

Labor Market Conditions and Productivity: Evidence from Mutual Fund Managers*

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Abstract

Our paper investigates whether the economic conditions at the time of college graduation and first employment have persistent impacts on labor market productivity using a comprehensive database on U.S. mutual fund managers over the period between 1980 and 2011. Job market candidates who graduated from college or who become employed as a mutual fund manager during weak economic times might exhibit higher innate abilities, superior motivation, or enhanced learning opportunities than those who graduated or are hired during time periods of more abundant job opportunities. Consistent with this hypothesis, we find that mutual fund managers who graduated or were hired during weak economic periods exhibit superior risk-adjusted performance compared to managers who graduated or were hired during strong economic time periods.

JEL Classification: G20, G23

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1 Introduction

The labor market conditions of job seekers vary substantially over the business cycle. Whereas newly hired fund managers amounted to around 35% of existing fund managers in 2005, the number of newly hired fund managers declined to around 12% in 2011. Thus, job seekers in 2005 encountered very different opportunities than job seekers in 2011. Our paper investigates whether the economic conditions at the time of college graduation or first employment have an impact on the labor productivity of highly-skilled professionals.

We hypothesize that job market candidates who graduated during weak markets but are able to enter the finance industry and to eventually obtain a highly-compensated job as a mutual fund manager, and job market candidates who are hired during weak economic times might exhibit higher innate abilities, superior motivation, or enhanced learning opportunities than those who graduated or are hired during time periods of more abundant job opportunities. During tough economic environments only job seekers with superior ability or motivation will obtain job offers. In contrast, the recruiting standards might be significantly looser during prosperous times when money management companies are attempting to substantially increase their workforce. In addition, depressed economic environments might provide newly hired employees superior opportunities to learn how financial markets works. These experiences might be particularly useful during distressed time periods in the future. Under this hypothesis, we should expect that money managers who graduated or are hired during weak economic time periods would exhibit superior long-term investment ability.

Alternatively, weak economic conditions might deter the most qualified professionals to enter the finance industry. These individuals might instead look for job opportunities in sectors that are less cyclical or they might decide to improve their education by pursuing advanced degrees and hope for an improvement in job market conditions. Under this alternative hy-

pothesis, we should expect that money managers who graduated in good markets or are hired during strong economic conditions exhibit superior long-term investment ability.

To address these hypotheses, we follow U.S. mutual fund managers who graduated between 1980 and 2009 and analyse their performance over the period 1990 to 2011. Analyzing these hypotheses using mutual fund manager data has two main benefits. First, mutual fund management companies are required to publicly disclose the identities of all their fund managers. Thus, we can track the careers of fund managers over time and we have information on their educational background. Second, the productivity of mutual fund managers can be estimated by the risk-adjusted performance of a mutual fund. Thus, in contrast to most other highly-skilled professionals, it is possible to obtain a more accurate proxy for the productivity of a mutual fund manager.

We find that the initial labor market conditions have a significant impact on the long-term productivity of fund managers. In our paper, we study the economic conditions both at the time the fund managers in our database graduated from college and at the time the fund managers first started managing a mutual fund. Typically, fund managers start managing a fund around 19 years after they graduate from college. Thus, our paper captures the long-term relation between initial labor market conditions and managerial ability. We use four different measures for economic conditions: an indicator variable for NBER boom periods, a measure of aggregate flows (or new money growth) into the U.S. mutual fund universe, the rate of change in the University of Michigan Consumer Sentiment Index (UMCS), and the Chicago Federal Reserve National Activity Index (CFNAI).

We find that mutual fund managers who graduated or were hired during weak economic time periods exhibit superior risk-adjusted performance compared to managers who graduated or were hired during strong economic time periods. For example, we find that fund managers who graduated during NBER recessions exhibit a Fama-French-Carhart alpha of -2.4 basis

points per month, whereas managers who graduated during boom periods exhibit an alpha of -7.5 basis points per month. Thus, the abnormal performance difference amounts to around 0.6% per year. The results remain robust if we include fixed effects for the performance periods and control for other fund and manager characteristics. In addition, our results remain qualitatively similar if we examine managers who graduated between 1960 to 2009 using the NBER booms periods which are available over a longer time period.

An influential literature in labor economics has investigated the importance of initial labor market conditions at the time when employees graduate from college and enter the job market. The literature has found that graduating during a recession adversely affects wages, although there are some controversies of whether these effects fade over time.¹ Our paper contributes to this literature by analyzing the long-term impact of initial labor market conditions on highly-skilled professionals. The main advantage of our study is that the mutual fund performance data provide us with relatively accurate proxies for the productivity of employees hired during different economic environments.

More recently, several papers have investigated the impact of early personal experiences on future economic behavior. Malmendier and Nagel (2011) find that generations growing up during the Great Depression take more financially conservative decisions. Similarly, Malmendier, Tate, and Yan (2011) find that corporate managers who were born during the Great Depression are more conservative in their leverage decisions. Schoar and Zuo (2013) find that corporate managers who start their careers during economic recessions have lower capital expenditures, lower research and development expenses, and lower capital leverage. Finally, Clement and Law (2013) find that analysts who begin their career in an economic recession are more pessimistic and conservative in their earnings forecasts. Our paper differs from

¹Papers in this literature include, among others, Beaudry and DiNardo (1991), Baker, Gibbs, and Holmstrom (1994), Oyer (2006), Oyer (2008), Kahn (2010), Oreopoulos, Von Wachter, and Heisz (2012), and Liu, Salvanes, and Sorensen (2012).

this literature by focusing on the performance of fund managers instead of the risk taking incentives.

Besides the contribution to the literature on the impact of economic conditions on labor markets, our paper also contributes to the mutual fund literature. There is increasing evidence that some managers can deliver superior performance, at least before expenses.² Our paper documents that the investment ability of a manager depends on the economic conditions at the time the manager graduated or first started managing a mutual fund. In addition, the investment ability of fund managers has been shown to depend on the economic conditions.³ Our results differ from this literature since we do not analyze the contemporaneous relation between economic conditions and performance. Instead, we analyze the relationship between the economic conditions during the years when the fund managers graduated or when they first became a mutual fund manager. Our sample fund managers graduated between 1980 to 2009, and we follow their fund performance from 1990 onwards.

The remainder of our paper is structured as follows. Section 2 describes the data sources, the construction of the main variables, and the summary statistics. Section 3 analyzes the relation between the economic conditions at the time of the graduation of the fund managers and their subsequent performance of their managed funds. Section 4 analyzes the relation between the economic conditions at the time when the fund manager first started to manage a mutual fund. Section 5 concludes.

²See, for example, Grinblatt and Titman (1993), Brown and Goetzmann (1995), Ferson and Schadt (1996), Gruber (1996), Carhart (1997), Daniel, Grinblatt, Titman, and Wermers (1997), Wermers (2000), Baks, Metrick, and Wachter (2001), Bollen and Busse (2001), Coval and Moskowitz (2001), Berk and Green (2004), Chen, Hong, Huang, and Kubik (2004), Christoffersen and Sarkissian (2009), Cohen, Coval, and Pastor (2005), Kacperczyk, Sialm, and Zheng (2005), Kosowski, Timmermann, Wermers, and White (2006), Kacperczyk and Seru (2007), Kacperczyk, Sialm, and Zheng (2008), Mamaysky, Spiegel, and Zhang (2008), Cremers and Petajisto (2009), Kojen (2009), Da, Gao, and Jagannathan (2010), Huang, Sialm, and Zhang (2011), and Berk and Van Binsbergen (2012).

³See, for example, Ferson and Schadt (1996), Moskowitz (2000), Kosowski (2006), Glode (2011), and Kacperczyk, Van Nieuwerburgh, and Veldkamp (2012).

