run our main performance regressions. By requiring three years of return history to show fund performance, this procedure also addresses another concern with our performance comparison: most pension sponsors and consultants require the existence of a three-year performance track record to be considered in the initial phases of a manager search (Del Guercio and Tkac, 2002).

Results reported in Table VII suggest that performance figures may have a backfill bias, but the evidence we find suggests that it is not enough to affect our main results. After eliminating the first three years of return history, on an equal-weighted basis the three-factor alphas of non-recommended products decline by only 0.25% (from 1.36% to 1.11%), and those of recommended products decline by 0.17% (0.39% to 0.22%). The difference is significantly smaller than the actual gap in performance between recommended and non-recommended products reported in Table V of -0.97% per year for equally-weighted portfolios.

Evidence from value-weighted returns indicates that the performance of recommended and non-recommended products as reported is very similar to the performance figures obtained after eliminating the first one to three years of reported history (regardless of the model used to measure performance). This suggests that backfill bias is not a problem among those products which also report assets under management or, to put it differently, that those fund managers that have backfilled data have probably backfilled only the return data.

A second concern is the impact of product size on returns. Tables I and III show that investment consultants tend to concentrate on larger products. Previous research has shown that funds that manage more assets perform worse (see Chen et al. (2004)), a finding that is consistent with results in Table V showing that funds recommended by consultants perform worse (in comparison with non-recommended products) on an equal-weighted than on a value-weighted basis. We therefore re-assess the investment performance of recommended products in light of this tendency. The choice of larger products may reflect the investment consultants' optimization of their own research and monitoring efforts, or a belief that recommending a large well-known fund manager will be easier to justify after the event. However, the preference for recommending large products may not be entirely free, for consultants may be required by plan sponsors to recommend products of a certain size, perhaps because of doubts about the ability of small products to handle a larger pool of assets.

To control for the impact of product size on performance, we use a regression-based generalization of the calendar time portfolio approach (see Hoechle et al. (2009) and Dahlquist et al. (2011)). This generalization relies on estimating, at the investment product level, a pooled linear regression model with Driscoll and Kraay (1998) standard errors. Driscoll-Kraay standard errors are robust to heteroskedasticity and general forms of cross-sectional and temporal

dependence. The advantage of the regression-based approach is that it is straightforward to include continuous and multivariate explanatory variables, and so to control for product size.

The pooled linear regression model we estimate has the following panel structure:

$$r_{i,t} = \left(\alpha + \alpha_z' z_{i,t}\right) + \left(\beta + \beta_z' z_{i,t}\right)' f_t + \varepsilon_{i,t} \quad (6)$$

where $r_{i,t}$ is the excess return for product i in period t, and where we condition on time-varying product characteristics $z_{i,t}$. Product characteristics include investment consultant ratings, captured by a full set of dummy variables, and de-trended log assets under management (AUM) at the end of the previous period.[25] The risk-adjusted performance of recommended products is computed using a four-factor model represented in equation (6) by the vector f_t.

Table VIII provides the results of estimating different specifications of equation (6). These specifications differ according to whether we control for lagged AUM, and whether we include products with no information available on AUM. The coefficients of interest are those of α_p, since they inform us if recommendations and the other control variables have predictive power over abnormal returns. In this table the constant captures the expected monthly excess return or alpha of a non-recommended product (of average size in the models that include lagged de-trended AUM as controls) and the coefficient associated with the recommended dummy indicates the expected extra performance delivered by recommended products. Models I and IV are the closest to the equal-weighted calendar time specifications showed in Table V. A difference between the results in Table V and Models I and IV of Table VIII is that the panel we

[25] We use de-trended log AUM (de-trended by subtracting from the log of AUM the mean of this variable across all period t observations) to address the possible non-stationarity of log AUM. However, almost identical results obtain if we replace de-trended log AUM with standard log AUM.

estimate in equation (6) is unbalanced and therefore the weight attached to each month in the sample is not the same. The panel gives the same weight to each individual observation whereas the portfolio method employed in Table V gives the same weight to each monthly observation.

Another source of difference between these results is that Table V shows results for portfolios that include each product as many times as they have been recommended whereas Table VIII does not. If we modify the weights in the panel regression to account for these differences, as indicated in Hoechle et al. (2009), both results coincide.[26] In model I, where performance is assessed using industry-standard excess returns over benchmark indices, recommended products underperform non-recommended products by 0.89% per year; less than the 1.17% per year reported in Table V but still highly statistically significant.[27] This difference shrinks if we exclude from the sample products that do not report AUM (Model II) and disappears when we control for the de-trended natural logarithm of AUM in each product at the end of the previous year (Model III).

Similar conclusions can be drawn by looking at four-factor alpha models (Models IV to VI), adjusted and unadjusted for product size. In model IV, recommended products underperform non-recommended products by 0.38% per year but the difference is not statistically significant this time. Moreover, once we control for lagged product size (Model VI), the underperformance

[26] Hoechle et al. (2009), following Loughran and Ritter (2000), argue however that weighting all observations equally makes more sense.

[27] Annualized differences are computed by multiplying monthly coefficients times 12. Notice that since monthly returns are linear in the (same) set of variables, it does not matter where the difference is calculated (i.e., for which values of the lagged AUM, the variable used as control).

of recommended products disappears or even turns into a small, but still not statistically significant, outperformance (0.32% per year).

