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Overconfidence and Active Management: An Empirical Study across Swiss Pension Plans

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Pension plans in Switzerland favor active management over indexing to implement their strategic asset allocation. Empirical surveys show, however, that their success has been below expectations, as the median performance of Swiss pension plans in domestic and international equities is below market indices even gross of fees. The results of this paper's survey across decisionmakers of Swiss pension plans sheds some light on why active management is still so popular across Swiss pension plans. On average the participants in the sample are prone to the better-than-average-effect. A majority expects their managers and their overall pension plan to outperform the other survey participants in the future. The subjective perceptions of the own skill level relative to the competitors can explain the popularity of active management across Swiss pension plans.

Keywords: Better-than-average-effect, Active management, Forecasting, Pension plans, Manager selection

INTRODUCTION

The goal to be above average is deeply rooted in human nature and can be observed in many different domains. Studies in psychology show that people also tend to have the illusion that they are capable of delivering above average performances in various tasks (Taylor and Brown [1988]) despite having no adequate means to compare themselves with a representative average. This is often referred to as one facet of overconfidence called the "better-than-average-effect" and financial markets are no exception with respect to such an effect across investors.

In contrast to other domains, an adequate measure of the average performance is easily available on financial markets as data about various broad market-capitalized indices are freely accessible for investors. However, beating the average is difficult. As Sharpe [1991] demonstrated, active management is a zero-sum game and empirical evidence shows that only a minor percentage of all investors are able to beat the performance of broad market indices net of fees in the long run. On average Swiss pension plans are no exception, as they have failed to beat equity market index returns. Nevertheless the lure of potential outperformance ensures active management remains popular across Swiss pension plans, and the decision makers express surprisingly high confidence to beat their peers in the future. The better-than-average-effect can explain the gap between Swiss pension plans' expectations about their future success and their realized historical success.

The contribution to research of this paper is twofold. First, evidence is presented that the implementation of the strategic asset allocation with active managers is more popular but historically not more successful than indexing from a risk-return perspective across Swiss pension plans. In the last couple of years, Swiss pension plans achieved on average lower returns than broad market indices in domestic and international equities. The second contribution deals with expectations concerning the future performance of their own pension plans in a sample of decision makers at Swiss pension plans. Their answers to the author's questionnaire reveal that they expect their own pension plans as well as their managers to outperform other participants in the sample and to be able to select above average managers. Such optimistic expectations are puzzling when the average historical performance is taken into account and indicates that the participants in the sample are indeed prone to the better-than-average-effect.

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It is far beyond the scope of this paper to take a general view on the advantages and disadvantages of active management for Swiss pension plans. Successful active management depends on an array of circumstances such as goals, skills, expectations, risk-aversions and constraints. So there is no way to argue for an optimal degree of active management in general because there is too much heterogeneity across Swiss pension plans with respect to those different circumstances. However, this paper argues that susceptibility to the better-than-average-effect can bias the judgment of the own skills relative to other investors and therefore can explain the heavy reliance of the Swiss pension plan industry on active management in equities despite the lack of success.

The remainder of the paper is organized as follows. The second section reviews related research on active management with a special focus on pension plan performances and on the better-than-average-effect. The third section outlines the special properties of a sample based on Swiss pension plans and describes the environment and the framework in which Swiss pension plans operate. The fourth section describes the data including the answers from the author's questionnaire for the decision makers of Swiss pension plans. The fifth section presents the performance of Swiss pension plans relative to market indices and the proneness to the better-than-average-effect in the sample. Together with the conclusions, the final section discusses implications of the results and addresses alternative explanations for the popularity of active management across Swiss pension plans.

RELATED RESEARCH

This paper does not go into detail on the ongoing debate about the success achievable through active management, but a few introductory phrases shed some light on the basic framework in which the results in this paper have to be viewed. Then the historical performance of pension plans in various countries relative to market indices will be addressed. The last part of this section focuses on the better-than-average-effect whose roots are in the psychological literature.

Decades ago the discussion started with the development of the CAPM (Sharpe [1964]), the Efficient Market Hypothesis by Fama [1970] and its weaknesses pointed out by Roll [1977] and Grossman and Stiglitz [1980]. Since then the basic question has been whether a broad market index represents a better investment opportunity than an actively managed portfolio. Carhart [1997], Daniel et al. [1997] and Malkiel [2004] all present empirical evidence that most mutual fund managers are unable to deliver a persistent outperformance versus a broad market index net of fees. By the same token there is no doubt that some active managers delivered an outperformance versus market indices (Siegel, Kroner and Clifford [2001]), maybe due to luck or skill, and investing in such managers would have yielded a significantly higher return than purely indexed exposure to markets. So how did the pension plan industry perform so far?

Frauenlob [1998] describes investment strategies for Swiss pension plans and reports that pension plans with a more active implementation of the strategic asset allocation do not perform better than other pension plans. He points out that most of the pension plans did not outperform broad market indices net of fees in different asset classes and over different time periods. Characteristics of a pension plan such as size, assets under management or pension scheme type offered no explanation for the degree of active management in his study. The results of previous studies in other countries about the success of active managers for pension funds are mixed, but the majority does not favor active management. Lakonishok, Shleifer and Vishny [1992] report that from 1983 to 1989 most of the active equity managers in a sample of 769 funds that managed assets of U.S. pension plans delivered an underperformance and in total underperformed the S&P 500 by 1.3% p.a. gross of fees. In contrast Berzins and Trzcinka [2005] report that a sample of 549 U.S. equity portfolios at U.S. pension plans outperformed the S&P 500 by a mean of 0.65% p.a. gross of fees from 1993 to 2003. For a sample of UK pension funds Blake, Lehman and Timmermann [1999] conclude that the pension plans have no selection or timing skills. In a later report Blake, Lehman and Timmermann [2002] demonstrated that in a sample of 306 UK pension funds from 1986 to 1994 the median pension plan underperformed a broad market index by 0.15% p.a. in UK equities and 0.06% p.a. in international equities gross of fees. On a total portfolio level 138 UK pension plans were able to realize an outperformance versus an aggregated benchmark and 168 delivered an underperformance. The authors further observed a low cross-sectional variability in returns indicating that the UK pension plan managers tend to take low relative risk versus market indices. In a sample of 2,175 equity portfolios of UK pension funds Tonks [2001] reports an average underperformance of 0.006% p.a. against the FTSE All Share Index gross of fees from March 1983 to December 1997. However, he points out that there is significant persistence across outperformers as well as across underperformers Stanko [2003] reports that on average active management added value to the performance of 21 public pension plans in Poland from June 1999 to March 2003 on an overall portfolio level, but no details about single asset classes are available.