2 Data and Summary Statistics

We describe in this section the sample construction and report some key summary statistics.

2.1 Economic Conditions

We use four measures for economic conditions: an indicator variable for NBER boom periods, a measure of aggregate flows (or new money growth) into the U.S. mutual fund universe, the rate of change in the University of Michigan Consumer Sentiment Index (UMCS), and the Chicago Federal Reserve National Activity Index (CFNAI).

We use the recessionary and expansionary dates of the U.S. economy provided by the NBER to create a Boom indicator variable that takes on unity during expansionary months, and zero during recessionary months.⁴ We then average this indicator variable over different time windows to capture shorter-term as well as longer-term expansionary and recessionary periods.

The second measure is based on the aggregate flows into U.S. mutual funds. We first compute the dollar flows into each fund by assuming that the new money is invested at the end of each month. The new money growth into the fund f at time t is defined as the dollar change in the monthly total net asset value (TNA) minus the price appreciation of the fund over the month ($R_{f,t}$):

$$FLOW_{f,t} = TNA_{f,t} - TNA_{f,t-1} * (1 + R_{f,t}). \quad (1)$$

Next, we aggregate the fund flows of all funds in the CRSP mutual fund database in each month and divide by the the initial fund value to obtain the aggregate growth rate of fund flow (AGGNMG). We winsorize the aggregate new money growth at the 1% and 99% to remove

⁴The NBER recession dates can be obtained from <http://www.nber.org/cycles.html>. Our NBER boom variable is simply defined as one minus an indicator variable for a recession.

outliers.

$$AGGNMG_{f,t} = \frac{\sum_f FLOW_{f,t}}{\sum_f TNA_{f,t-1}}. \quad (2)$$

The fund flows measure the strength of the demand for these investment vehicles and are a proxy for the economic environment in the mutual fund sector. As prolonged strengths and weaknesses in the mutual fund sector are more likely to have a significant impact on the labor market than the singular monthly economic condition, we average the aggregate fund flows in each month over a predetermined window. Lastly, to compare periods with higher aggregate fund flows relative to periods with lower aggregate fund flows, we rank the average aggregate new money growth measures over our entire sample period. Thus, a higher rank value in month t relative to month $t - 1$ represents a higher aggregate new money growth in month t than month $t-1$.

The third measure of economic conditions is based on the Consumer Sentiment from the University of Michigan (UMCS).⁵ This index is based on surveys of at least 500 households and incorporates the consumers' expectations of their individual financial situations and of the short-term and long-term prospects of the general economy. A higher rate of change in this index captures improving consumer sentiment on the state of the economy in general. We average the monthly rate of change in the UMCS index over various windows in order to capture short-term as well as longer-term consumer sentiment, and then rank the average monthly rate of change over our entire sample period. Thus, a higher rank value represents more optimistic consumer sentiment of the economy.

The final measure of economic conditions is based on the Chicago Fed National Activity Index (CFNAI).⁶ This monthly series is designed to gauge the economic activity and related

⁵We obtain the rate of change in the UMCS index (CHGUMCS) from the Economic Data website of the Federal Reserve Bank of St. Louis <http://research.stlouisfed.org/fred2/series/UMCSENT>.

⁶We obtain the Chicago Fed National Activity Index (CFNAI) from the Economic Data website of the Federal Reserve Bank of St. Louis <http://research.stlouisfed.org/fred2/series/CFNAI>.

inflationary pressures. A zero value indicates that the economy is growing at historical rates while a negative (positive) value indicates below- (above-) average growth. Again, we average the index over various windows and rank the average index value over our sample period. Thus, a higher rank value represents a higher intensity in economic activities.

Figure 1 depicts the average values for the four economic environment proxies over each calendar year. For example, the NBER boom variable equals 0.25 if three out of 12 months in the calendar year are classified as recession periods by the NBER business cycle dating committee. The economic contractions in the early 1980s, early 1990s, early 2000s and late 2000s are visible in the time series. All pairwise correlations are positive and range between 0.10 (NBER boom and fund flows) and 0.78 (NBER boom and National Activity Index).⁷

2.2 Fund Manager Data

We obtain data on mutual fund managers until 2011 from Morningstar. We restrict our sample to fund managers with non-missing information on college graduation years. We merge the Morningstar database to the fund returns and fund characteristics data from the Survivorship Bias Free Mutual Fund Database provided by the Center for Research in Security Prices (CRSP) using the fund CUSIP.

The Morningstar data provides the name of fund managers, the starting and ending dates of the manager at a particular fund, and educational details on the managers such as their undergraduate college, graduation year, and whether they have a Master in Business Administration (MBA) degree or a doctoral degree (PHD). We require the college graduation year of managers to be non-missing in order to examine economic conditions around the graduation year. Further, we require managers to have non-missing starting dates and drop observations

⁷Some of the economic conditions variables are not immediately publicly available. To investigate the robustness of our results to a look-ahead bias, we report some results that implement various disclosure delays.

where the ending date of manager precedes the starting date. Managers with missing ending dates are assumed to continue until the end of our sample period. We remove observations where the starting date of the fund manager is more than 60 days prior to the inception date of the fund. We require the fund CUSIP to be non-missing in order to match the Morningstar data to the CRSP fund data.

For the first part of our paper where we focus on economic conditions around graduation years of the managers, we retain fund managers who graduated from 1980 to 2009 and follow their fund performance from January 1990 to December 2011. We assume that the managers graduate in June of the graduation year since this information is not provided by Morningstar. For the second part of our analyses where we focus on economic conditions around the first employment date of the manager in the mutual fund industry, we restrict the year of first employment to the period from 1980 to 2009. We only require the graduation year to be non-missing. Similarly, we follow the fund performance of these managers from January 1990 to December 2011.

We create an indicator variable for the top 25 universities in the world following the Shanghai Jiaotong's International University rankings to capture the strength of the educational institution that the fund manager graduated from.⁸

Bertrand and Schoar (2003) examine top managers across firms and find that managers who hold an MBA degree appear more aggressive in their corporate strategies. Similarly, we create an *MBA* indicator variable to investigate whether fund managers with an MBA degree take on more aggressive investment strategies.

Our analyses are carried out at the fund level. To account for multiple managers at a fund,

⁸The ranking is available at <http://www.shanghairanking.com/>. The top 25 universities are Harvard, Stanford, MIT, Berkeley, Cambridge, CalTech, Princeton, Columbia, Chicago, Oxford, Yale, UCLA, Cornell, Pennsylvania, UCSD, Washington, John Hopkins, UCSF, Wisconsin-Madison, Tokyo, University College of London, Michigan-Ann Arbor, ETH Zurich, Imperial College, Illinois-Urbana Champaign.

we average the economic conditions around the graduation years of all managers at a fund. The *MBA* indicator variable takes a value of one if at least one fund manager has an MBA degree. Our *TOP25* indicator variable takes a value of one if at least one manager graduated from a college ranked among the top 25 colleges in the world. We further create a *FOREIGN* indicator variable that takes a value of one if at least one fund manager graduated from a university outside the United States.

2.3 Mutual Fund Data

From the CRSP mutual fund database, we select diversified U.S. equity funds since these funds follow relatively homogeneous investment strategies where we can use well-established performance evaluation models. We remove index funds that are passively managed as these funds follow a benchmarking strategy that requires little managerial ability. We also exclude balanced funds, international funds and sector funds. Our fund sample must further satisfy the following criteria: First, the funds must have non-missing monthly total net assets and returns, non-missing expense and turnover ratios, non-missing loads and Lipper investment objective codes. Second, the funds must have at least 36 months of non-missing returns. Third, only the oldest share class is retained in order to take into consideration the longest possible tenure of the manager at any fund. We identify multiple share classes using the fund names and MFLINKS based on Wermers (2000).