Finally, we look at the performance of portfolios of products that experience a net increase (decrease) in the number of recommendations they receive. This analysis has two objectives: first, to explore whether consultants' failure to add value by their recommendations is due to their inability to identify outperforming products or to the fact that they keep them on their shortlist of recommended products for too long; and, second, to provide an alternative benchmark in the performance analysis, by concentrating on products that are unquestionably in the choice set of (at least some of) the consultants we study.

We proceed by forming two different portfolios. The first portfolio includes all investment products that experience a net increase in the number of recommendations received; these are products that, in net terms, are being added to the shortlist of recommended products. The second portfolio includes all investment products that experience a net decrease in the number of recommendations received; these are products that, in net terms, are being dropped from the shortlist of recommended products. Products are included in these portfolios in the month in which they experience the increase/decrease in the number of recommendations and kept there for 12 or 24 months. Each product is included in these portfolios as many times as it is newly recommended/de-recommended, thus giving more weight to products that experience a larger increase/decrease in the number of recommendations received.[28]

[28] It is possible that some of the portfolios that we consider to have experienced an increase/decrease in the number of recommendations did in fact receive the same number of recommendations as in the previous year, and that we capture instead the effect of the changing composition of the survey. However, because the coverage of the sample is large and relatively stable through time, this problem, which may add noise to our estimates, is likely to be limited.

Table IX compares the performance of these portfolios. Results indicate that products that experience a net increase in the number of recommendations do no better than products that are on average being de-recommended by consultants. In fact they do worse: the difference in performance goes from a few basis points per year to more than three percent per year in some specifications, but it is never statistically significant (the number of products in each portfolio is considerably smaller than in previous tables).

One of the objections that could be made against the results we presented in the previous section is that some of the non-recommended products included in the analysis are effectively off-limits to the consultants (because they are below the size threshold of plan sponsors, because they lack sufficient longevity, or for some other reason). However, results in Table IX suggest that consultants fail to identify superior future performers, even among the set of products that are on their radar. We conclude that the underperformance of recommended products can be explained by consultants' tendency to recommend relatively large products. This may reflect the fact plan sponsors and consultants are generally concerned about liquidity risk, and plan sponsors avoid products that are small relative to their holding size.[29] At the same time investment consultants may be inclined to focus on products that can be used broadly across their client base; this would economize the costs of monitoring client fund holdings, and would guard against a liquidity shortage in a product if, following a rating downgrade by the consultant, many plan sponsors withdrew their assets simultaneously. However, even allowing for this constraint, recommended products still fail consistently to outperform other products in our sample.

[29] We understand, for example, that plan sponsors would typically avoid holding more than 10% of the total assets under management of a product.

4. Conclusions

Using survey data from investment consultants with a combined share of around 90% of the consulting market, we analyze their recommendations of U.S. active equity products over the period 1999-2011. We examine the drivers, impact, and accuracy of these recommendations.

We find first that, while consultants' recommendations of fund products are partly a function of the past performance of those products (and of product size and fees), it is mainly the fund managers' non-performance attributes that drive recommendations. Consultants are not merely 'return-chasing' when they form their recommendations. Second, we find that investment consultants' recommendations have a large and significant effect on institutional asset allocation. Third, we find no evidence that consultants' recommendations add value to plan sponsors.

In addressing the reasons why consultants' recommendations fail to add value, we find a tendency of consultants to recommend large funds, which perform worse. There could also, of course, be a simple lack of skill. However, it is also possible that better performing fund managers are able to attract assets from plan sponsors without investment consultants' recommendations, whereas worse performing fund managers rely on consultants' recommendations to win such business. In this case worse performing fund managers would make more effort to cultivate consultants than better performing managers. If this effort is successful it would result in investment consultants recommending worse performers.

Our analysis shows performance in gross and net terms. The cost of pursuing a strategy of picking actively-managed funds, encouraged and guided by investment consultants, is considerable: the institutional funds in our sample charge, on average, 65 basis points a year, which is far in excess of the cost of alternative index-related strategies. Moreover, plan sponsors pursuing an active strategy tend to switch managers more often than those adopting an indexed

approach, incurring transition costs which further widen the gap between the two approaches. Consultants face a conflict of interest, as arguably they have a vested interest in complexity. Proposing an active U.S. equity strategy, which involves more due diligence, complexity, monitoring, switching, and therefore more consultancy work, drives up consulting revenues in comparison to simple, cheap solutions. This is an important topic for further research.

Whatever the reasons for the lack of added value in consultants' recommendations, it is striking that fund sponsors follow such recommendations to the extent, and at the expense, that they do. A possible explanation is that plan sponsors have reasons to engage investment consultants other than their fund manager recommendations; these reasons could include the hand-holding service described by Lakonishok et al. (1992), or the relationship of trust that investors build up with their adviser (see Gennaioli et al. (2014)).

However, while these reasons might explain why plan sponsors engage investment consultants in general, they do not tell us why they follow consultants' recommendations when they are apparently not rewarded for doing so. If plan sponsors know that they are not being rewarded for following consultants' recommendations, one possible reason for doing so is to hide behind consultants' recommendations when they have to account for their decisions. As Goyal and Wahal (2008) find, plan sponsors that are more likely to be sensitive to adverse publicity ('headline risk') are more liable to use investment consultants. Jones and Martinez (2014) put forward evidence that plan sponsors follow consultants' recommendations even against their own judgment. The tendency for plan sponsors to follow investment consultants, in the knowledge that their recommendations do not add value, would be evidence of an agency problem.

