TOPICS OF





A Survey of Manager Hires and Fires Among SACRS Counties

August 2015



SCOTT WHALEN, CFA Executive Vice President, Senior Consultant



HERBERT J. NISHII Senior Consulting Associate

Executive Summary

The purpose of undertaking a study around the hiring and firing of investment managers is to discover if any common trends exist, which once identified, may lead to improved decision making. The inspiration of this study comes from a 2008 paper published by Amit Goyal and Sunil Wahal titled, "The Selection and Termination of Investment Management Firms by Plan Sponsors", in conjunction with frequent client inquiries regarding whether we track the results of our clients' manager termination decisions. In their research, Goyal and Wahal gather institutional plan sponsor data on manager hires and fires over a ten year period. They discover that on average, "plan sponsors hire investment managers after large positive excess returns but this return chasing behavior does not deliver positive excess returns thereafter." We wondered if SACRS¹ Plans' experience would be any different.

To conduct the study, surveys were sent out to the 20 members of the State Association of County Retirement Systems (SACRS) requesting basic data on investment manager hires and fires. Performance data was also gathered from investment manager databases to augment survey data, which included post-termination and pre-hire performance. This data was then normalized into measurable time frames and excess returns were calculated against assigned benchmarks.

The first analysis compares relative manager performance before they were hired to performance after being hired. The results were in-line with that of Goyal and Wahal, i.e., on average managers demonstrated excess returns

prior to being hired, but performance slipped after being retained.

The second analysis focuses on terminated managers. In this section, relative manager performance leading up to termination was compared against performance following termination. Underperformance persisted in the periods leading up to termination. However, the surveyed group of terminated mangers demonstrated a general trend of rebounding and producing positive excess returns after being fired.

Finally, the last analysis in the study aims to answer the question, "Do terminated managers outperform their replacements?" In order to satisfy this query, a number of filters and parameters were imposed on the data set to ensure terminated managers were being compared against their replacements. While the results of this analysis aren't as compelling as that of the previous two analyses, the data does support the idea that on average terminated managers outperform their replacements, at least within the 5-year scope of this study.

Introduction

The main goal of this study was to discover if there were any observable trends around the hiring and firing of investment managers, specifically among SACRS counties. The inspiration behind this research initiative comes from a 2008 paper published by Amit Goyal and Sunil Wahal titled, "The Selection and Termination of Investment Management Firms by Plan Sponsors." In their research, the authors study institutional plan sponsor data gathered from a variety of sources and stretches over a 10 year time horizon. This produced a database of 8,755 hiring decisions and 869 firing decisions by 3,400 plan sponsors³.

GOYAL & WAHAL, TABLE IV (EXCERPTS): INVESTMENT MANAGER RETURNS BEFORE AND AFTER HIRING²

Cumulative Excess Returns

	Pre-hiring Period (Years)			Post-hiring Period (Years)			
	-3 to 0	-2 to 0	-1 to 0	0 to 1	0 to 2	0 to 3	
Full Sample	10.39	7.04	3.42	0.42	1.12	1.88	
Domestic Equity	12.54	8.72	4.25	-0.22	-0.07	0.77	
International Equity	17.11	11.83	5.71	3.32	7.09	9.00	
Fixed Income	3.72	2.32	1.16	0.30	0.65	0.80	

Among the authors' many observations, there are a few data points worth highlighting. First is their analysis of investment manager returns before and after hiring. An excerpt of Table IV from the paper is provided above. As a general observation, manager excess returns pre-hire were favorable compared to returns observed post-hire demonstrating the lack of persisting returns.

The second highlight comes from Goyal and Wahal's Table IX which shows manager performance before and after being fired. An excerpt of this table is provided following this text. Generally speaking, excess returns of the data set prior to termination were mostly negative. The International Equity group's results don't really fit well with that generalization, but performance data for the Full Sample, Domestic Equity, and Fixed Income groups are generally negative leading up to the termination event. However, during the periods following termination, negative excess returns did not persist and performance was favorable compared to pre-firing results.