Next, we merge the Morningstar data to the CRSP mutual fund data using the fund CUSIP and drop funds that cannot be merged. We compute tenure (*TENURE*) of fund managers from the first month at the fund up to the current month. In the second part of our paper where we examine the economic conditions around the first employment date of the manager in the mutual fund industry, we control for the experience of the managers (*EXPERIENCE*) defined as the length of time from June of the graduation year up to the month prior to first

employment date at a mutual fund. This variable takes into consideration that managers who joined the mutual fund industry later could have gained experience somewhere else. Unfortunately, we cannot observe whether this experience was gained in the finance sector or in other areas.

Our primary measure of managerial ability is the monthly performance of the fund they managed over their tenure at the fund. We use the risk-adjusted returns according to the Fama-French-Carhart four-factor model. To obtain the Fama-French-Carhart risk-adjusted returns, we estimate the OLS factor loadings of funds on a rolling basis using the prior 36 months of fund returns. The alpha is then estimated by the difference between the actual monthly fund returns and the expected fund returns using the estimated betas. The factor loadings of fund f at time t are computed as follows:

$$\begin{aligned}
 R_{f,t} - R_{TB,t} &= \alpha_{f,t} + \beta_{f,t}^M (R_{M,t} - R_{TB,t}) + \beta_{f,t}^{SMB} (R_{S,t} - R_{B,t}) \\
 &\quad + \beta_{f,t}^{HML} (R_{H,t} - R_{L,t}) + \beta_{f,t}^{UMD} (R_{U,t} - R_{D,t}) + \epsilon_{f,t}.
 \end{aligned} \tag{3}$$

The return of fund portfolio f during time period t is denoted by $R_{f,t}$. The index M corresponds to the market portfolio and the index TB to the risk-free Treasury bill rate. Portfolios of small and large stocks are denoted by S and B , respectively; portfolios of stocks with high and low ratios between their book values and their market values are denoted by H and L , respectively; and portfolios of stocks with relatively high and low returns during the previous year are denoted by U and D , respectively. The Carhart (1997) model nests the CAPM model (which includes only the market factor) and the Fama and French (1993) model (which includes the size and the book-to-market factors in addition to the market factor).⁹

We control for the logarithm of the total net assets (TNA) of the fund and the logarithm

⁹The results are not affected qualitatively if we report instead alphas based on the CAPM, the Fama and French (1993) model, or a five factor model that adds the liquidity factor of Pastor and Stambaugh (2003) as a fifth factor to the Carhart model.

of fund age (*AGE*) where fund age is computed as the length of time from the inception month up to the current month t . We also control for total loads, expenses, and turnover ratios, and flows into the fund. In addition, we create a *TEAM* indicator variable to take into consideration funds that are managed by more than one manager. The *TEAM* indicator variable takes on unity if there are multiple managers at the fund in month t , and zero otherwise. All the control variables are lagged by one month except for total loads, expense ratios, and turnover ratios, which are lagged by one year. Lastly, we include an indicator variable for a *STAR* fund manager following Nanda, Wang, and Zheng (2004). This indicator variable takes on unity if the fund is awarded a five-star rating at any point over the past 12 months and zero otherwise.

2.4 Summary Statistics

Table 1 summarizes the moments of the main variables of our paper. Panel A summarizes the statistics for the proxies of economic conditions. The mean ranks for the fund flows, the consumer sentiment, and the national activity index are all close to 50%. Boom periods occur according to the NBER around 75% of the time.

Panel B summarizes the moments for the fund manager data. Our sample includes college graduation information for 852 unique fund managers who manage 959 funds. There is a substantial gap between college graduation and the time when graduates first manage a mutual fund. College graduates, on average, first become a fund manager around 19 years after graduating from college. The average tenure of a fund manager is 3.55 years. Around 63% of fund managers have an MBA degree besides an undergraduate degree and 26% graduated from one of the top 25 international universities. Non-U.S. college graduates amount to only 3% of the fund managers in our sample.

Panel C summarizes the statistics of mutual fund characteristics. The mean fund size of

\$1,111 million exceeds substantially the median size of \$116 million. The average fund age is 13 years. Mutual funds in our sample charge an average expense ratio of 1.24% and total loads of 4.19%. The average turnover ratio is 86%. Around 28% of funds are team managed and around 3% of funds are classified as star funds. Funds over our sample underperform the Fama-French-Carhart model by 5 basis points per month and have an average tracking error of 0.22% per month. Funds in our sample attract new money of 1.81% per year.

3 Economic Conditions at College Graduation

We analyze in this section whether the economic conditions at the time of college graduation have a persistent impact on the investment ability of mutual fund managers. Fund managers who graduated during weak economic time periods likely faced higher hurdles to enter the finance industry and might have superior investment abilities and motivation than managers who graduated during more prosperous time periods, when the entry into the finance industry was easier. In Section 4, we will analyze the related question of whether college graduates who first started to manage a fund during weak economic periods exhibit differential performance compared to managers who started during strong economic time periods.

3.1 Univariate Relation

Table 2 reports the performance of fund managers who graduated during different economic time periods. We average the economic variables over the twelve months prior to the graduation date to obtain the proxies for the economic environments. The panels focus on different subsamples to ensure that the fund performance is not directly influenced by the economic conditions at graduation. Panels A, B, and C exclude the fund performance during the first 5, 10, or 15 years after graduation.

The rows in each panel use a different proxy for the economic conditions. We divide

mutual funds into two groups using the NBER recession criterion. Funds where the manager graduated during a recessionary period are classified as “Low Economic Condition” and the remaining funds are classified as “High Economic Condition.” Recessionary periods are defined as years where more than 6 months are NBER recessionary periods. Funds are divided into three groups according to the remaining economic criteria. The 20% of time periods with the worst economic environments are listed in the “Low” group and the 20% of time periods with the best economic environments are listed in the “High” group. The remaining 60% of time periods are classified in an intermediate group.

The first set of columns reports the CAPM alphas and the second set of columns reports the Fama-French-Carhart alphas of the corresponding managers.

The first row of Panel A of Table 2 indicates that fund managers who graduated during NBER recessions exhibit a Fama-French-Carhart alpha of -2.4 basis points per month, whereas managers who graduated during boom periods exhibit an alpha of -7.5 basis points per month. Thus, the abnormal performance difference amounts to around 0.6% per year. The results are not affected substantially if we exclude the first 10 or the first 15 years subsequent to the college graduation date, as shown in Panels B and C. The results using the CAPM model are qualitatively similar, although the statistical and economic significance is slightly lower than using the Carhart model.

The results are very similar if we use the other three proxies for the economic environments. Managers who graduated during time periods of low fund flows outperform managers who graduated during time periods of high fund flows by 2.9 basis points per month using the CAPM alphas and by 4.7 basis points per month using the Fama-French-Carhart alphas. The magnitude of the results increases if we exclude the first 10 years after graduation.

The results are qualitatively unaffected if we measure the economic environments using the Consumer Sentiment measure or the National Activity Index.

Overall, we find economically and statistically significant effects of the initial economic conditions at the time of graduation on the long-term productivity of fund managers. These results are particularly surprising since an average mutual fund manager starts managing a mutual fund almost 20 years after graduating from college. This long time gap also ensures that the results are not driven by differential ability of fund managers over the business cycle.