It is, however, unlikely that plan sponsors can reliably judge whether investment consultants add value or not. While fund managers testify to the rigor with which investment consultants scrutinize their performance, investment consultants themselves are shy of disclosing

the sort of information which would allow plan sponsors, or any outsider, to measure *their own* performance. Among the consultants whose aggregate recommendations we have analyzed, some will do better than others, and knowledge of differential performance would inform a plan sponsor's decision about which consultant to appoint. As it is, plan sponsors are making appointments partly uninformed, and some may be naïve about the actual utility of consultants' recommendations. An obvious policy response by regulators, or a market response by plan sponsors, is to require full disclosure of consultants' past recommendations so that such decisions are better informed and, as a consequence, their assets more efficiently allocated.

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Table I
Descriptive Statistics

The table presents descriptive statistics on the sample of investment consultants and institutional investment products used in our study. Products are classified as recommended (Rec.) and not recommended (Not Rec.). Average asset size is in millions of US dollars. The market cap-style based statistics in the second part of the table are averages over the 13 year period covered by the sample (1999 to 2011).

	Number of Investment Consultants	**Number of Recs.**	**Number of Products**			**Average Product Asset Size**		
			Rec.	Not Rec.	Total	Rec.	Not Rec.	Total
1999	25	459	116	849	965	7,911	560	1,871
2000	36	1,398	241	856	1,097	5,624	737	2,140
2001	27	966	230	993	1,223	4,168	828	1,659
2002	32	1,434	314	1,266	1,580	2,757	632	1,150
2003	30	1,444	357	1,306	1,663	3,244	721	1,382
2004	30	1,745	409	1,913	2,322	4,056	1,079	1,709
2005	29	1,940	452	1,959	2,411	3,925	994	1,641
2006	28	2,107	503	1,930	2,433	4,198	984	1,733
2007	29	2,297	526	1,909	2,435	3,836	1,108	1,749
2008	30	2,164	557	1,842	2,399	2,611	650	1,138
2009	29	1,887	533	1,742	2,275	2,982	655	1,219
2010	27	1,608	476	1,672	2,148	3,481	798	1,414
2011	28	1,501	454	1,537	1,991	3,549	864	1,490
Large Cap Growth	29	437	90	345	435	6,045	927	2,185
Large Cap Value	29	455	91	315	406	5,610	1,257	2,334
Mid Cap Growth	24	150	38	121	159	2,216	513	958
Mid Cap Value	25	108	29	92	121	2,753	564	1,169
Small Cap Growth	26	160	50	204	254	1,309	483	664
Small Cap Value	27	167	51	191	242	1,519	499	746
Core	23	316	104	491	595	3,147	902	1,332

Table II
Product Fees

This table shows average fees of the recommended (Rec.) and not recommended (Not Rec.) institutional investment products used in our study. Panel A shows fees in the eVestment dataset as of the last year of our sample, 2011, or latest available. Panel B shows average fees in the Informa Investment Solutions (IIS) dataset over the 13 year period covered by our study (1999 to 2011). Fees are in percent per year.

Panel A - eVestment	**Fees $10M**			**Fees $50M**			**Fees $100M**		
	Rec.	Not Rec.	All	Rec.	Not Rec.	All	Rec.	Not Rec.	All
Large Cap Growth	0.67	0.72	0.71	0.60	0.63	0.62	0.54	0.57	0.56
Large Cap Value	0.67	0.70	0.69	0.57	0.60	0.59	0.51	0.55	0.54
Mid Cap Growth	0.77	0.80	0.79	0.73	0.71	0.72	0.68	0.66	0.67
Mid Cap Value	0.79	0.82	0.81	0.71	0.72	0.71	0.63	0.66	0.65
Small Cap Growth	0.96	0.94	0.95	0.92	0.87	0.89	0.87	0.82	0.83
Small Cap Value	0.96	0.94	0.95	0.89	0.88	0.88	0.83	0.83	0.83
Core	0.63	0.72	0.70	0.57	0.62	0.61	0.52	0.57	0.56
All	0.75	0.78	0.77	0.68	0.69	0.69	0.63	0.63	0.63
Panel B - IIS	**Fees $10M**			**Fees $50M**			**Fees $100M**		
	Rec.	Not Rec.	All	Rec.	Not Rec.	All	Rec.	Not Rec.	All
Large Cap Growth	0.71	0.77	0.76	0.61	0.62	0.61	0.54	0.56	0.55
Large Cap Value	0.75	0.71	0.72	0.56	0.56	0.56	0.50	0.50	0.50
Mid Cap Growth	0.79	0.83	0.82	0.73	0.73	0.73	0.68	0.68	0.68
Mid Cap Value	0.83	0.83	0.83	0.71	0.69	0.70	0.63	0.62	0.63
Small Cap Growth	0.96	0.96	0.96	0.91	0.87	0.88	0.86	0.82	0.83
Small Cap Value	0.96	0.95	0.96	0.84	0.86	0.87	0.81	0.81	0.82
Core	0.65	0.74	0.72	0.54	0.58	0.57	0.52	0.52	0.52
All	0.81	0.82	0.82	0.68	0.68	0.68	0.62	0.63	0.63

Table III
What Drives Consultants' Recommendations?

This table reports pooled time-series cross-sectional Poisson and Negative Binomial regressions of the number of investment consultants' recommendations received by a product on past gross performance measures, asset management fees and variables capturing soft investment and service characteristics of the asset managers as perceived by the consultants. Soft investment factors, and service factors, are expressed using the fractional rank of each asset manager in the sample. An asset manager's fractional rank, for a given variable, represents its percentile rank relative to other asset managers in the same period, and ranges from 0 to 1. Past gross performance measures (excess returns over benchmarks and three factor alphas) and fees (as at the end of the sample period) are expressed using the fractional rank of each product in its investment category. All regressions include a lagged measure of return volatility, lagged assets under management (in $ billions) and a full set of time dummies (not reported). Each column represents a separate regression. z-scores based on standard errors clustered at the product level are included in parentheses. The second part of the table displays model-implied average marginal effects and the bottom part shows the squared correlation between observed recommendations and model-predicted recommendations. ***, **, * denote statistical significance at 1%, 5% and 10% levels respectively.