From the realized performance of pension plans around the world we now turn to the psychological literature that offers various insights into the better-than-average-effect. The better-than-average-effect is one aspect in the field of overconfidence, which is a complex phenomenon with various facets. In the domain of financial markets Glaser and Weber [2007] differentiate among four different manifestations of overconfidence: miscalibration, better-than-average-effect, illusion of control and overoptimism. This paper only concentrates on the better-than-average-effect because it is

directly observable in a questionnaire, it is relevant in the domain of financial markets as Graham, Campbell and Huang [2006] outline and it serves as one explanation for the popularity of active management across Swiss pension plans.

The better-than-average-effect was first observed in psychology. Svenson [1981] notes that more than 80% of the participants in a survey believe they are above average with respect to their driving skills. Taylor and Brown [1988] demonstrate that people generally tend to be prone to the better-than-average-effect in many fields, as they believe their skills and abilities to be above average despite the absence of reliable information about their true level of skill compared to others. In a later paper (Taylor and Brown [1994]) they confirm their thesis and point out that being overly optimistic is usually increasing the well-being of an individual. So from a psychological standpoint being prone to the better-than-average can be seen as rather healthy and definitely non-pathological, but in the domain of financial markets it can lead to overoptimistically biased expectations about the own abilities and the own performance in the future. Camerer and Lovallo [1999] present evidence from an experimental market that roughly 70% of participants in their sample are prone to the better-than-average-effect in a market entry game when relying on the subjective perception of the own skills relative to the competitors in the game. They further report that the participants on average lose money due to their propensity to the better-than-average-effect and their overestimation of their own skills and so this results in financial decisions that lower their wealth.

In a theoretical model, De Long et al. [1991] show that overconfident investors can survive on financial markets but tend to take more risk and gain less expected utility than rational investors. Kyle and Wang [1997] show with their model that employing overconfident managers can be the best strategy, in the context of game theory, as both participants face a prisoner's dilemma. However the choice of an overconfident manager does not lead to an efficient outcome for both players. It is acknowledged that these models are applied directly to investors and not to decision makers who have the choice of delegating the portfolio management to an external asset manager. However, the point is to show that overconfident market participants can theoretically survive on financial markets but do not achieve the best risk-adjusted performance. Lakonishok, Shleifer and Vishny [1992] argue that overconfidence could lead to a preference for active management in a pension plan despite the fact that it might deliver returns below a market index. They point out that overconfidence about selection skills used to identify good active managers can explain the high percentage of active management within U.S. pension plans.

Empirically, Odean and Barber [2000] and Guiso and Jappelli [2005] demonstrate in samples of private investors that high trading volumes can reduce the performance results substantially due to increased trading costs. It seems fair to assume that the trading costs for Swiss pension plans are lower than for private investors, but higher trading volumes cause more transactions costs for pension plans as well.

There is no doubt that it is very difficult to beat the average performance on financial markets in the long run. Maybe some investors are not really aware of it because the better-than-average-effect biases their perceptions about the own skill level and the thoroughness of the competition. In the next sections it will be analyzed if this is also the case for Swiss pension plans.

SWISS PENSION FUNDS

A sample of Swiss pension plans is distinct from previous studies about private investors' or mutual funds' preferences and performances of active management because the participants in this sample bear not only responsibility for their own investments but also for the retirement savings of the employees in Switzerland. According to a study of the Swiss National Bank, for 2004 (see SNB [2006]) roughly half of all the peoples' wealth in Switzerland, around CHF 500 billion, is managed in the second pillar, that is, in the hands of Swiss pension plans.[1] It is in the interest of the working people in Switzerland that Swiss pension plans take wise and prudent financial decisions.

The pension funds under examination are segregated funded occupational pension schemes from the private and the public sector in Switzerland. Throughout their working life Swiss employees of companies or public institutions provide contributions to their pension funds which accumulate over time and then are used to fund retirement payments to pensioners. It is the goal of the pension funds to manage those inflows in a way to guarantee the payments to the pensioners without imposing high contributions to the current employees.

The law forces the board of trustees to take decisions about the strategic asset allocation of their pension plan and they cannot delegate this responsibility. However, they can rely on third-party knowledge in the elaboration of the strategic asset allocation. Members of the board of trustees are not necessarily investment professionals but rather people who represent stakeholders of the sponsor and have been elected into the board to lobby their voters' interest. The chosen asset allocation of every pension plan has to be in line with the Swiss regulatory framework.[2] The implementation of the chosen asset allocation in a particular pension plan is usually delegated to an investment committee which consists of delegates from the board of trustees and/or investment professionals. Most of the investment committees of Swiss pension plans consist of three to six members and meet between four and ten times per year. The main responsibility of such an investment committee is to appoint asset managers and to take tactical decisions within the guidelines defined by the board of trustees. Investment committees typically decide whether the day-to-day management is delegated to an external

asset manager or whether in-house managers are hired. They also have the option to delegate certain tactical decisions to in-house managers. So the decision about the role of active management in the implementation of the strategic asset allocation lies in the hands of either the investment committee members or the in-house managers.