TOPICS OF INTEREST 3Q15

2

GOYAL & WAHAL, TABLE IX (EXCERPTS): INVESTMENT MANAGER RETURNS BEFORE AND AFTER FIRING⁴
Cumulative Excess Returns

	Pre-firing Period (Years)			Post-firing Period (Years)			
	-3 to 0	-2 to 0	-1 to 0	0 to 1	0 to 2	0 to 3	
Full Sample	2.27	-2.06	-0.74	0.98	1.47	3.30	
Domestic Equity	2.63	-3.28	-1.26	0.83	1.15	3.44	
International Equity	9.15	3.72	2.42	1.52	2.66	4.10	
Fixed Income	-1.54	-1.47	-0.86	0.91	1.51	2.19	

An excerpt from Goyal & Wahal's Table X is the third and final highlight for review which presents round-trip excess returns. An overly simplistic definition of a round-trip would be to follow a terminated manager's performance in the periods leading up to termination and also after. For each termination, a hired manager is linked to that particular decision and performance of the hired manager would be compared over the same periods. As mentioned, this an overly simplistic definition of Goyal and Wahal's documentation of a round-trip hiring/firing decision. In many cases, there are a wide array of permutations of hires and fires that range from simple to complex. One firing decision could be linked to several hiring decisions and vice versa.

In the table below, the authors analyze round-trip data by taking the difference in excess performance between the hired firms and fired firms. In the periods leading up to the firing/hiring event, returns of hired firms strongly outpaced those of the fired firms. However, during the post-event periods, the fired firms actually outperformed those that were hired.

GOYAL & WAHAL, TABLE X (EXCERPTS): ROUNG-TRIP EXCESS RETURNS FOR INVESTMENT MANAGERS⁵
Cumulative Excess Returns

	Pre-event Period (Years)			Post-event Period (Years)				
	-3 to 0	-2 to 0	-1 to 0	0 to 1	0 to 2	0 to 3		
Fired Firms	2.03	-1.57	-0.11	1.83	3.14	4.26		
Hired Firms	11.55	7.55	4.46	1.34	2.26	3.23		
Return Differential (hired – fired)	9.52	9.12	4.56	-0.48	-0.88	-1.03		

All this considered, Goyal and Wahal neatly summarized that "plan sponsors hire investment managers after large positive excess returns but this return chasing behavior does not deliver positive excess returns thereafter." We have endeavored to discover if this trend extends to the SACRS counties.

Initiation of the Study: Distributing Surveys and Collecting Responses

In this study, the focus group consisted of the 20 SACRS member counties. Surveys were sent to the systems requesting several basic pieces of information for the study, which are listed below:

- 1. Terminated manager name
- 2. Terminated strategy name
- 3. Terminated strategy benchmark

- 4. Ticker (if applicable)
- 5. Termination date
- 6. Replacement manager name
- 7. Replacement strategy name
- 8. Replacement strategy benchmark
- 9. Ticker
- 10. Replacement hire date
- 11. Return stream of terminated manager
- 12. Return stream of the hired manager

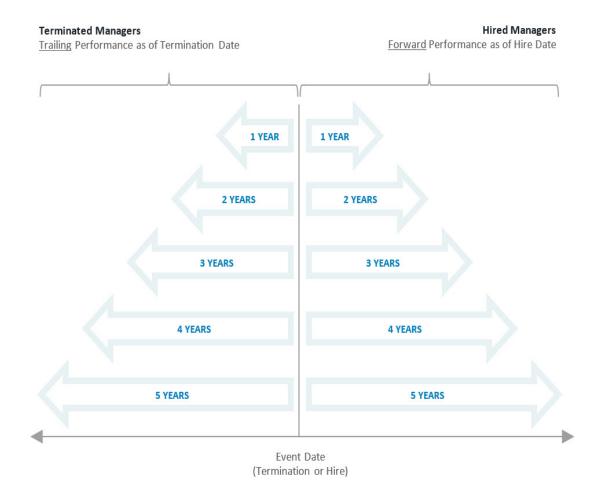
Of the 20 SACRS member counties, 12 counties responded to the survey providing 78 terminated manager observations and 82 hired manager observations.