	I (Poisson)	**II** (Poisson)	**III** (Poisson)	**IV** (Poisson)
Soft Investment Factors (t)	2.37	2.40		
	(17.18)***	(17.25)***		
- Consistent Inv. Philosophy (t)			1.18	1.19
			(8.28)***	(8.34)***
- Clear Decision Making (t)			0.39	0.39
			(2.91)***	(2.97)***
- Capable Inv. Professionals (t)			0.84	0.84
			(6.14)***	(6.10)***
Service Factors (t)	0.43	0.42		
	(3.49)***	(3.43)***		
- Relationship Manager (t)			0.26	0.26
			(2.69)***	(2.66)***
- Useful Reports (t)			0.02	0.01
			(0.19)	(0.12)
- Presentation to Consultants (t)			0.32	0.33
			(2.71)***	(2.82)***
Past Performance Rank - Return (t)	0.23		0.21	
	(3.03)***		(2.94)***	
Past Performance Rank - Alpha (t)		0.16		0.15
		(2.23)**		(2.20)**
Fees (T)	0.48	0.48	0.46	0.46
	(4.08)***	(4.07)***	(7.57)***	(7.53)***
Assets Under Management (t-1)	0.02	0.02	0.02	0.02
	(9.22)***	(8.83)***	(14.83)***	(14.20)***
Return Volatility (t-1)	1.04	0.76	1.03	0.77
	(1.01)	(0.73)	(1.49)	(1.11)
		Average Marginal Effects		
Soft Investment Factors (t)	5.78***	5.84***		
- Consistent Inv. Philosophy (t)			2.89***	2.91***
- Clear Decision Making (t)			0.94***	0.96***
- Capable Inv. Professionals (t)			2.05***	2.05***
Service Factors (t)	1.04***	1.03***		
- Relationship Manager (t)			0.63***	0.63***
- Useful Reports (t)			0.04	0.03
- Presentation to Consultants (t)			0.77***	0.80***
Past Performance Rank - Return (t)	0.56***		0.50***	
Past Performance Rank - Alpha (t)		0.39**		0.36**
Fees (T)	1.16***	1.16***	1.12***	1.11***
Assets Under Management (t-1)	0.05***	0.05***	0.05***	0.05***
Return Volatility (t-1)	2.54	1.85	2.50	1.88
Squared Corr (Y; $\hat{Y}$)	0.44	0.44	0.45	0.45
Number of observations	3,507	3,507	3,501	3,501

Table III–*Continued*

	V (NB)	VI (NB)	VII (NB)	VIII (NB)
Soft Investment Factors (t)	2.41 (17.63)***	2.42 (17.79)***		
- Consistent Inv. Philosophy (t)			1.20 (7.94)***	1.21 (8.00)***
- Clear Decision Making (t)			0.43 (2.98)***	0.43 (3.01)***
- Capable Inv. Professionals (t)			0.89 (6.17)***	0.88 (6.11)***
Service Factors (t)	0.44 (3.39)***	0.44 (3.40)***		
- Relationship Manager (t)			0.25 (2.46)**	0.25 (2.50)**
- Useful Reports (t)			0.06 (0.60)	0.05 (0.55)
- Presentation to Consultants (t)			0.24 (1.94)*	0.25 (2.00)**
Past Performance Rank - Return (t)	0.19 (2.54)**		0.17 (2.33)**	
Past Performance Rank - Alpha (t)		0.13 (1.67)*		0.11 (1.66)*
Fees (T)	0.59 (4.92)***	0.59 (4.93)***	0.58 (9.08)***	0.58 (9.09)***
Assets Under Management (t-1)	0.03 (6.78)***	0.03 (6.77)***	0.03 (14.14)***	0.03 (14.16)***
Return Volatility (t-1)	2.52 (2.42)**	2.34 (2.24)**	2.44 (3.52)***	2.27 (3.28)***
			Average Marginal Effects	
Soft Investment Factors (t)	6.45***	6.48***		
- Consistent Inv. Philosophy (t)			3.21***	3.23***
- Clear Decision Making (t)			1.15***	1.16***
- Capable Inv. Professionals (t)			2.37***	2.35***
Service Factors (t)	1.18***	1.18***		
- Relationship Manager (t)			0.66**	0.67**
- Useful Reports (t)			0.15	0.14
- Presentation to Consultants (t)			0.64*	0.66**
Past Performance Rank - Return (t)	0.50**		0.44**	
Past Performance Rank - Alpha (t)		0.33*		0.31*
Fees (T)	1.58***	1.58***	1.54***	1.54***
Assets Under Management (t-1)	0.09***	0.09***	0.08***	0.08***
Return Volatility (t-1)	6.75**	6.26**	6.51**	6.07**
Squared Corr (Y; $\hat{Y}$)	0.25	0.25	0.27	0.26
Number of observations	3,507	3,507	3,501	3,501