To analyze explanations for the popularity of active management across Swiss pension plans a sample of investment committee members and internal managers seems to be appropriate. However, the important role played by consultants and the advice they give to pension fund professionals cannot be overlooked. Indeed, it would be inaccurate to suggest that all decisions are taken independently by the investment committees. According to a survey from Lusenti [2003] across 195 public and private Swiss pension plans, 38% use third-party advice in strategic decisions. Only 20% of the plans in the same sample indicate that they never work with external consultants. Nevertheless an investment committee ultimately bears the responsibility so it is their decision that matters.

DATA AND METHODS

In this paper the focus is on the implementation of a strategic asset allocation with active managers instead of indexers across Swiss pension plans. The availability of index instruments today gives the decision makers of Swiss pension plans a true choice between active managers and indexers when implementing the strategic asset allocation for traditional asset classes such as equities or bonds. The choice of a strategic asset allocation itself can in fact also be regarded as active management as the board of trustees of a pension plan has to take active decisions. However, for the strategic asset allocation of a Swiss pension plan there is no market index that could be used as a default portfolio, so there is no true choice between active managers and indexers. Therefore, the focus is only on the performance of Swiss pension plans within asset classes and not across total pension plan portfolios. Timing skills of pension plans will also be excluded from the analysis in this paper because meaningful data is not available.

To have enough observations and a true choice between active management and indexing, the paper only analyzes the performances in three asset classes. Those are domestic and international equities as well as CHF bonds. We then compare the pension plans' average and median performances in those asset classes with well-established market indices. For domestic equities the Swiss Performance Index (SPI) is applied as a benchmark, for international equities the MSCI World Index family is used, and for CHF bonds the Swiss Bond Index (SBI). Because Swiss pension plans are tax exempt, the loss due to taxes on dividends is in most of the cases marginal and so a total return index is a fair comparison. It might be the case that many pension plans in the sample do not use those indices as their benchmarks. However, the choice of a benchmark is also an active decision that investment committees or managers have to take, and the MSCI index family, the SPI and the SBI can be seen as reasonable and investable default solutions for those asset classes.

The paper relies on two different types of empirical surveys to collect data about the absolute and relative performance of Swiss pension plans within asset classes. First, on annual studies from Lusenti Partners (Lusenti [2007], Lusenti [2006], Lusenti [2005]), which are based on a sample of 130, 123 and 123 Swiss pension plans, respectively. These surveys present mean and median realized annual performances across different asset classes which can be compared to market index returns. Second, on the performance data from the ASIP Performance Comparison across 60–73 Swiss pension plans over different annual periods (ASIP [2000–2006]). The availability of data about returns of pension plan portfolios[3] in different asset classes in the ASIP survey allows for a comparison between each pension plan's performances within the same asset class relative to a market index. While the Lusenti surveys directly collect all their information from the pension plans, ASIP uses financial data from the global custodians of the participating pension plans. This guarantees for generally accepted calculation methods in the ASIP data and allows for a more homogenous set of performance data to compare. ASIP relies on returns gross of fees whereas Lusenti requests data net of fees. This has to be taken into account when interpreting the results.

This paper does not assume that one of those surveys is singularly representative for Swiss pension plans because both include only a small part all pension plans in Switzerland.[4] However, in terms of assets under management the samples from Lusenti include roughly CHF 200 billion in each year, while the samples in ASIP contain assets of roughly CHF 80 billion in 2000 to CHF 160 billion in 2006. This reflects one-third and one-quarter, respectively, of total asset under management in the second pillar of Switzerland. The ratio between participating pension plans and assets under management shows that rather large pension plans participate in the ASIP and the Lusenti survey so a size bias cannot be ruled out. The results of this paper are on the conservative side as larger pension plans tend to index more assets than smaller funds, according to Lusenti [2003]. So this paper tends to underestimates the popularity of active management across Swiss pension plans. There is a self selection bias in the samples because there is no obligation to participate in either the Lusenti or the ASIP surveys. It is plausible that only successful and above average pension plans are incentivized to participate in those surveys. The incentive to participate in the ASIP survey might be additionally limited by the fact that a fee is charged for the participation. In light of this bias, the results with respect to historical success with active management rather overestimate the success of the overall pension plan industry in Switzerland. There is a certain overlap in the samples because some pension plans participate in the

Lusenti as well as in the ASIP survey but is not quantifiable because data about the participants in the Lusenti study is not public. An analysis between the performance of defined contribution and defined benefit plans is not valid in this paper due to the low number of defined contribution plans in the sample, but in line with Frauenlob [1998] no indications for differences appeared in the available data.

In order to analyze the better-than-average-effect across decision-makers of Swiss pension plans the author constructed a specific questionnaire that has been distributed to large sample of investment committee members and managers at Swiss pension plans. In total 584 questionnaires have been distributed and 132 have been returned. This corresponds to a response rate of 22.6%. A majority of the participants' pension plans are represented in either the Lusenti or the ASIP survey. 24 questionnaires contained incomplete information and therefore have been excluded from the analysis. As a result the professional sample consists of 108 participants (56 investment committee members, 52 managers) who represent a total of 39 Swiss pension plans (22 Defined Benefit, 8 Defined Contribution, 2 Hybrids and 7 unspecified).

To measure the better-than-average-effect the participants were given two different tasks in a questionnaire. In the first task they were asked about their expectations with respect to their own pension plans' future success relative to the other participants in the sample. The questions in that part were about i) the chances of their pension plan to find above average active managers in the future, ii) the likelihood of their pension plan to achieve an above average risk-adjusted return in the future, and iii) the chances their internal and external managers would outperform the other active managers of Swiss pension plans in the sample in the future. An exact wording of the questions is provided in the Appendix. To answer those questions the participants had to tick a box on a Likert scale from 1 (clearly below average) to 7 (clearly above average). The possibility of 4 (average) is included as many participants probably would choose this option. The participants were well informed about their competitors in this sample as this was explicitly stated in the questionnaire. In the second part the participants had to forecast the returns of different asset classes for calendar year 2006, and they had to provide a self evaluation of the accuracy of their own forecasts versus those of the other participants.