Actual return streams of the terminated managers and hired managers were requested for this study. If a manager was terminated for performance reasons, then it would have been a result of the actual performance experienced by the plan. Similarly, it was also important to gather each strategy's assigned benchmark in the survey. By having the assigned benchmark, the study should capture the actual data point used in the hiring and firing decision. While we recognize managers are also terminated for reasons other than performance, we excluded this consideration from the study and believe it does not negate the findings.

Normalizing the Data

As institutional investors know, managers are hired for different mandates, at different times, and held over different time horizons. In order to place the least amount of burden on the survey respondents and to promote participation, the data was requested in the most basic form possible where respondents submitted return streams in either a monthly or quarterly format. Consequently, this data would need to be normalized to make meaningful comparisons.

The first step in the normalization process requires converting the monthly or quarterly return streams into conventional return periods and then annualizing them. Typical performance reports measure returns on a trailing basis and a conventional period would be a 1, 3, or 5 year trailing return as of a period end date. In the case of terminated managers, the termination date is used as the period end date where performance is measured on a trailing basis.



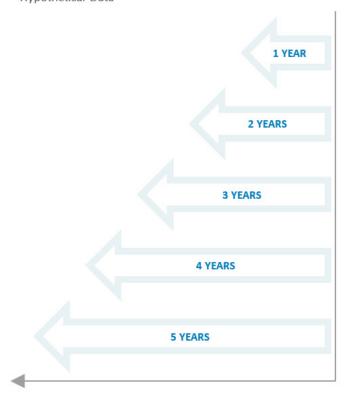
This approach would need to be altered for hired managers. Although trailing period returns are much more common in investment literature, this method was not optimal for hired managers since there are no common event endpoints that can be justified. Instead, for the purpose of the study, a start date would be used as the peg from which forward performance could be calculated. Forward performance geometrically links either monthly or quarterly returns for 1, 2, 3, 4, or 5 year periods following the start date. Periods greater than one year are annualized.

The second step in the normalization process involved calculating excess returns, which is the difference between the manager's return and the corresponding benchmark reported by the survey participant. Excess returns are important for this study for comparison reasons. Managers throughout this study were hired at different points in time making it pointless to compare absolute manager returns with one another. Returns vary among asset classes over different market cycles and at different points in time. Therefore, the constant here is the calculation of excess returns relative to the stated benchmark.

Hypothetical Data: Pre-Hire and Post-Fire Returns

Hired Managers Pre-Hire Trailing Performance

Hypothetical Data

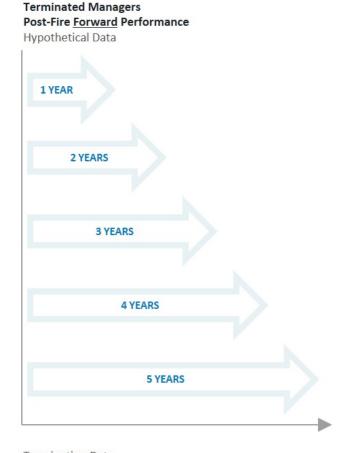


Hire Date

Once actual return streams from the respondents are normalized for use in the study, hypothetical return streams were gathered for analysis. One hypothetical scenario is the performance before the manager was hired. The second is the hypothetical performance the Plan could have earned following termination. For hypothetical returns, we utilized investment manager performance databases eVestment Alliance and Morningstar.

For hired managers, pre-hire returns and their respective benchmark returns were obtained to calculate excess performance leading up to the hire date. As the diagram above illustrates, the hire date serves as the period end point and trailing performance was calculated from that point back.