***, **, * Statistically significant at 1%, 5% and 10% levels respectively

Table IV
Regressions of Asset Flows on Past Consultants' Recommendations

This table reports the results of pooled time-series cross-sectional regressions of yearly Dollar and percentage asset flows on past consultants' recommendation changes (and levels). Dollar flows are expressed in millions of Dollars. Percentage flows are computed as the ratio of Dollar flows to total assets under management at the end of the previous year. Each column represents a separate regression. All regressions also include lagged measures of the fractional gross performance rank of the investment products in the sample, lagged assets under management (log assets in the percentage flow regressions), lagged return volatility, an intercept and a full set of time dummies (which are not reported in the table). The change in consultants' recommendations is the change in the percentage of short list recommendations received by a product over the total possible. A portfolio's fractional rank represents its percentile performance relative to other equity funds in the same category and period, and ranges from 0 to 1. Fractional ranks are defined on the basis of a fund's one-year excess returns over its benchmark and three factor alphas. t-statistics based on standard errors clustered at the product level are included in parenthesis. ***, **, * denote statistical significance at 1%, 5% and 10% levels respectively.

	Dollar Flow			**Percentage Flows**		
	I	II	III	IV	V	VI
Chg. in Recommendations (t-1)	2,403.90	2,509.54		0.29	0.24	
	(2.75)***	(2.66)***		(4.35)***	(3.53)***	
Chg. in Recs * I (Chg. >0) (t-1)			1,987.42			0.28
			(1.38)			(2.61)***
Chg. In Recs * I (Chg. ≤0) (t-1)			3,023.69			0.29
			(2.85)***			(2.38)**
Recommendations (t-1)		-190.57			0.08	
		(-0.24)			(1.47)	
Performance Rank - Return (t-1)	438.23	437.66	436.65	0.24	0.24	0.24
	(7.18)***	(7.11)***	(7.12)***	(12.04)***	(12.05)***	(12.05)***
Performance Rank - Alpha (t-1)	32.91	32.30	32.19	0.11	0.11	0.11
	(0.52)	(0.51)	(0.51)	(5.14)***	(5.15)***	(5.14)***
Total Net Assets (t-1)	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
	(-3.33)***	(-2.80)***	(-3.10)***	(-16.18)***	(-14.91)***	(-15.32)***
Return Volatility (t-1)	-2,151.19	-2,122.88	-2,107.92	-1.08	-1.08	-1.08
	(-4.42)***	(-4.17)***	(-4.03)***	(-5.94)***	(-6.00)***	(-5.93)***
Year Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.08	0.08	0.08	0.12	0.12	0.12
Number of observations	9,094	9,094	9,094	9,094	9,094	9,094

Table V
Performance of Recommended and Not Recommended Products

This table shows the net of fees performance of the portfolio of all US equity actively managed products recommended by the investment consultants in our sample during the 1999 to 2011 period, as well as the net of fees performance of institutional products not recommended by any of the consultants. The table also shows the difference in performance between the two. Performance is measured using raw returns, returns in excess of a benchmark chosen to match the product style and market capitalization, and one, three and four factor alphas (corresponding to CAPM, the Fama-French three factor model and Fama-French-Carhart model). Excess returns and alphas are expressed in % per year. These statistics are computed on monthly returns and annualized by multiplying returns and alphas by twelve. Results reported in Panel A are gross of asset managers' fees whereas results reported in Panel B are net of those fees. The table shows the results for equally weighted portfolios of products and for portfolios of products weighted using total net assets at the end of the previous year. t-statistics based on standard errors, robust to conditional heteroscedasticity and serial correlation of up to two lags as in Newey and West (1987), are reported in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% levels respectively.

		Avg. Returns	Avg. Excess Ret. over Benchmark	One Factor Alpha	Three Factor Alpha	Four Factor Alpha
Panel A: Gross Returns						
Equally Weighted	Recommended Products	7.13%	1.25%	2.43%	1.14%	1.14%
		(1.40)	(2.14)**	(2.63)***	(1.42)	(1.36)
	Not Recommended Products	8.13%	2.35%	3.52%	2.00%	2.00%
		(1.59)	(3.19)***	(3.30)***	(2.33)**	(2.33)**
	Recommended - Not Recommended Products	-1.00%	-1.10%	-1.09%	-0.85%	-0.86%
		(-2.01)**	(-3.03)***	(-2.49)**	(-2.31)**	(-2.33)**
Value Weighted	Recommended Products	4.90%	0.96%	0.18%	0.39%	0.39%
		(0.92)	(1.26)	(0.22)	(0.48)	(0.48)
	Not Recommended Products	5.16%	0.57%	0.55%	-0.32%	-0.23%
		(1.02)	(0.73)	(0.55)	(-0.41)	(-0.31)
	Recommended - Not Recommended Products	-0.26%	0.40%	-0.37%	0.72%	0.62%
		(-0.20)	(0.51)	(-0.29)	(0.73)	(0.68)
Panel B: Net Returns						
Equally Weighted	Recommended Products	6.31%	0.51%	1.62%	0.39%	0.39%
		(1.24)	(0.95)	(1.77)*	(0.48)	(0.46)
	Not Recommended Products	7.43%	1.67%	2.82%	1.36%	1.30%
		(1.51)	(2.58)**	(2.87)***	(1.70)*	(1.58)
	Recommended - Not Recommended Products	-1.12%	-1.17%	-1.21%	-0.97%	-0.92%
		(-2.29)**	(-3.16)***	(-2.70)***	(-2.41)**	(-2.38)**
Value Weighted	Recommended Products	4.29%	0.36%	-0.43%	-0.18%	-0.18%
		(0.85)	(0.46)	(-0.52)	(-0.21)	(-0.22)
	Not Recommended Products	4.51%	-0.11%	-0.10%	-0.97%	-0.88%
		(0.93)	(-0.16)	(-0.11)	(-1.23)	(-1.16)
	Recommended - Not Recommended Products	-0.22%	0.48%	-0.33%	0.79%	0.70%
		(-0.18)	(0.58)	(-0.27)	(0.82)	(0.76)