3.2 Multivariate Relation

To analyze whether the results are affected after controlling for other fund characteristics, we run the following multivariate regression:

$$\begin{aligned}
PERF_{f,t} = & \beta_1 EC_{f,t-1} + \beta_2 PERF_{f,t-1} + \beta_3 VOL_{f,t-1} + \beta_4 LOG(TNA_{f,t-1}) + \beta_5 EXP_{f,t-1} \\
& + \beta_6 TURN_{f,t-1} + \beta_7 LOAD_{f,t-1} + \beta_8 LOG(AGE_{f,t-1}) + \beta_9 LOG(TENURE_{f,t-1}) \\
& + \beta_{10} LOG(EXPER_{f,t-1}) + \beta_{11} NMG_{f,t-1} + \beta_{12} TEAM_{f,t-1} + \beta_{13} STAR_{f,t-1} \\
& + \beta_{14} MBA_{f,t-1} + \beta_{15} FOREIGN_{f,t-1} + \beta_{16} TOP25_{f,t-1} + \beta_{0,t} + \epsilon_{f,t}, \quad (4)
\end{aligned}$$

where $PERF$ is either the CAPM or the Fama-French-Carhart abnormal return of fund f in month t , EC is one of the four measures for the economic conditions at the time of graduation for the fund manager averaged over the previous 12 months, VOL is the standard deviation of the monthly fund performance over the prior year, TNA is the fund size, EXP and $TURN$ are the fund's annual expense and turnover ratios, $LOAD$ is the annual total maximum load, AGE is the fund age in months, $TENURE$ and $EXPER$ capture the time in months since the fund manager started as a manager of the corresponding fund and the time period since the manager graduated from college, NMG is the growth rate of new money, $TEAM$ is an indicator variable for whether the fund is managed by a team, $STAR$ is an indicator variable for whether the fund is a five-star fund, MBA is an indicator variable for whether the manager obtained an MBA degree, $FOREIGN$ is an indicator variable for whether the

manager graduated from a foreign college, and *TOP25* is an indicator variable for whether the manager graduated from one of the top 25 international universities.

The regression includes time-fixed effects and the standard errors are clustered by fund. All independent variables are lagged by at least one month relative to the dependent variable.

Table 3 summarizes the coefficient estimates for the four economic proxies using Fama-French-Carhart alphas. The multivariate results are broadly consistent with the univariate results summarized in Table 2. The alphas of mutual funds managers who graduated from college during economic boom periods are lower than the alphas of managers who graduated during recession periods. For example, the alpha of a mutual fund is 2.1 basis points per month higher for managers who graduated during NBER recession periods compared to managers who graduated during boom periods. The results are similar using the alternative proxies of economic conditions.

The remaining coefficients are broadly consistent with the mutual fund literature. Mutual fund performance is persistent, as shown previously by Sharpe (1966), Grinblatt and Titman (1992), Hendricks, Patel, and Zeckhauser (1993), Brown and Goetzmann (1995), Carhart (1997), Bollen and Busse (2005), and Berk and Van Binsbergen (2012) among many others. We also find that star funds continue to exhibit superior fund performance, consistent with Nanda, Wang, and Zheng (2004). We find that the performance of funds decreases with the expense ratio, as discussed by Gil-Bazo and Ruiz-Verdu (2009), and decreases with the fund size, as shown by Chen, Hong, Huang, and Kubik (2004). Consistent with the smart money effect of Zheng (1999), we find that fund performance increases with the fund flows over the prior year. Fund managers with an MBA and graduates from the top 25 global colleges also exhibit superior investment ability, consistent with Chevalier and Ellison (1999).

In the remainder of this section, we analyze the robustness of the results using alternative factor models, time subperiods, and portfolio formation periods.

3.3 Alternative Factor Models

Table 4 reports the regression estimates using CAPM and Fama-French alphas. The impact of initial conditions at graduation generally have a negative impact on the future performance of mutual fund managers, although the results are statistically more noisy using the CAPM and the Fama-French alphas compared to the Fama-French-Carhart model.

3.4 Exclusion of Initial Time Period after Graduation

Table 5 excludes the performance of funds during the initial 5 or 10 years subsequent to the college graduation of the fund manager to avoid a contamination of the performance results by the initial economic conditions at the time of the graduation. The results remain very similar to the base case results.

3.5 Time Subsamples

Table 6 separates the sample into two subperiods according to the fund performance. The first subsample includes observations from 1990-1999, a time period with favorable stock market performance, and the second subsample includes observations from 2000-2011, a more turbulent time period that includes the burst of the internet bubble and the recent financial crisis. We find that the results are more pronounced for the second subsample. Thus, the superior investment ability of recession managers is particularly pronounced during weak economic environments. However, the coefficients are not statistically significantly different across the two time periods. The remaining coefficient estimates remain similar across the two subperiods.

3.6 Length of Time Period Around Graduation

In our base-case specification in Table 3, we compute the economic conditions over a 12 month period around college graduation, which ranges from July in the year prior to the college graduation to June of the year of graduation. Initial job placements are typically made during this time interval. Table 7 shows that the results are not affected significantly if we lengthen or shorten the time period by analyzing the six months from January to June of the graduation year or if we use the 24-month time period from July two years prior to graduation to the June of the graduation year.

3.7 Risk Taking

Malmendier and Nagel (2011) show that individuals who have experienced low stock-market returns throughout their lives are less willing to take financial risk. The economic conditions at the time of college graduation could also be important for professional money managers.

To analyze whether managers who graduated during different economic environments are exposed to different levels of total or systematic risk later in their working careers, we compute the standard deviations and the CAPM betas of mutual funds in our sample over non-overlapping three-year time periods. We regress these measures of risk on the economic conditions at the time of graduation and on additional fund and manager characteristics.¹⁰

Table 8 indicates that risk taking is higher for managers who graduated during boom periods according to the NBER or the National Activity Index. On the other hand, risk taking is not significantly related to the mutual fund flows and the consumer sentiment at

¹⁰Theoretical and empirical papers on risk shifting include, for example, Starks (1987), Grinblatt and Titman (1989), Brown, Harlow, and Starks (1996), Chevalier and Ellison (1997), Carpenter (2000), Busse (2001), Elton, Gruber, and Blake (2003), Gorjaev, Palomino, and Prat (2003), Ross (2004), Li and Tiwari (2006), Basak, Pavlova, and Shapiro (2007), Kempf and Ruenzi (2008), Kempf, Ruenzi, and Thiele (2009), Massa and Patgiri (2009), Elton, Gruber, Blake, Krasny, and Ozelge (2010), Hu, Kale, Pagani, and Subramanian (2010), Huang, Sialm, and Zhang (2011), and Schwarz (2011).

the time the fund manager graduated from college. Thus, fund managers who graduated or were hired during challenging time periods exhibit superior performance, but do not appear to expose themselves to additional systematic or idiosyncratic risks.

It is interesting that more experienced managers take less total risk but more systematic risk. In addition, MBA graduates tend to take more systematic risk but do not take more total risk.

4 Economic Conditions at First Employment

Section 3 shows that the economic conditions at the time of college graduation are significantly related to the subsequent performance of fund managers, although college graduation, on average, precedes the first employment date as a fund manager by around 20 years. We analyze in this section whether the economic conditions at the beginning of the employment as a fund manager have an impact on the investment ability of mutual fund managers. Fund managers who start during weak economic time periods might have superior investment abilities and motivation than managers who start their careers during more prosperous time periods when the entry into the finance industry was easier.

4.1 Univariate Relation

We first analyze the univariate relation between economic conditions at the beginning of the careers of fund managers. Table 9 reports the performance for fund managers who started their careers as a fund manager during different economic time periods. We average the monthly economic variables over the twelve months prior to their starting date to group managers by economic conditions. The panels focus on different subsamples to ensure that the fund performance is not directly influenced by the economic conditions at the start of the careers as a fund manager.