Similarly, post-fire returns were gathered for terminated managers along with their corresponding benchmarks. The termination date serves as the starting point and forward performance is calculated from that point and after.



Termination Date

Analysis 1: Hired Managers and Pre-Hire Returns

The first analysis in the study focuses on active managers that were hired. The chart below compares manager excess returns leading up to the hire date and the actual excess returns following the hire date. Prior to the hire date, the sample median and sample average all demonstrate fairly healthy excess returns. For example, over the 5-year trailing period, the sample median excess return was about 2.6%, and the average excess return was nearly 3.0%. Excess returns diminished a bit as the trailing periods tightened closer to the hire date as the 1-year trailing median and average excess returns were both about 1.7%.

The story after being hired is quite different. The median and average manager from the survey produced very little in terms of excess returns over the forward periods and did not break through the 50 bps mark. The exception is the median manager over the 4 year forward period that produced about 80 basis points of excess returns. However, the average manager's excess return over the same time frame barely moved the needle, which suggests there were some managers in the sample with fairly large negative excess returns that dragged the average down.



Analysis 2: Terminated Managers and Post-Termination Returns

Where the first analysis focused on hired managers, the second analysis evaluates terminated managers. In the periods leading up to termination, both the median and average manager from the survey produced negative excess returns. Further, the average manager's negative excess returns grow as the trailing periods shorten with largest underperformance occurring in the year leading up to termination. The data illustrates a very common situation that plays out in board rooms and investment committee meetings. At the onset of underperformance, sponsors and consultants are typically highly tolerant. But as time goes on, and underperformance accumulates, that tolerance softens and patience grows thin. Finally, the pain of continued underperformance wears on decision makers until it cannot be tolerated any longer, and the plug must be pulled, losses must be cut, and the Plan must move on.



However, in the periods following termination, the median and average managers from the survey begin to outperform. The median excess returns over the forward 1, 2, and 3 year periods are positive, but less so than the average returns over the same period, which demonstrates positive skewness among the sample over these periods. This seems reasonable as a strong rebound commonly occurs following a large overreaction and selloff of underperforming assets. Over the longer 4-year and 5-year periods, the positive skewness has diminished and the median and average manager's excess returns are more closely in-line with one another.

Analysis 3: Do Terminated Managers Outperform Their Replacements?

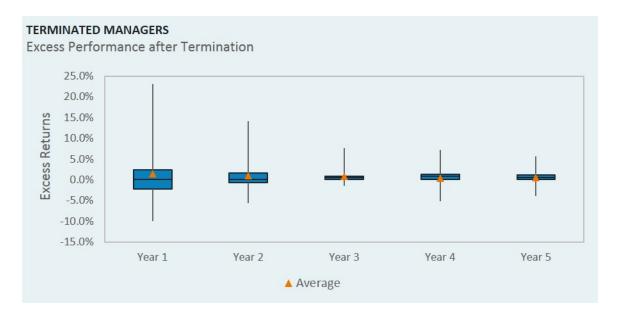
In the previous two analyses, we were somewhat myopic and simply compared excess returns of hired managers in one silo and terminated managers in another silo. Now, curiosity brings about the question, "Do terminated managers outperform their replacements?" In order to transform this question into a proper query, a number of parameters were set.

First, a clear, identifiable replacement manager or set of managers needed to be obvious from the survey results. An obvious replacement manager was determined by matching the mandates or strategies between the terminated manager and hired manager. Also, termination dates and hire dates of the replacement should have been within a reasonable time frame of one another.