RESULTS

Historical Performance of Swiss Pension Plans

In the annual surveys from Lusenti for 2004–2006 and ASIP from 2000–2006, there is no indication of outperformance versus market indices across Swiss pension plans. Table 1 provides an overview of the median performances of Swiss pension plans in different asset classes according to those two surveys. The median was favored over the mean to mitigate outlier effects. The first three rows show the median annual returns according to the Lusenti and the ASIP survey as well as the return of the Swiss Bond Index (SBI) domestic. Rows four to six and seven to ten contain the median annual returns for Swiss and international equities of the pension plans and for the market indices. Except for the median returns in the ASIP sample for CHF bonds in 2000 and 2003, Swiss equities in 2001 and foreign equities in 2000 and 2006, Swiss pension plans have never outperformed the corresponding market index neither net of fees (Lusenti) nor gross of fees (ASIP). In most of the years the median from ASIP underperforms the annual return of the market index by roughly 0.5–1.5%.

An analysis of all portfolios from Swiss pension plans that participate in the ASIP survey confirms that most portfolios in the asset classes Swiss equities, world equities and CHF bonds do not outperform a market index gross of fees. Table 2 shows in columns one, three and five the rank of a market index with respect to the return for each asset class within the universe of portfolios across all pension plans in the ASIP survey over different time periods. For example the SPI's return over the last 36 months was ranked 14 within a universe of 46 portfolios in the asset class Swiss equities. So 32 of all the portfolios delivered a lower return than the SPI gross of fees and 13 had a higher return. The returns of indices in all analyzed asset classes are always in the better half of the ASIP pension plan universe except for CHF bonds in the period from June 2005 to June 2006.

One might argue that the pension plans in the samples from ASIP manage the asset classes with a lower volatility than the market indices and therefore achieve better risk-adjusted returns. The columns two, four and six of Table 2 list the rank of the market indices' Sharpe Ratios for each asset class for the last 36 and 60 months. Those ranks are always in the better half of the overall universe in the sample so it is not the case that pension plans delivered better risk-adjusted returns compared to market indices in these asset classes.[5]

Tables 1 and 2 do not differentiate between active portfolios and indexed portfolios so it might be the case that many indexed portfolios slightly underperform the SPI and therefore median return is below the index return. Nonetheless this argument is not valid because of two different reasons. First, a report by Lusenti [2003] indicates that most of the Swiss pension plan assets in various different asset classes are managed actively. Out of 110 plans that answered that question, 65 report to index between 0% and 10% and further 18 plans index between 10% and 25% of their total assets. On the other hand, only 14 plans report to index at least 50% of their total assets. Lusenti [2003] further indicates that the percentage of indexed assets increases with the size of pension plans. As this paper deals with samples of large pension plans it rather underestimates the popularity of active management across Swiss pension plans. For a comparison Ennis [1997] reports that around 35% of the assets of U.S. pension

TABLE 1
Past Performance of Swiss Pension Plans.

	Median annual returns from Lusenti and ASIP surveys and market indices						
Year	2000	2001	2002	2003	2004	2005	2006
Sample size for Lusenti/ASIP	na/50	na/63	na/65	na/70	123*/71	123**/73	130***/72
AuM for Lusenti/ASIP in bn CHF	na/80	na/80	na/75	na/100	215/145	190/145	212/161
CHF bonds							
Lusenti median	na	na	na	na	3.4%	2.7%	0.3%
ASIP median	3.7%	3.9%	9.9%	1.6%	3.6%	2.7%	0.0%
Swiss Bond Index (SBI) TR domestic″	3.4%	4.4%	10.8%	1.5%	4.6%	3.6%	−0.3%
Swiss equities							
Lusenti median	na	na	na	na	5.9%	34.0%	20.0%
ASIP median	11.4%	−21.5%	−26.9%	21.7%	6.3%	35.2%	20.1%
Swiss Performance Index (SPI) TR	11.9%	−22.0%	−25.9%	22.1%	6.9%	35.6%	20.7%
World equities							
Lusenti median	na	na	na	na	5.5%	27.0%	13.0%
ASIP median	−11.1%	−16.3%	−33.6%	19.1%	5.4%	27.0%	11.2%
MSCI World Index in CHF TR	−11.9%	−14.5%	−33.0%	19.6%	6.0%	27.5%	11.8%
MSCI World Index ex Switzerland in CHF TR	−12.4%	−14.3%	−33.3%	19.6%	6.0%	27.3%	11.5%

For each asset class the top rows show the sample median returns of the Lusenti Partners survey and the second rows the sample median returns for the ASIP Performance Comparison. The last rows each present the returns of market indices for the asset classes. The last 2 rows in the table present the returns of the MSCI World Index in CHF inclusive Switzerland and exclusive Switzerland. The reason to show both indices is that the treatment of Swiss equities in a world equity index is different across Swiss pension plans and also across the surveys from Lusenti Partners and ASIP. Some plans include Swiss equities within the universe of world equities and others do not.

″The SBI domestic index covers only CHF bonds from Swiss companies whereas the SBI general reflects the whole universe of CHF denominated bonds. Most of the Swiss pension plans use the SBI domestic as a benchmark.

*Only 123 out of 174 Swiss pension plans in the sample provide an answer to this question.

**Only 123 out of 162 Swiss pension plans in the sample provided an answer to this question.

***Only 130 out of 172 Swiss pension plans in the sample provided an answer to this question.

plans are indexed and that the trend is increasing. Lusenti [2003] further reports that there is no significant difference between Swiss and international investments with respect to the popularity of active management across Swiss pension plans.