Table VI
Performance Difference by Market Capitalization and Style Category

The table shows, for each market capitalization and style category in our sample, the difference in performance between products recommended by the investment consultants and all other products during the 1999 to 2011 period. Performance is measured using raw returns, returns in excess of a benchmark chosen to match the product style and market capitalization, and one, three and four factor alphas (corresponding to CAPM, the Fama-French three factor model and Fama-French-Carhart model). Excess returns and alphas are expressed in % per year. These statistics are computed on monthly returns and annualized by multiplying monthly returns and alphas times twelve. All reported figures are net of management fees. The first part of the table shows the results for equally weighted portfolios of products whereas the second part of the table shows the same statistics for portfolios of products weighted using total net assets at the end of the previous year. t-statistics based on standard errors, robust to conditional heteroscedasticity and serial correlation of up to two lags as in Newey and West (1987), are reported in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% levels respectively.

		Recommended - Not Recommended Products Performance				
		Avg. Returns	Avg. Ex. Ret. over Benchmark	One Factor Alpha	Three Factor Alpha	Four Factor Alpha
Equally Weighted	Large Cap Growth	-1.56%	-1.56%	-1.75%	-1.05%	-1.00%
		(2.04)**	(2.04)**	(-2.70)***	(-2.41)**	(-2.30)**
	Large Cap Value	-0.45%	-0.45%	-0.55%	-0.86%	-0.72%
		(-0.72)	(-0.72)	(-0.96)	(-1.83)*	(-1.73)*
	Mid Cap Growth	-0.42%	-0.42%	-0.47%	-0.23%	-0.20%
		(-0.87)	(-0.87)	(-0.97)	(-0.58)	(-0.49)
	Mid Cap Value	-0.11%	-0.11%	-0.17%	-0.06%	-0.04%
		(-0.26)	(-0.26)	(-0.41)	(-0.14)	(-0.10)
	Small Cap Growth	-1.25%	-1.25%	-1.38%	-1.36%	-1.57%
		(-1.21)	(-1.21)	(-1.38)	(-1.63)	(-1.85)*
	Small Cap Value	-0.45%	-0.45%	-0.46%	-0.77%	-0.82%
		(-1.09)	(-1.09)	(-1.09)	(-1.95)*	(-2.02)**
	Core	-0.29%	-0.45%	-0.47%	-0.45%	-0.46%
		(-0.63)	(-0.98)	(-1.38)	(-1.44)	(-1.51)
Value Weighted	Large Cap Growth	0.23%	0.23%	0.08%	0.71%	0.55%
		(0.17)	(0.17)	(0.06)	(0.68)	(0.55)
	Large Cap Value	0.72%	0.72%	0.70%	0.18%	0.29%
		(0.74)	(0.74)	(0.73)	(0.20)	(0.34)
	Mid Cap Growth	1.28%	1.28%	1.29%	1.62%	1.69%
		(2.11)**	(2.11)**	(2.14)**	(2.84)***	(3.05)***
	Mid Cap Value	-0.68%	-0.68%	-0.70%	-0.57%	-0.50%
		(-0.89)	(-0.89)	(-0.93)	(-0.81)	(-0.71)
	Small Cap Growth	1.10%	1.10%	1.08%	1.40%	1.40%
		(1.18)	(1.18)	(1.16)	(1.65)	(1.64)
	Small Cap Value	-0.48%	-0.48%	-0.45%	-0.77%	-0.81%
		(-0.61)	(-0.61)	(-0.58)	(-1.05)	(-1.10)
	Core	0.45%	0.48%	0.53%	0.61%	0.56%
		(0.83)	(0.92)	(1.05)	(1.37)	(1.54)

Table VII
Backfill Bias in Reported Returns

The table shows the performance of portfolios of recommended and not recommended products as reported and eliminating the first one to three years of reported history for each product. Performance is measured using raw returns, returns in excess of a benchmark chosen to match the product style and market capitalization, and one, three and four factor alphas (corresponding to CAPM, the Fama-French three factor model and Fama-French-Carhart model). Excess returns and alphas are expressed in % per year. These statistics are computed on monthly returns and annualized by multiplying monthly excess returns and alphas by twelve. All reported figures are net of asset management fees. The first part of the table shows the results for equally weighted portfolios of products whereas the second part of the table shows the same statistics for portfolios of products weighted using total net assets at the end of the previous year. t-statistics based on standard errors, robust to conditional heteroscedasticity and serial correlation of up to two lags as in Newey and West (1987), are reported in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% levels respectively.