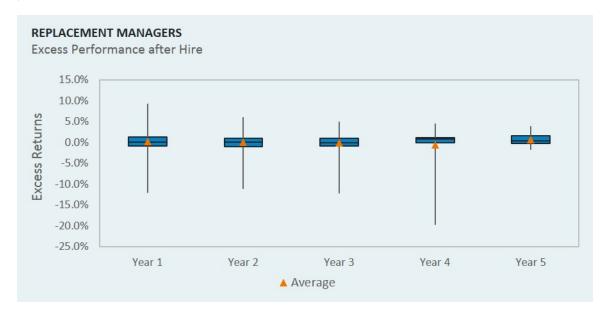
Second, if the mandate was split one-to-many, or consolidated many-to-one, the terminated/ hired relationship should have been clear from the survey results. In the case of split or consolidated mandates, the number of observations increases to the higher of either the terminated managers or hired mangers. For example, suppose a Plan held one US large cap strategy, then replaced that with two US large cap strategies (one value and one growth). The single incumbent US large cap strategy would be counted twice.

Third, since the terminated manager's performance is being compared to its replacement after the replacement date, forward performance is measured instead of the typical trailing performance. As mentioned earlier, forward performance geometrically links either monthly or quarterly return streams after an inception point. At least one year of performance is necessary to be included in this portion of the study, and only excess performance is compared. Unlike the previous two analyses, passive mandates are being included because the active/passive decision is generally based on whether the performance can justify the economics of active management. Observations that include passive mandates use 0% excess returns in the data set.

Perhaps after applying these filters, it would be worthwhile to have a glimpse into the data set and develop some context around these universes. Below are two box and whisker charts. The first chart only maps terminated managers; the second only replacement managers. Within each timeframe, the top whisker represents the top 25% of observations, and the bottom whisker represents the bottom 25%. The box in the middle represents the 25th percentile to the 75th percentile of observations and the line in the middle of the box is the median observation. Finally, the orange triangle represents the average of all observations in each time period.



The chart above represents the universe of all terminated managers' excess performance, after being terminated. A wide dispersion of excess returns is apparent in the 1st year after being terminated. Although the range of outcomes compresses each year through 3 years following termination, the dispersion of outcomes with positive excess returns is greater than those in the negative territory. In the four and five year periods after termination, the range of excess performance outcomes is a little more balanced.



The next chart displays the universe of the replacement managers and their excess returns after being hired. What is interesting about this chart is that the dispersion of outcomes seems to be greater on the negative side of the chart. In other words, the upside seems to be restricted but on the other hand, there is a greater range of outcomes on the downside. The one exception to this

is the five-year period after being hired where excess return outcomes of the replacements are compressed relative to the shorter time periods.

After examining the outcomes of terminated managers and replacement managers separately, the two would need to be compared against one another to really determine if terminated managers outperform their replacements. At first, median observations of the two groups were used for comparison purposes because the median is less affected by extreme values than the average. When comparing the excess returns of the median terminated manager against its median replacement, the results were equal over the forward 1 and 2 year periods. The median replacement manager's excess performance was 0% over these two periods, as was the median terminated manager's post-fire performance. The results of the median being around o% is likely the result of passive mandates occupying the middle of the data sets. Moving out on the timeline a little further, beginning in the forward 3-year period, some evidence of terminated managers outperforming their replacements begins to emerge. The dark bars in the chart below represent the median terminated manager's excess return while the light bars represents the median replacement manager's excess return. During the 3 year forward period, the median terminated manager's excess return was about 50 basis points while the median replacement actually posted negative 10 basis points of excess returns. Over the forward 4 and 5 year periods, the median terminated manager delivered 80 and 60 bps of excess returns while the median replacement 70 and 30 bps of excess returns over the same periods, respectively. While the evidence isn't hugely compelling, this analysis of medians does provide some indication that terminated managers outperform their replacements.



Looking at the same data, but through the lens of the average statistic, there is a bit more disparity between the two groups. Just like the previous chart, the dark bars in the chart below represent the terminated managers and the light bars represent the replacement managers. One year after being fired, the terminated managers delivered about 150 basis points of excess returns on average. On the other hand, replacement managers produced 20 basis

points of excess returns on average for the year after being hired. After being fired, terminated mangers also produced greater excess returns compared to their replacements on average over the forward 2, 3, and 4 year periods. It isn't until the 5-year forward period where terminated managers and replacement managers are at parity in terms of their excess performance.