Panels A, B, and C exclude the fund performance during the first 5, 10, or 15 years after first employment. In contrast to Table 2, the exclusion of the first 5 years reduces the number of observations substantially since the mean tenure of a fund manager in our sample is 3.55 years.

The rows in each panel use a different proxy for the economic conditions, similar to Table 2. The first set of columns reports the CAPM alphas and the second set of columns reports the Fama-French-Carhart alphas of the corresponding managers.

The results are the strongest if we use fund flows as a proxy of the economic environment. This is plausible since fund flows are the most direct measure of labor market conditions in the mutual fund sector. For example, Panel A of Table 9 indicates that individuals who started their careers as a fund manager during time periods in the lowest quintile of fund flows exhibit a Fama-French-Carhart alpha of 1.0 basis points per month, whereas individuals who started their careers during time periods in the highest quintile of fund flows exhibit an alpha of -9.4 basis points per month. The results are even more pronounced if we exclude the first 10 years after graduation. These results are unlikely directly affected by the fund flows, since we exclude the first 5 or 10 years after the measurement of the fund flows. The results using the CAPM model are qualitatively similar, although the statistical and economic significance is slightly lower than using the CAPM model.

4.2 Multivariate Relation

To analyze whether the results are affected after controlling for other fund characteristics, we run multivariate regressions, similar to equation (4). The only difference is that the economic conditions are measured at the time of first employment as a fund manager instead of the time of graduation.

Table 10 summarizes the coefficient estimates for the four economic proxies using CAPM

and Fama-French-Carhart alphas. The alphas of mutual funds managers who started their careers during economic boom periods are lower than the alphas of managers who started their careers during recession periods. For example, the alpha of a mutual fund is between 1.5 and 1.7 basis points per year higher for managers who started managing a fund during NBER recession periods compared to managers who started during boom periods. The results are similar using mutual fund flows and the National Activity Index as proxies of economic conditions, but are weaker using the Consumer Sentiment.

4.3 Time Subsamples

Table 11 separates the sample into two subperiods (1990-1999 and 2000-2011). Consistent with Table 6, we find that the results are more pronounced during the second subperiod.

4.4 Length of Time Period Around Graduation

Finally, Table 12 summarizes the results where we measure the economic conditions over different time horizons prior to the employment start as a fund manager. The results are more pronounced if we use a longer time window.

Overall, the impact of the economic conditions prior to the first employment as a fund manager are consistent with the impact of the economic conditions around the time of graduation. These results strengthen our conclusion that the labor market conditions at the beginning of the careers of fund managers are significantly related to the long-term productivity of fund managers.

5 Conclusions

We find that economic conditions at the time of college graduation or first employment have persistent impacts on labor market productivity using a comprehensive database on U.S.

mutual fund managers over the period between 1980 and 2011. Job market candidates who graduated from college during weak markets but are able to become a mutual fund manager subsequently or who become employed as a mutual fund manager during weak economic times exhibit higher innate abilities, superior motivation, or enhanced learning opportunities than managers who graduated or are hired during prosperous time periods.

Our results indicate that selection issues in labor markets play an important role. Highly-skilled money managers who enter the finance industry during weak economic time periods exhibit superior investment abilities.

Our results also have important implications for the investment area. We find that fund managers who graduated or were first hired during difficult economic times exhibit superior risk-adjusted performance over the longer term. Thus, fund investors should take into account the biographical background of fund managers when selecting mutual funds.

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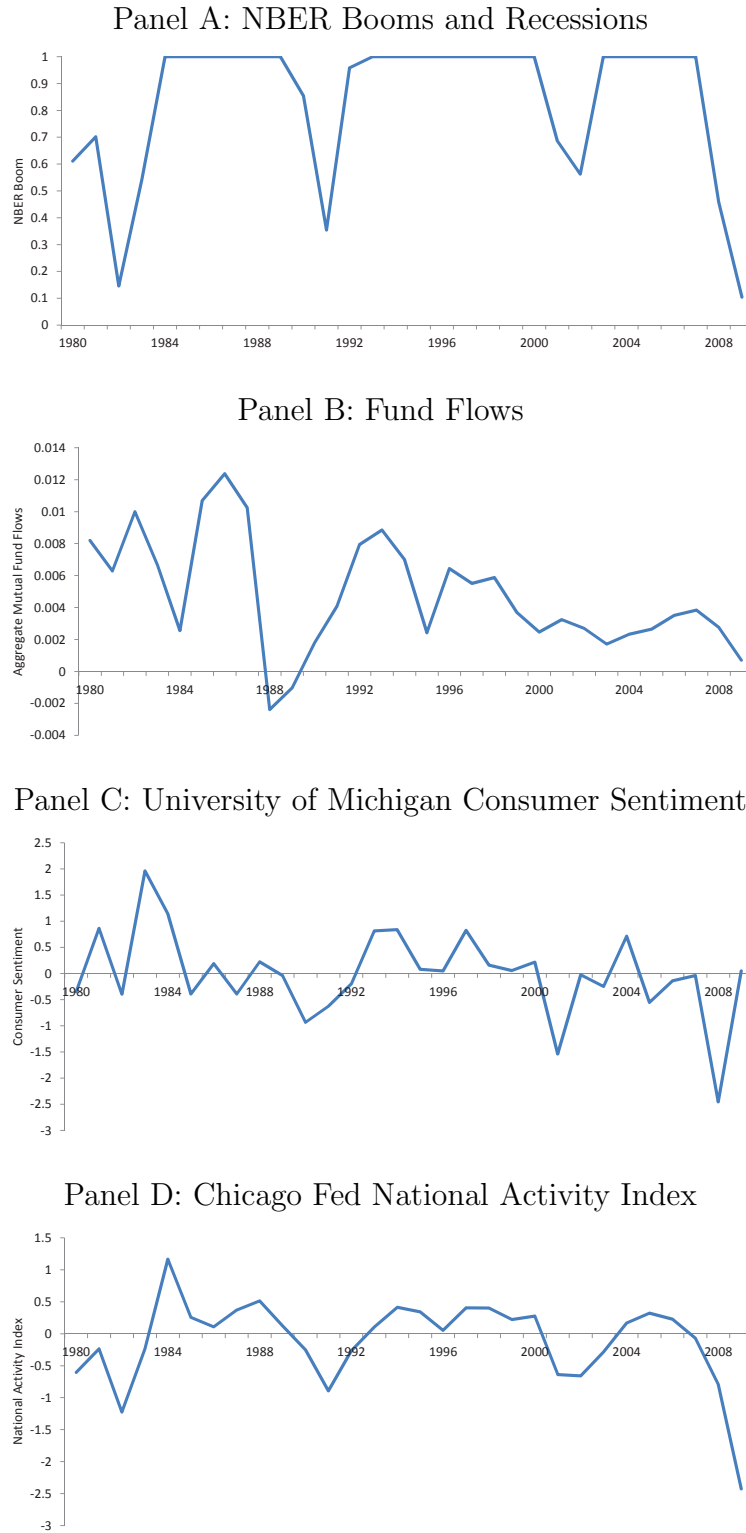


Figure 1: **Time Series of Economic Conditions**
 The figure depicts the time series of the economic conditions.

Table 1: Summary Statistics

This table presents the summary statistics for our mutual fund sample over the period between 1990 and 2011.