		Avg. Returns	Avg. Excess Ret. over Benchmark	One Factor Alpha	Three Factor Alpha	Four Factor Alpha
Equally Weighted	Recommended Products	6.31%	0.51%	1.62%	0.39%	0.39%
		(1.24)	(0.95)	(1.77)*	(0.48)	(0.46)
	Rec. Products (with 1Y Backfill correction)	6.24%	0.42%	1.53%	0.34%	0.32%
		(1.22)	(0.81)	(1.75)*	(0.43)	(0.40)
	Rec. Products (with 2Y Backfill correction)	6.11%	0.35%	1.41%	0.22%	0.22%
		(1.20)	(0.66)	(1.60)	(0.28)	(0.26)
	Rec. Products (with 3Y Backfill correction)	6.06%	0.33%	1.37%	0.22%	0.22%
		(1.19)	(0.63)	(1.55)	(0.27)	(0.27)
	Not Recommended Products	7.43%	1.67%	2.82%	1.36%	1.30%
		(1.51)	(2.58)**	(2.87)***	(1.70)*	(1.58)
	Not Rec. Products (with 1Y Backfill correction)	7.20%	1.54%	2.59%	1.17%	1.12%
		(1.47)	(2.16)**	(2.69)***	(1.47)	(1.37)
	Not Rec. Products (with 2Y Backfill correction)	7.12%	1.49%	2.52%	1.12%	1.08%
		(1.45)	(2.09)**	(2.60)**	(1.39)	(1.30)
	Not Rec. Products (with 3Y Backfill correction)	7.07%	1.39%	2.47%	1.11%	1.06%
		(1.45)	(1.99)**	(2.56)**	(1.37)*	(1.27)
Value Weighted	Recommended Products	4.29%	0.36%	-0.43%	-0.18%	-0.18%
		(0.85)	(0.46)	(-0.52)	(-0.21)	(-0.22)
	Rec. Products (with 1Y Backfill correction)	4.31%	0.37%	-0.41%	-0.17%	-0.18%
		(0.85)	(0.47)	(-0.49)	(-0.20)	(-0.22)
	Rec. Products (with 2Y Backfill correction)	4.33%	0.40%	-0.39%	-0.13%	-0.13%
		(0.86)	(0.50)	(-0.46)	(-0.15)	(-0.16)
	Rec. Products (with 3Y Backfill correction)	4.34%	0.40%	-0.37%	-0.12%	-0.13%
		(0.86)	(0.50)	(-0.45)	(-0.15)	(-0.16)
	Not Recommended Products	4.51%	-0.11%	-0.10%	-0.97%	-0.88%
		(0.93)	(-0.16)	(-0.11)	(-1.23)	(-1.16)
	Not Rec. Products (with 1Y Backfill correction)	4.50%	-0.13%	-0.11%	-0.97%	-0.89%
		(0.92)	(-0.18)	(-0.12)	(-1.23)	(-1.16)
	Not Rec. Products (with 2Y Backfill correction)	4.51%	-0.13%	-0.10%	-0.96%	-0.87%
		(0.93)	(-0.18)	(-0.11)	(-1.22)	(-1.15)
	Not Rec. Products (with 3Y Backfill correction)	4.57%	-0.11%	-0.04%	-0.86%	-0.77%
		(0.94)	(-0.16)	(-0.04)	(-1.08)	(-0.99)

Table VIII
Product Size and Performance

This table reports the coefficient estimates and t-statistics (in parentheses) from pooled OLS regressions with Driscoll-Kraay standard errors. The standard error estimates are heteroscedasticity consistent and robust to both cross-sectional dependence and autocorrelation. In systems I, II and III, the dependent variable is the monthly net return of the investment product in excess of a benchmark chosen to match the product style and market capitalization. In systems IV, V and VI the dependent variable is the monthly net excess return of the investment product over the risk free rate and the explanatory variables are obtained by aid of a Kronecker expansion between the factors of a Carhart (1997) like performance measurement model on the one hand, and a recommendation dummy and the natural logarithm of product assets at the end of the previous year on the other. For brevity, the table does not present the estimation results for the factors or the interaction terms between product characteristics (including the recommendation dummy) and factors. We provide p-values of Wald tests of the difference in annualized returns between recommended products and non-recommended products in square brackets. ***, **, * denote statistical significance at 1%, 5% and 10% levels respectively.

	I	**II**	**III**	**IV**	**V**	**VI**
	(B. Adj.)	(B. Adj.)	(B. Adj.)	(FFC)	(FFC)	(FFC)
Constant	0.00088	0.00014	0.00007	0.00076	0.00015	0.00006
	(1.80)*	(0.33)	(0.18)	(1.29)	(0.29)	(0.11)
Recommended	-0.00074	-0.00029	0.00004	-0.00031	-0.00020	0.00026
	(-2.61)***	(-1.12)	(0.16)	(-1.45)	(-1.07)	(1.11)
Log AUM			-0.00015			-0.00022
			(-3.62)***			(-3.80)***
Factors	No	No	No	4 Factors	4 Factors	4 Factors
Interactions	No	No	No	Yes	Yes	Yes
Sample	Full	Restricted	Restricted	Full	Restricted	Restricted
Observations	210,607	151,444	151,444	210,607	151,444	151,444
Groups	1,980	1,916	1,916	1,980	1,916	1,916
R-squared	0.00	0.00	0.00	0.77	0.84	0.84
			Annualized Differences in Performance			
Recommended - Not Recommended	-0.89%	-0.35%	0.04%	-0.38%	-0.24%	0.32%
	[0.00]***	[0.26]	[0.87]	[0.14]	[0.28]	[0.27]

Table IX
Net Change in Number of Recommendations and Performance

The table shows the performance of portfolios of US equity actively managed products that experience a net increase (decrease) in the number of recommendations in the twelve or twenty-four month period following the recommendation change. Performance is measured using raw returns, returns in excess of a benchmark chosen to match the product style and market capitalization, and one, three and four factor alphas (corresponding to CAPM, the Fama-French three factor model and Fama-French-Carhart model). Excess returns and alphas are expressed in % per year. All reported figures are net of fees. The first part of the table shows the results for equally weighted portfolios of products whereas the second part of the table shows the same statistics for portfolios of products weighted using total net assets at the end of the previous year. t-statistics based on standard errors, robust to conditional heteroscedasticity and serial correlation of up to two lags as in Newey and West (1987), are reported in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% levels respectively.