Conclusion

In general, public pensions face difficult decisions when hiring and firing managers. By its very design, this study has the great luxury of hindsight but in the midst of a decision, board members and trustees must use the information available to come to a reasonable conclusion. Given that the future is unknowable, the timing of terminating a manager can be one of the most difficult decisions a Board can make. The timeline leading up to a termination decision typically goes like this; at the onset of manager underperformance, board members, trustees, and consultants are typically tolerant and exhibit patience. After relative underperformance accumulates over time, a threshold is reached and serious discussions begin on the topic of cutting losses or riding out the bad times. Although these decisions are tough, the results of this study can help to put things into perspective.

One perspective that we can tease out of this study is that Plans should not expect high excess returns from their newly hired manager with a stellar track record. The data suggests managers demonstrate significant excess returns prior to being retained. This is certainly understandable because investors want to hire managers that demonstrate a favorable track record. But unfortunately, investment styles and strategies move in and out of favor with the markets and more often than not a hiring will occur after this favorable period. Also, the data suggests that return history is not persistent, which leads to the next perspective that investors should consider.

Investors should also expect managers to experience periods of relative underperformance. The terminated managers in the second analysis delivered negative excess performance as a group leading up to termination. However, in the periods following termination the group delivered

positive excess performance. Holding on to underperforming managers may not always be an option given that institutions can also face headline risk and pressure from stakeholders to make a change. But it is a good practice to keep this perspective in mind and discern the degree of emotion driving the decision to change.

Finally, this study provides further evidence supporting the importance of evaluating additional factors beyond simply investment returns in a hiring or firing decision. Suppose that all the emphasis of a hiring and firing decision is placed on performance, then every investor would hire managers with great excess returns and fire those that fail to outperform. The problem with this backward looking strategy is that it would cause investors to hop around from manager to manager which would essentially translate into selling low and buying high.

To curb this behavior, institutional investors should be more curious about the drivers of performance. For example, is the manager sticking to the investment philosophy and strategy they were hired for? If that manager is steadfast in their philosophy, process, and strategy, then the expectations of when and in which market conditions they underperform and outperform should become a bit more visible. Additionally, investors should augment the drivers of performance with other factors that are more qualitative in nature. For example, is the strategy out of favor because it was recently modified as a result of an organizational change? Is the organization able to attract and retain the talent necessary to implement the desired strategy? All these perspectives combined should lead to a much more thoughtful decision making process around the hiring and firing of investment managers.

Notes & Disclosures

- SACRS State Association of County Retirement Systems; membership includes 20 California county retirement systems. www.sacrs.org.
- 2. Source: Goyal, Amit and Wahal, Sunil. "The Selection and Termination of Investment Management Firms by Plan Sponsors." The Journal of Finance, Vol LXIII, No 4, August 2008.
- 3. Source: Ibid.
- 4. Source: Goyal, Amit and Wahal, Sunil. "The Selection and Termination of Investment Management Firms by Plan Sponsors." The Journal of Finance, Vol LXIII, No 4, August 2008.
- 5. Source: Ibid.

Past performance is no guarantee of future results. This report is provided for informational purposes only and nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment strategy. The information in this report reflects prevailing market conditions and our judgment as of this date, which are subject to change. This information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability.

The material may include estimates, outlooks, projections and other "forward-looking statements," which may include terminology such as "believes," "expects," "may," "will," "should," "anticipates," or the negative of the foregoing or comparable terminology, or by discussion of strategy. Due to a variety of factors, actual events may differ significantly from those presented. Investing entails risks, including possible loss of principal.

"VERUS ADVISORY" and VERUS INVESTORS" and any associated designs are the respective trademarks of Verus Advisory, Inc. and Verus Investors, LLC." Additional information is available upon request.



999 Third Avenue, Suite 4200 Seattle, Washington 98104 206-622-3700 verusinvestments.com