	Mean	Std.Dev.	Quartile 1	Median	Quartile 3
Panel A: Proxies of Economic Conditions					
NBER Boom Period (Prior 12 Mths in %)	75.46	29.64	58.33	83.33	100.00
Rank of Fund Flow (Prior 12 Mths in %)	44.45	28.41	14.81	44.44	64.81
Rank of National Activity Index (Prior 12 Mths in %)	43.87	28.74	22.22	40.74	59.26
Rank of Consumer Sentiment (Prior 12 Mths in %)	52.04	32.44	22.22	51.85	81.48
Panel B: Fund Manager Characteristics					
Time between Graduation and Employment (in Years)	18.81	7.75	13.25	17.83	23.42
Tenure (in Years)	3.55	3.25	1.25	2.58	4.83
MBA	63.01	48.28	0	1	1
Foreign	2.98	16.99	0	0	0
Top 25 International Colleges	26.31	44.03	0	0	0
Panel C: Fund Characteristics					
Total Net Assets (in Millions)	1110.69	5057.38	23.50	116.07	504.60
Expense Ratio (in %)	1.24	0.45	1.01	1.25	1.48
Total Loads (in %)	4.19	2.54	1.51	5.51	5.75
Turnover Ratio (in %)	85.59	79.73	37.12	67.00	112.00
Fund Age (in Years)	13.11	15.34	3.67	7.75	34.75
Star Fund (Prior 12 Mths in %)	3.27	17.79	0.00	0.00	0.00
Team Managed (in %)	28.14	44.97	0.00	0.00	1.00
NMG (in %)	1.81	10.02	-1.29	-0.03	2.14
Fama-French-Carhart Alpha (in %)	-0.05	0.62	-0.28	-0.06	0.17
Std. Dev. Fama-French-Carhart Alpha (Prior 12 Mths in %)	0.22	0.38	0.06	0.10	0.17

Table 2: Fund Performance by Economic Conditions at College Graduation of Fund Manager

This table presents the CAPM and the Fama-French-Carhart Alphas of mutual funds with managers who graduated from college in different economic environments.

Panel A: More than 5 Years After Graduation								
	CAPM Alphas				Fama-French-Carhart Alphas			
	Low	Mid	High	High-Low	Low	Mid	High	High-Low
NBER Recession	-0.007		-0.036	-0.029** (0.012)	-0.024		-0.075	-0.051*** (0.010)
Fund Flows	-0.013	-0.017	-0.042	-0.029** (0.012)	-0.022	-0.052	-0.070	-0.047*** (0.011)
Consumer Sentiment	0.021	-0.037	-0.023	-0.044*** (0.012)	0.003	-0.073	-0.042	-0.045*** (0.008)
National Activity	0.030	-0.040	-0.017	-0.047*** (0.012)	0.006	-0.061	-0.070	-0.076*** (0.010)

Panel B: More than 10 Years After Graduation								
	CAPM Alphas				Fama-French-Carhart Alphas			
	Low	Mid	High	High-Low	Low	Mid	High	High-Low
NBER Recession	-0.008		-0.048	-0.040*** (0.015)	-0.030		-0.092	-0.062*** (0.011)
Fund Flows	-0.011	-0.021	-0.063	-0.052*** (0.013)	-0.032	-0.060	-0.089	-0.057*** (0.012)
Consumer Sentiment	0.032	-0.047	-0.040	-0.072*** (0.012)	0.003	-0.090	-0.052	-0.055*** (0.008)
National Activity	0.037	-0.045	-0.054	-0.091*** (0.015)	0.001	-0.072	-0.094	-0.095*** (0.012)

Panel C: More than 15 Years After Graduation								
	CAPM Alphas				Fama-French-Carhart Alphas			
	Low	Mid	High	High-Low	Low	Mid	High	High-Low
NBER Recession	-0.045		-0.060	-0.015 (0.021)	-0.064		-0.119	-0.055*** (0.014)
Fund Flows	-0.071	-0.030	-0.087	-0.016 (0.018)	-0.076	-0.085	-0.115	-0.039** (0.016)
Consumer Sentiment	-0.019	-0.070	-0.054	-0.035** (0.015)	-0.035	-0.122	-0.084	-0.049*** (0.010)
National Activity	-0.013	-0.075	-0.038	-0.025 (0.022)	-0.037	-0.109	-0.104	-0.067*** (0.016)

Table 3: Fund Performance by Economic Conditions at College Graduation of Fund Manager

This table presents the Fama-French-Carhart Alphas of mutual funds with managers who graduated from college in different economic environments.

	Economic Conditions at Fund Manager Graduation			
	NBER Booms	Fund Flows	Consumer Sentiment	National Activity
Econ. Cond.	-0.021** (0.010)	-0.022** (0.011)	-0.019** (0.008)	-0.018* (0.009)
Prior Alpha	0.739*** (0.015)	0.739*** (0.015)	0.739*** (0.015)	0.739*** (0.015)
Fund Std.Dev.	-0.082* (0.045)	-0.082* (0.045)	-0.083* (0.045)	-0.083* (0.045)
LOG(TNA)	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)
Expenses	-2.294*** (0.873)	-2.260** (0.884)	-2.304*** (0.885)	-2.305*** (0.879)
Turnover	-0.022*** (0.004)	-0.022*** (0.004)	-0.022*** (0.004)	-0.022*** (0.004)
Load	-0.061 (0.120)	-0.079 (0.119)	-0.078 (0.119)	-0.057 (0.121)
LOG(Tenure)	0.003 (0.003)	0.002 (0.003)	0.004 (0.003)	0.003 (0.003)
LOG(Age)	0.005 (0.004)	0.005 (0.004)	0.005 (0.004)	0.005 (0.004)
LOG(Experience)	-0.003 (0.006)	-0.004 (0.007)	-0.001 (0.007)	-0.002 (0.006)
Flows	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)
Team	0.000 (0.006)	0.002 (0.006)	0.000 (0.006)	0.000 (0.006)
Star	0.224*** (0.019)	0.223*** (0.019)	0.223*** (0.019)	0.224*** (0.019)
MBA	0.009 (0.006)	0.010* (0.006)	0.011** (0.006)	0.010* (0.006)
Foreign	0.003 (0.022)	0.004 (0.021)	0.003 (0.021)	0.003 (0.022)
Top 25 College	0.011* (0.006)	0.012** (0.006)	0.012* (0.006)	0.011* (0.006)
Time dummies	Yes	Yes	Yes	Yes
Observations	41,305	41,305	41,305	41,305
R-Squared	0.300	0.300	0.300	0.300

Table 4: Fund Performance by Economic Conditions at College Graduation of Fund Manager: Different Factor Models

This table presents the CAPM and the Fama-French Alphas of mutual funds with managers who graduated from college in different economic environments.