Figure 1 contains the second reason and shows that active management in equities—but not in CHF bonds—is dominant in the sample of pension plans whose decision makers also completed the author's questionnaire about the better-than-average-effect. As can be seen in Figure 1 the majority of all equity portfolios are managed actively in each year. A portfolio is defined as actively-managed if its tracking error was above 0.3% per annum for Swiss equities and CHF bonds and above 0.5% per annum for international equities.[6] With this simple criterion one cannot differentiate between true indexers and active managers who did not spend their active risk budget. Those tracking error levels seem to be a simple and conservative approximation. As benchmarks to calculate the relative Alpha and the tracking error we used market indices. For Swiss equities the Swiss Performance

TABLE 2
Rank of Market Indices in the Pension Plan Universe.

Time period	Return Rank of Swiss Performance Index (SPI)	Sharpe Ratio Rank of Swiss Performance Index (SPI)	Return Rank of MSC1 World Index	Sharpe Ratio Rank of MSCl World Index	Return Rank of Swiss Bond Index (SBI) domestic	Sharp Ratio Rank of Swiss Bond Index (SBI) domestic
June 2005 to June 2006	12/50	na	24/48	na	37/49	na
June 2004 to June 2006	10/50	na	23/46	na	7/48	na
June 2003 to June 2006	14/46	19/41	18/44	16/41	10/46	17/44
June 2001 to June 2006	15/39	9/28	13/35	11/32	5/39	7/39

Table 2 lists the ranks of market indices with respect to returns and Sharpe Ratios for 3 different asset classes, Swiss and world equities and CHF bonds in the sample of the ASIP Performance Comparison between different time periods. Each row shows the rank of an index for a past time period and the number of pension plan portfolios in the sample. To compute the rank total return indices are used. For Swiss equities the Swiss Performance Index (SPI), for world equities the MSCI World Index and for CHF bonds the Swiss Bond Index (SBI) domestic. The risk free rate is the 12 month money market return according to the Swiss National Bank (SNB) for the period from June 30th, 2003 (June 2001) to June 30th, 2006 and is 0.78% (1.47%) annualized.

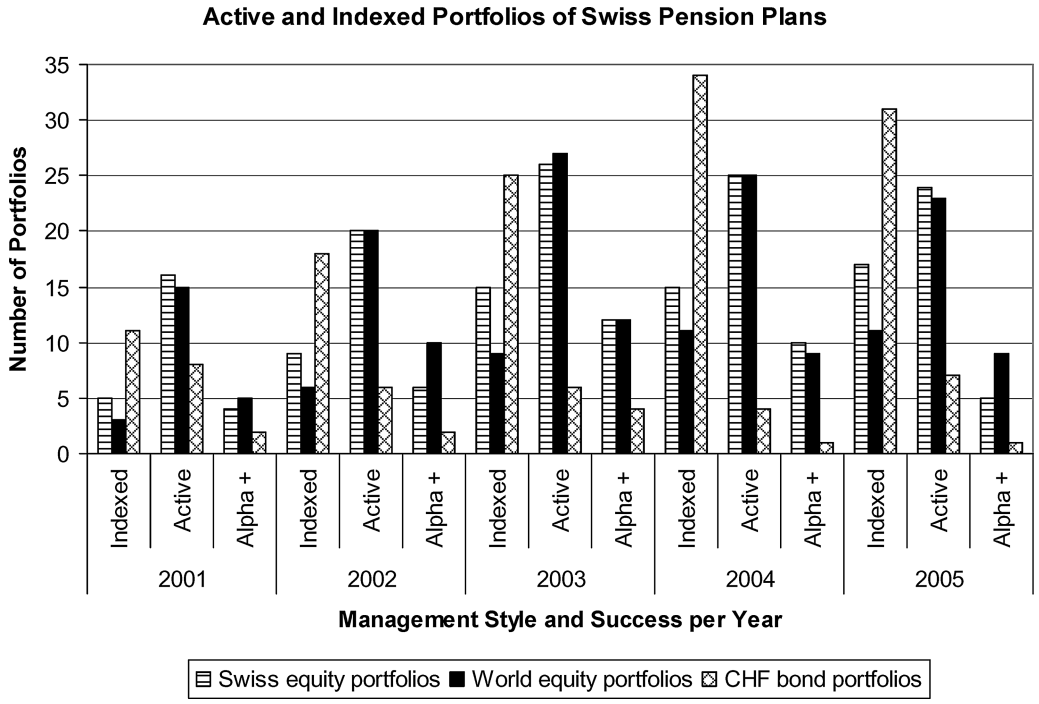

FIGURE 1 Active and indexed portfolios of Swiss pension plans.
Figure 1 shows the number of indexed and active portfolios of all the pension plans that participated in the author's questionnaire for each year from 2000 to 2005. Active portfolios are defined as portfolios with a tracking error above 0.3 for Swiss equities and CHF bonds and with a tracking error above 0.5 for world equities. The success rate of the active mandates called "Alpha" shows how many of all active portfolios performed better than a corresponding market index. As benchmarks to calculate the relative Alpha and the tracking error we used market indices. For Swiss equities the Swiss Performance Index (SPI), for World equities the MSCI World Index in CHF and for CHF bonds the Swiss Bond Index (SBI).

Index (SPI), for World equities the MSCI World Index in CHF and for CHF bonds the Swiss Bond Index (SBI). We note that the percentage of indexed portfolios has steadily grown between 2001 and 2005, but active management in equities is still much more popular. For CHF bonds the picture looks different. Figure 1 shows that the pension plans in this sample apply passive management, or at least a type of management that resulted in a low tracking error to the SBI.