		Avg. Returns	Avg. Excess Ret. over Benchmark	One Factor Alpha	Three Factor Alpha	Four Factor Alpha
		12 Month Period Following Addition/Deletion				
Equally Weighted	Increase in Number of Recommendations	4.53%	-0.10%	1.45%	0.25%	0.21%
		(0.81)	(0.16)	(1.49)	(0.31)	(0.25)
	Decrease in Number of Recommendations	6.11%	0.44%	3.08%	0.93%	1.00%
		(1.11)	(0.82)	(1.87)*	(0.71)	(0.80)
	Difference	-1.58%	-0.55%	-1.63%	-0.67%	-0.79%
		(-0.97)	(-0.76)	(-1.01)	(-0.61)	(-0.84)
Value Weighted	Increase in Number of Recommendations	1.49%	-0.97%	-1.60%	-0.79%	-0.87%
		(0.25)	(-0.65)	(-0.92)	(-0.67)	(-0.81)
	Decrease in Number of Recommendations	4.05%	-0.05%	1.06%	0.21%	0.28%
		(0.79)	(-0.06)	(0.71)	(0.19)	(0.26)
	Difference	-2.56%	-0.93%	-2.67%	-1.00%	-1.15%
		(-0.84)	(-0.56)	(-0.89)	(-0.52)	(-0.67)
		24 Month Period Following Addition/Deletion				
Equally Weighted	Increase in Number of Recommendations	4.45%	-0.18%	1.10%	0.22%	0.20%
		(0.79)	(-0.29)	(1.25)	(0.28)	(0.25)
	Decrease in Number of Recommendations	6.38%	0.59%	3.10%	1.24%	1.28%
		(1.17)	(1.10)	(1.97)**	(0.94)	(1.00)
	Difference	-1.92%	-0.77%	-2.00%	-1.03%	-1.08%
		(-1.24)	(-1.15)	(-1.30)	(-1.00)	(-1.18)
Value Weighted	Increase in Number of Recommendations	1.00%	-1.20%	-2.38%	-1.31%	-1.35%
		(0.17)	(-0.83)	(-1.40)	(-1.13)	(-1.26)
	Decrease in Number of Recommendations	4.35%	-0.11%	1.11%	0.57%	0.61%
		(0.95)	(-0.16)	(0.77)	(0.54)	(0.60)
	Difference	-3.35%	-1.09%	-3.49%	-1.88%	-1.96%
		(-1.16)	(-0.69)	(-1.23)	(-1.03)	(-1.18)

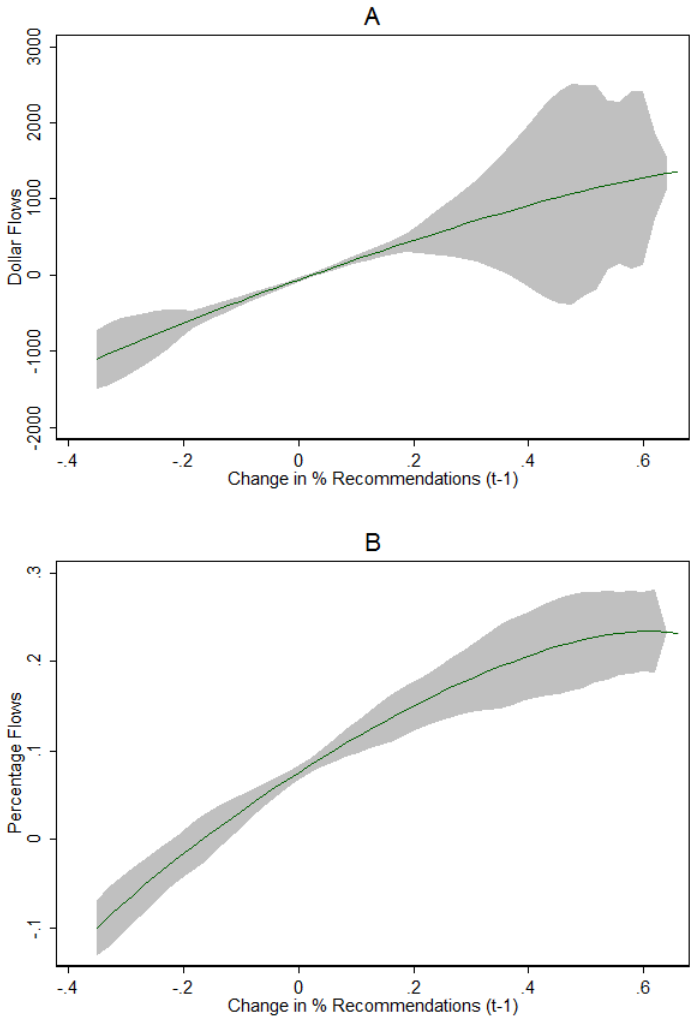

Figure 1. Flow-recommendation Relation. This figure shows the results of estimating kernel weighted local linear regressions of Dollar flows (Panel A) and percentage flows (Panel B) on lagged changes in consultants' recommendations. Dollar flows are expressed in millions of Dollars. Percentage flows are computed as the ratio of Dollar flows to total assets under management at the end of the previous year. The change in consultants' recommendations is the change in the percentage of short list recommendations received by a product over the total possible. The figures are produced using the Epanechnikov kernel and a window width of 0.5 and include 90% confidence bands.