	Economic Conditions at Fund Manager Graduation							
	NBER Booms		Fund Flows		Consumer Sentiment		National Activity	
	CAPM	Fama-French	CAPM	Fama-French	CAPM	Fama-French	CAPM	Fama-French
Econ. Cond.	-0.019*	-0.014	0.003	-0.020**	-0.017*	-0.016	-0.016	-0.013
	(0.011)	(0.010)	(0.012)	(0.010)	(0.010)	(0.008)	(0.012)	(0.009)
Prior Alpha	0.789***	0.754***	0.790***	0.754***	0.790***	0.754***	0.790***	0.754***
	(0.013)	(0.017)	(0.013)	(0.017)	(0.013)	(0.017)	(0.013)	(0.017)
Fund Std.Dev.	-0.159***	-0.063	-0.159***	-0.063	-0.159***	-0.064	-0.159***	-0.064
	(0.032)	(0.047)	(0.032)	(0.047)	(0.032)	(0.047)	(0.032)	(0.047)
LOG(TNA)	-0.008***	-0.005	-0.008***	-0.005	-0.009***	-0.005	-0.008***	-0.005
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Expenses	-2.968***	-1.649	-2.948***	-1.626	-2.965***	-1.663	-2.976***	-1.659
	(1.122)	(0.834)	(1.132)	(0.841)	(1.129)	(0.840)	(1.131)	(0.837)
Turnover	-0.015***	-0.016	-0.015***	-0.016	-0.015***	-0.016	-0.015***	-0.016
	(0.005)	(0.004)	(0.005)	(0.004)	(0.005)	(0.004)	(0.005)	(0.004)
Load	-0.069	-0.005	-0.076	-0.006	-0.081	-0.059	-0.065	-0.044
	(0.141)	(0.117)	(0.142)	(0.116)	(0.141)	(0.116)	(0.141)	(0.117)
LOG(Tenure)	0.002	0.001	0.003	0.000	0.003	0.001	0.002	0.001
	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)
LOG(Age)	0.012***	0.003	0.012***	0.003	0.012***	0.003	0.012***	0.003
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
LOG(Experience)	0.001	-0.008	0.005	-0.010	0.003	-0.007	0.002	-0.008
	(0.008)	(0.006)	(0.008)	(0.006)	(0.008)	(0.006)	(0.008)	(0.006)
Flows	0.003***	0.002***	0.003***	0.002***	0.003***	0.002***	0.003***	0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Team	0.002	0.003	0.002	0.004	0.002	0.003	0.003	0.003
	(0.009)	(0.007)	(0.009)	(0.006)	(0.009)	(0.007)	(0.009)	(0.007)
Star	0.247***	0.228***	0.247***	0.227***	0.246***	0.227***	0.247***	0.228***
	(0.022)	(0.021)	(0.021)	(0.021)	(0.022)	(0.021)	(0.022)	(0.021)
MBA	-0.001	0.009	0.000	0.009*	0.001	0.011*	0.000	0.009*
	(0.007)	(0.006)	(0.007)	(0.006)	(0.007)	(0.005)	(0.007)	(0.006)
Foreign	0.011	0.002	0.012	0.003	0.012	0.002	0.012	0.002
	(0.019)	(0.019)	(0.020)	(0.018)	(0.020)	(0.018)	(0.019)	(0.019)
Top 25 College	0.004	0.009	0.004	0.011	0.005	0.010	0.004	0.010
	(0.008)	(0.006)	(0.008)	(0.006)	(0.008)	(0.006)	(0.008)	(0.006)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	41,305	41,305	41,305	41,305	41,305	41,305	41,305	41,305
R-Squared	0.396	0.323	0.396	0.323	0.396	0.323	0.396	0.323

Table 5: Fund Performance by Economic Conditions at College Graduation of Fund Manager: Different Time Exclusions

This table presents the Fama-French-Carhart Alphas of mutual funds with managers who graduated from college in different economic environments.

	Economic Conditions at Fund Manager Graduation							
	NBER Booms		Fund Flows		Consumer Sentiment		National Activity	
	Exclude First		Exclude First		Exclude First		Exclude First	
	5 Years	10 Years	5 Years	10 Years	5 Years	10 Years	5 Years	10 Years
Econ. Cond.	-0.021** (0.010)	-0.022** (0.011)	-0.021** (0.011)	-0.021* (0.011)	-0.019** (0.008)	-0.021** (0.008)	-0.018** (0.009)	-0.018* (0.010)
Prior Alpha	0.737*** (0.015)	0.735*** (0.014)	0.738*** (0.015)	0.736*** (0.015)	0.739*** (0.015)	0.735*** (0.015)	0.738*** (0.015)	0.735*** (0.015)
Fund Std.Dev.	-0.083* (0.045)	-0.054 (0.050)	-0.083* (0.045)	-0.054 (0.050)	-0.084* (0.045)	-0.055 (0.050)	-0.083* (0.045)	-0.054 (0.050)
LOG(TNA)	-0.007*** (0.002)	-0.008*** (0.002)	-0.007*** (0.002)	-0.008*** (0.002)	-0.007*** (0.002)	-0.008*** (0.002)	-0.007*** (0.002)	-0.008*** (0.002)
Expenses	-2.292** (0.916)	-2.701*** (1.040)	-2.256** (0.927)	-2.653** (1.056)	-2.369** (0.929)	-2.680** (1.063)	-2.306** (0.921)	-2.718*** (1.045)
Turnover	-0.022*** (0.004)	-0.024*** (0.004)	-0.022*** (0.004)	-0.024*** (0.004)	-0.021*** (0.004)	-0.024*** (0.004)	-0.022*** (0.004)	-0.024*** (0.004)
Load	-0.057 (0.121)	0.009 (0.133)	-0.074 (0.120)	-0.007 (0.132)	-0.076 (0.120)	-0.007 (0.133)	-0.052 (0.122)	0.011 (0.134)
LOG(Tenure)	0.004 (0.003)	0.005 (0.004)	0.003 (0.003)	0.004 (0.004)	0.004 (0.003)	0.005 (0.004)	0.004 (0.003)	0.005 (0.004)
LOG(Age)	0.005 (0.004)	0.007 (0.004)	0.005 (0.004)	0.008* (0.004)	0.005 (0.004)	0.008* (0.004)	0.005 (0.004)	0.008* (0.004)
LOG(Experience)	0.000 (0.007)	0.004 (0.009)	-0.002 (0.007)	0.003 (0.009)	-0.001 (0.007)	0.006 (0.009)	0.000 (0.007)	0.005 (0.009)
Flows	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)
Team	-0.002 (0.006)	0.000 (0.007)	0.000 (0.006)	0.002 (0.007)	-0.001 (0.006)	0.001 (0.007)	-0.002 (0.006)	0.001 (0.007)
Star	0.226*** (0.019)	0.217*** (0.021)	0.226*** (0.019)	0.217*** (0.021)	0.225*** (0.019)	0.217*** (0.021)	0.227*** (0.019)	0.217*** (0.021)
MBA	0.009 (0.006)	0.010* (0.006)	0.009* (0.006)	0.011* (0.006)	0.010* (0.006)	0.013** (0.006)	0.009 (0.006)	0.011* (0.006)
Foreign	0.003 (0.022)	0.002 (0.023)	0.004 (0.021)	0.003 (0.022)	0.003 (0.021)	0.003 (0.022)	0.003 (0.022)	0.003 (0.023)
Top 25 College	0.011* (0.006)	0.010 (0.007)	0.012* (0.006)	0.012* (0.007)	0.011* (0.006)	0.012* (0.007)	0.011* (0.006)	0.011 (0.007)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	41,057	37,548	41,057	37,548	41,319	37,548	41,057	37,548
R-Squared	0.297	0.292	0.297	0.292	0.298	0.292	0.297	0.292

Table 6: Fund Performance by Economic Conditions at College Graduation of Fund Manager: Different Subperiods

This table presents the Fama-French-Carhart Alphas of mutual funds with managers who graduated from college in different economic environments.