Table 3 supports the other results as it shows that most of the actively managed equity portfolios from pension plans that completed the better-than-average-questionnaire have not beaten the annual performance of an equity market index in the years 2001 to 2005. The columns labeled "Alpha" contain the number of portfolios with a return above the market index in a given year. For equities the success rate, that is, the number of portfolios that have higher annual returns than the market index, varies but is never above 50% except. Those results indicate that the Swiss pension plans of the decision makers who completed the better-than-average-questionnaire cannot outperform market indices on average and therefore achieve similar performances to the Lusenti and the ASIP surveys.

We can summarize this section by saying that the implementation of the strategic asset allocation with active management is much more popular than indexing across Swiss pension plans. However, the evidence about the median performance of Swiss pension plans with domestic and international equities does not support the dominance of active management. The median performance across two well-established Swiss pension plan surveys is below market indices' returns, and more often than not active portfolios fail to beat the performance of a broad market index even gross of fees.

Better-Than-Average-Effect

This paper argues that a biased view on the own skill level relative to other investors could lead to a heavy reliance on active management. It is now analyzed if decision makers of Swiss pension plans are really prone to such a better-than-average-effect.

To report the susceptibility to the better-than-average-effect we must first have a look at the participants' expectations concerning their current manager's chances for future success, their own manager selection skills and their pension plan's chances to outperform the other participants in the sample. In one part of the questionnaire the participants had to tick a corresponding box on a Likert scale between 1 (clearly below average) to 7 (clearly above average) including 4 (average) to express their opinion. Each column in Table 4

TABLE 3
Perceived Chances for Active Management in the Participants' Own Pension Plan.

	Own pension plan's chances to find above average active managers	Current internal active managers' chances to outperform the other internal managers the sample	Current external active managers' chances to outperform the other external managers the sample	Own pension plan's chances to outperform the other pension plans in the sample
Valid	104	74	91	105
Missing	4	34	17	3
Mean	4.17*	4.55***	4.37***	4.57***
T value	1.69	5.74	5.26	6.53
Median	4	5	4	5
Std. Deviation	1.05	0.83	0.68	0.90
Percentages of answers				
% clearly below average	1.92	0.00	0.00	0.95
% below average	3.85	1.35	1.35	0.00
% slightly below average	14.42	5.41	5.41	4.76
% average	43.27	39.19	39.19	43.81
% slightly above average	28.85	47.30	47.30	39.05
% above average	6.73	4.05	4.05	8.57
% clearly above average	0.96	2.70	2.70	2.86

Each column lists the summary statistics of the participants' answers from the questionnaire. The participants had to tick a box with values from 1 (clearly below average) to 7 (clearly above average) to indicate how they perceive the chances of their own pension plan compared to the other participants' pension plans in the sample. A value of 4 indicates average. Rows 8 to 14 list the percentage of participants who ticked the different answering boxes. Missing values occur either because a participant did not answer the question or because a participants' pension plan does not work with internal or external managers. The latter case occurs much more often.

*10% significance level.

**5% significance level.

***1% significance level.

contains the participants' mean, the t value, the median and the standard deviation (rows three to six) for each one of those questions. The sample mean is above 4 (average) for all questions and one sample t tests reveal significant differences between the sample means and the answering option "average" at the 1% level for all questions except the outlook to find above average active managers in the future, which is only significant at the 10% level. This is evidence that the sample is on average prone to the better-than-average-effect in the domain of judging their own and their managers' abilities on financial markets. Rows eight to fourteen in Table 3 contain the percentage of chosen answers by the participants. The answering options "average" and "slightly above average" are chosen more often than all three options below average and this is again evidence that the decision makers in our sample are on average susceptible to the better-than-average-effect. More than 93% of the participants believe to have at least average internal and external managers and to perform at least on an average level compared to the other pension plans in the sample. The first two rows show the sample size and the number of missing participants. A participant's answer is missing either because she refused to answer or because he does not apply internal or external management. The latter case applies in most cases.

Correlations between the answers of the decision makers of Swiss pension plans across those four questions provide information about the generality of the better-than-average-effect across the participants. Spearman rank correlations are applied because the assumption that the participants' answers are close to normally distributed cannot be made. Higher correlations indicate that a participant expresses optimistic views across all four questions. The Spearman rank correlations indicate a high level of general proneness to the better-than-average-effect because all the correlations are significant at the 1% level and range from 0.306 to 0.541.

In a second step we analyze if the participants in this sample are also prone to the better-than-average-effect when forecasting returns of different asset classes themselves. The six columns in Table 4 each represent an asset class for which the participants had to judge the accuracy of their own return forecast relative to the other participants in the survey. The same Likert scale like in Table 3 was applied. The means for all asset classes in Table 4 are above 4 but one sample t tests provide evidence that the differences are not significantly different from 4 (row four). This is evidence that the participants are not significantly prone to the better-than-average-effect in the task of forecasting returns themselves. The only exceptions are equities and the own pension plan returns as the participants judge their own forecasts to be significantly above average. To be able to forecast the returns of the own pension plan above average looks reasonable as the participants probably have better knowledge about the potential return of the own pension plan. Unsurprisingly the option "average" was by far the most chosen one in

TABLE 4
Better-Than-Average-Effect in the Task of Forecasting Returns.

Asset Class	Swiss Equities in General	Pension Plan Swiss Equities	CHF Bonds in General	Pension Plan CHF Bonds	Own Pension Plan	Average Pension Plan
Valid	90	86	88	84	90	86
Missing	18	22	20	24	18	22
Mean	4.12*	4.10	4.08	4.10	4.26**	4.07
T value	1.69	1.38	1.12	1.18	3.20	0.90
Median	4.00	4.00	4.00	4.00	4.00	4.00
Standard deviation	0.68	0.70	0.66	0.74	0.76	0.72
Percentages of answers						
% clearly below average	0.00	0.00	0.00	0.00	0.00	0.00
% below average	0.00	1.16	1.14	1.19	0.00	1.16
% rather below average	13.33	12.79	12.50	14.29	11.11	13.95
% average	65.56	63.95	65.91	63.10	60.00	66.28
% rather above average	16.67	18.60	18.18	16.67	21.11	13.95
% above average	4.44	3.49	2.27	4.76	7.78	4.65
% clearly above average	0.00	0.00	0.00	0.00	0.00	0.00

Each column lists the summary statistics of the participants' answers from the questionnaire. The participants had to tick a box with values from 1 (clearly below average) to 7 (clearly above average) to indicate how they judge the accuracy of their own forecasts in each asset class compared to the other participants in the sample. A value of 4 indicates average. Rows 8 to 14 list the percentage of participants who ticked the different answering boxes. Missing values occur because a participant did not answer the question.

*10% significance level.

**5% significance level.

***1% significance level.

the questionnaire. The option "slightly above average" is more popular than the option "rather below average" but the differences are much smaller in the forecasting task than in the tasks about a pension plans chances for future success.

This section can be concluded by saying that decision-makers of Swiss pension plans are significantly prone to the better-than-average-effect when evaluating the chances of future success for their current managers and their own pension plans. But they do not believe that they personally can forecast future returns of different asset classes significantly better than their colleagues from other Swiss pension plans.

Discussion and Conclusion

Some Swiss pension plans delivered extraordinary good performances in equities over the last couple of years, but a majority of the Swiss pension plans that participate voluntarily in well-established performance surveys delivered equity performances below market indices on an absolute as well as on a risk-adjusted basis even gross of fees. This does not imply that active management cannot add value for Swiss pension plans' equity portfolios, but it shows how difficult the selection and the maintenance of successful active managers are. Many asset managers point out that past performance is no indication for future performance so it cannot be ruled out that the managers in this sample will outperform broad market indices in the future. In order to meet expectations future results must be much better than historical results.

To put this evidence into perspective we have to bear in mind that we cannot directly link a participant's answers in the questionnaire to the investments of his/her pension plan as we do not know the extent of the influence of one decision maker on the whole pension plan investment. In other words, just because one decision maker expresses biased expectations does not imply that his pension plan will fail with active management. Nevertheless it is puzzling that most of the decision makers in the sample are highly convinced about the abilities of their current managers, their own manager selection skills and the chances for future success of their pension plan despite the observable track record. It is even more puzzling when you consider that a comparison with the average is very easy on financial markets, as market indices are freely available and often discussed in the media. So where is this gap between biased expectations and realized performances in equities coming from? As this paper suggest, the better-than-average-effect is one explanation. A few arguments are now discussed in the context of Swiss pension plans.

At first glance one might argue that the pension plans in this sample might not be aware of their disappointing relative performance versus broad market indices. However this argument is weak because the pension plans in this sample are widely regarded as leading pension plans in Switzerland and they participate voluntarily in popular surveys of Swiss pension plans. They receive the results of the Lusenti and the ASIP surveys automatically as they are participants of those studies so it seems unlikely that they never look that the results of those surveys. So the assumption that the decision makers of Swiss pension plans are aware of poor relative median performance of Swiss pension plans versus market indices seems safe. Of course, for all pension plans

who have not yet implemented a proper measurement of their performances in different asset classes relative to appropriate market indices the recommendation clearly is to start sooner rather than later.

Another simple explanation could be that if the decision makers of Swiss pension plans kept on believing to have above average managers and above average selections skills they might still be convinced to outperform in the long run despite the disappointing results so far. Indeed it takes much time and data to be able to correctly differentiate between a manager's level of skill and pure luck, as Waring and Siegel [2003] explain. If that was the case the participants in our sample will not put a lot of weight on their recent performance but more on their perception about their chances of future performance. Further research needs to be done in order to understand how much an individual weighs knowledge from the past versus hope for the future.

Camerer and Lovallo [1999] offer the so called reference-group-neglect as an explanation for why people could seem to be prone to the better-than-average-effect. If the participants in a sample do not pay attention to the definition of the peer group—in this paper the Swiss pension plans that report to the ASIP survey—they might compare themselves with an inappropriate peer group, in our case maybe with all pension plans in Switzerland. Because of the self-selecting nature of the ASIP survey and the required use of a global custodian for the data provision it is possible that the average performance of the pension plans in the ASIP survey is above the unobservable average of all pension plans in Switzerland. So the benchmark to beat in our sample might be higher than a benchmark that consists of all Swiss pension plans and the reference-group-neglect offers an explanation for the high proportion of participants that demonstrate the better-than-average-effect.

Furthermore it might be the case that some decision makers in our sample are more concerned with being above average in the Swiss pension plan universe than with the relative performance versus a market index (this is the case for UK pension plans according to a study by Blake, Lehman and Timmermann [2002]). However this argument is no excuse for the poor relative performance versus market indices because the goal of active management in traditional asset classes like equities and bonds is usually to outperform market indices and not pension plan peer groups.

Lakonishok, Shleifer and Vishny [1992] present other incentives for pension plan managers to apply active management despite a lack of success in the past. One reason could be job security. Active management requires decision makers to select active managers. This is arguably a more complex and interesting process when compared to the selection of indexers, which tends to prioritize the factor price. This study suggests that some decision makers may fear that their ability to add value is diluted when too high a proportion of their plan's assets are indexed. Decision makers have strong incentives to demonstrate confidence about their active managers and their own manager selection skills going forward, and to ignore disappointing performance relative to market indices in the past to defend their employment.

Another reason could be that the performance of an active manager might not be the whole story behind an appointment to run portfolios for a pension plan. Lakonishok, Shleifer and Vishny [1992] call such a phenomenon "schmoozing." It describes the colorful manner that asset managers sometimes explain their stock decisions, hold hands with their clients and explain their absolute and relative performance ex post. With successful "schmoozing," active managers might be able to convince decision makers at Swiss pension plans about their skills in spite of an unsuccessful track record. As outlined before, investment committees of Swiss pension plans do not only consist of investment professionals but also of delegates of the board of trustees who might be less familiar with daily portfolio management. And it seems plausible that an active manager with excellent schmoozing abilities is in a good position to be retained by a pension plan despite a relative underperformance versus market indices.

In line with this thinking another incentive for Swiss pension plans not to replace unsuccessful active managers can be seen in the linkage of other corporate services some captive active managers provide. Large asset managers typically affiliated to banking groups not only offer the sponsor of a pension plan active management services for the pension plan's assets but also services in the field of credit management, refinancing, mortgages, financial consulting, currency management and many other services to the sponsoring businesses. The decision makers at the sponsor organization have incentives to retain active managers for the pension fund which also provide such other valuable services to the company. Especially in a defined contribution scheme where the risk of the retirement payments are borne by the employees a company can pay for many services via management fees for pension plan assets and take those costs off the current account statements of the company. To express a strong belief in the future success of active managers might be a convenient way to hide the true motivation for keeping active managers with a disappointing relative performance. Further research is needed to analyze the incentives on a personal level and the effects of the regulatory framework with respect to the separation of the pension plan and the sponsor group.

In the case a pension plan employs in-house active managers the problem has also a personal aspect. It is likely to be much easier to hire and fire external active asset managers than in-house managers because the personal relationship with external people is usually less strong than with in-house employees. This might be a reason why the participants in our sample indicate that they are confident about the skill of their current internal active managers relative to the other pension plans' managers. Probably those answers reflect the view that there are no opportunities for a replacement and the current setup is still perceived as attractive despite the poor track record. Pretending to feel confident with a mediocre

in-house active manager could probably be more convenient for an investment committee member than firing this colleague. Such qualitative arguments appear plausible at first glance but require more research to analyze the interdependent relationships in more depth and to prove or reject these hypotheses.

A different type of incentive for active management is offered by Odean and Barber [2001]. It might be the case that active management is perceived as more entertaining than indexing by the decisionmakers of Swiss pension plans. As a proxy to measure the degree of entertainment it is also analysed whether there are any differences in the answering patterns between those participants who have a private trading account and those who do not. An independent t test shows that the management of an own account has neither a significant influence on their proneness to the better-than-average-effect nor on the formulation of return forecasts. This is evidence that the degree being entertained by actively managing money is not related to each other in this sample.

After the discussion of potential arguments that explain the occurrence of a better-than-average-effect in the sample we finally turn to a recommendation about how to deal with it. The issue is theoretically addressed in a model by Thorley [1999]. He compares the competition to generate an outperformance on financial markets to a basketball free-throw shooting contest. Every participant can choose between throwing free throws himself or not throwing and just getting the average score. The throwing corresponds to active management and the latter to indexing. It only makes sense to shoot the free throws if a participant believes to be an above average free throw shooter compared to all the other contestants in the game. If only children are playing on the court shooting free throws, as an adult it might be a good opportunity to beat the average score. By contrast when on the court with the basketball dream team from the United States, not shooting oneself but taking the average score is probably a more successful strategy. So the decision about implementing the strategic asset allocation with active managers should depend on how the overall level of competition and the own abilities compared to the competitors are perceived. The better-than-average-effect might bias the perception of personal abilities and skills relative to the other competitors. The historical performance of Swiss pension plans supports the view that not every Swiss pension plan is aware of its strengths and weaknesses relative to the other competitors on financial markets. So the model recommends to analyze in which asset classes the pension plan should have a true advantage versus most of the participants in an asset class and only apply active management in those asset classes.

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NOTES

1. In September 2006 estimates for the wealth in Switzerland's second pillar are at CHF 650 Bn Swisscanto [2006].
2. Verordnung über die berufliche Alters-, Hinterlassenen- und Invalidenvorsorge (BVV 2), articles 50 to 59.
3. A pension plan portfolio is defined as a single mandate to an in-house or external asset manager within a certain asset class or a consolidation of single mandates of a pension plan within an asset class. There is no further data available about the performances of each single mandate that is included in the consolidation of mandates of a pension plan.
4. In 2004 BFS [2004] counted 2935 pension plans in Switzerland. There is a decreasing trend in the last 10 years.
5. The risk free rate is the 12 month money market return according to the Swiss National Bank (SNB) for the period from June 30, 2003 (June 2001) to June 30h, 2006, and is 0.78% (1.47%) annualized.
6. For Swiss equities it is easier to replicate the market index (SPI) than for world equities because the universe of shares is much smaller. That is why different levels of tracking errors for Swiss and world equities are used to define active portfolios. The relatively homogenous universe of CHF bonds in the SBI domestic explains the low tracking error limit to define active portfolios.

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APPENDIX

The questionnaires provided in this section are translated from the German original questionnaires.

The questions about the own ability to forecast returns in the year 2006 for different asset classes relative to the other decision-makers of Swiss pension plans in this sample have been worded the following way: "Please evaluate the accuracy of your personal forecast relative to the forecasts of the other decision-makers of Swiss pension plans in this sample. Please tick the corresponding box."

Clearly below Average	Below Average	Rather below Average	Average	Rather above Average	Above Average	Clearly above Average
O	O	O	O	O	O	O

For the questions about the future chances of internal and external managers as well as the own pension plan the same Likert scale form 1 to 7 has been used. The questions have been worded the following way:

"How do you evaluate your pension plan's chances to find (internal or external) active managers who will perform above average in the future?"

"How do you evaluate your pension plan's chances to outperform the average performance of the other Swiss pension plans who participated in this survey on a risk-adjusted basis?"

"How do you evaluate your internal (external) managers' chances to outperform the internal (external) managers of the other Swiss pension plans who participated in this survey?"