	Economic Conditions at Fund Manager Graduation							
	NBER Booms		Fund Flows		Consumer Sentiment		National Activity	
	1990- 1999	2000- 2011	1990- 1999	2000- 2011	1990- 1999	2000- 2011	1990- 1999	2000- 2011
Econ. Cond.	-0.001 (0.012)	-0.024* (0.014)	-0.005 (0.012)	-0.028* (0.016)	-0.008 (0.008)	-0.025* (0.013)	-0.001 (0.012)	-0.022* (0.013)
Prior Alpha	0.858*** (0.010)	0.677*** (0.020)	0.858*** (0.010)	0.678*** (0.020)	0.858*** (0.010)	0.678*** (0.020)	0.858*** (0.010)	0.677*** (0.020)
Fund Std.Dev.	-0.123 (0.256)	-0.080* (0.044)	-0.124 (0.257)	-0.080* (0.043)	-0.125 (0.256)	-0.082* (0.044)	-0.123 (0.256)	-0.081* (0.044)
LOG(TNA)	-0.009*** (0.002)	-0.006** (0.003)	-0.009*** (0.002)	-0.005** (0.003)	-0.009*** (0.002)	-0.006** (0.003)	-0.009*** (0.002)	-0.005** (0.003)
Expenses	-3.655*** (1.198)	-1.200 (1.360)	-3.650*** (1.206)	-1.041 (1.370)	-3.650*** (1.189)	-1.112 (1.375)	-3.658*** (1.203)	-1.166 (1.358)
Turnover	-0.011 (0.008)	-0.026*** (0.005)	-0.011 (0.008)	-0.025*** (0.005)	-0.011 (0.008)	-0.025*** (0.005)	-0.011 (0.008)	-0.026*** (0.005)
Load	-0.150 (0.137)	0.039 (0.205)	-0.158 (0.140)	0.032 (0.202)	-0.162 (0.137)	0.027 (0.203)	-0.150 (0.137)	0.036 (0.205)
LOG(Tenure)	0.003 (0.004)	0.005 (0.005)	0.003 (0.004)	0.004 (0.005)	0.003 (0.004)	0.005 (0.005)	0.003 (0.004)	0.005 (0.005)
LOG(Age)	0.011*** (0.004)	0.005 (0.005)	0.011*** (0.004)	0.006 (0.005)	0.012*** (0.004)	0.005 (0.005)	0.011*** (0.004)	0.005 (0.005)
LOG(Experience)	-0.005 (0.007)	0.006 (0.012)	-0.006 (0.007)	0.003 (0.012)	-0.005 (0.007)	0.009 (0.011)	-0.005 (0.007)	0.007 (0.012)
Flows	0.002*** (0.000)	0.002*** (0.001)	0.002*** (0.000)	0.002*** (0.001)	0.002*** (0.000)	0.002*** (0.001)	0.002*** (0.000)	0.002*** (0.001)
Team	-0.015 (0.009)	0.006 (0.008)	-0.014 (0.009)	0.009 (0.008)	-0.015 (0.009)	0.006 (0.009)	-0.015 (0.009)	0.007 (0.008)
Star	0.227*** (0.018)	0.225*** (0.028)	0.227*** (0.018)	0.224*** (0.028)	0.227*** (0.018)	0.224*** (0.028)	0.227*** (0.018)	0.225*** (0.028)
MBA	0.014* (0.007)	0.004 (0.008)	0.014* (0.007)	0.005 (0.008)	0.014* (0.007)	0.007 (0.008)	0.014* (0.007)	0.004 (0.008)
Foreign	-0.010 (0.021)	0.001 (0.031)	-0.010 (0.021)	0.005 (0.029)	-0.010 (0.021)	0.004 (0.030)	-0.011 (0.021)	0.003 (0.031)
Top 25 College	0.004 (0.007)	0.013 (0.009)	0.004 (0.007)	0.014 (0.009)	0.003 (0.007)	0.015* (0.009)	0.004 (0.007)	0.013 (0.009)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,631	26,674	14,631	26,674	14,631	26,674	14,631	26,674
R-Squared	0.783	0.215	0.783	0.215	0.783	0.215	0.783	0.215

Table 7: **Fund Performance by Economic Conditions at College Graduation of Fund Manager: Different Horizons for Economic Conditions**

This table presents the Fama-French-Carhart Alphas of mutual funds with managers who graduated from college in different economic environments.

	Economic Conditions at Fund Manager Graduation							
	NBER Booms		Fund Flows		Consumer Sentiment		National Activity	
	6 Mths	24 Mths	6 Mths	24 Mths	6 Mths	24 Mths	6 Mths	24 Mths
Econ. Cond.	-0.024*** (0.008)	-0.008 (0.019)	-0.020** (0.009)	-0.037** (0.016)	-0.001 (0.010)	-0.022* (0.012)	-0.020** (0.008)	-0.014 (0.013)
Prior Alpha	0.738*** (0.015)	0.655*** (0.014)	0.739*** (0.015)	0.656*** (0.014)	0.739*** (0.015)	0.656*** (0.014)	0.739*** (0.015)	0.655*** (0.014)
Fund Std.Dev.	-0.083* (0.045)	-0.107* (0.058)	-0.082* (0.045)	-0.106* (0.058)	-0.083* (0.045)	-0.107* (0.059)	-0.083* (0.045)	-0.107* (0.059)
LOG(TNA)	-0.007*** (0.002)	-0.010*** (0.003)	-0.007*** (0.002)	-0.011*** (0.003)	-0.007*** (0.002)	-0.011*** (0.003)	-0.007*** (0.002)	-0.010*** (0.003)
Expenses	-2.308*** (0.874)	-2.872** (1.201)	-2.290*** (0.884)	-2.887** (1.204)	-2.273*** (0.876)	-2.937** (1.213)	-2.338*** (0.884)	-2.902** (1.207)
Turnover	-0.022*** (0.004)	-0.033*** (0.006)	-0.022*** (0.004)	-0.032*** (0.006)	-0.022*** (0.004)	-0.032*** (0.006)	-0.022*** (0.004)	-0.033*** (0.006)
Load	-0.063 (0.119)	-0.101 (0.169)	-0.075 (0.119)	-0.116 (0.166)	-0.070 (0.120)	-0.096 (0.168)	-0.063 (0.120)	-0.096 (0.169)
LOG(Tenure)	0.002 (0.003)	0.007 (0.004)	0.003 (0.003)	0.003 (0.005)	0.004 (0.003)	0.007* (0.004)	0.003 (0.003)	0.006 (0.004)
LOG(Age)	0.004 (0.004)	0.011** (0.005)	0.005 (0.004)	0.011** (0.005)	0.005 (0.004)	0.012** (0.005)	0.005 (0.004)	0.011** (0.005)
LOG(Experience)	-0.005 (0.006)	-0.003 (0.010)	-0.003 (0.007)	-0.011 (0.010)	0.001 (0.007)	-0.002 (0.010)	-0.002 (0.007)	-0.003 (0.010)
Flows	0.002*** (0.001)	0.004*** (0.001)	0.002*** (0.001)	0.004*** (0.001)	0.002*** (0.001)	0.004*** (0.001)	0.002*** (0.001)	0.004*** (0.001)
Team	0.000 (0.006)	-0.001 (0.009)	0.002 (0.006)	0.002 (0.009)	0.000 (0.006)	-0.001 (0.009)	0.001 (0.006)	-0.001 (0.009)
Star	0.223*** (0.019)	0.336*** (0.028)	0.223*** (0.019)	0.336*** (0.028)	0.224*** (0.019)	0.335*** (0.028)	0.223*** (0.019)	0.336*** (0.028)
MBA	0.010* (0.006)	0.013 (0.008)	0.009* (0.006)	0.013 (0.008)	0.010* (0.006)	0.015* (0.008)	0.010* (0.006)	0.013* (0.008)
Foreign	0.004 (0.021)	0.014 (0.031)	0.003 (0.021)	0.016 (0.030)	0.003 (0.021)	0.013 (0.030)	0.003 (0.021)	0.015 (0.031)
Top 25 College	0.011* (0.006)	0.014* (0.008)	0.012** (0.006)	0.016* (0.008)	0.012* (0.006)	0.015* (0.008)	0.012* (0.006)	0.014* (0.008)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	41,305	41,319	41,305	41,319	41,305	41,319	41,305	41,319
R-Squared	0.300	0.255	0.300	0.255	0.300	0.255	0.300	0.255

Table 8: **Fund Risk Taking by Economic Conditions at College Graduation of Fund Manager**

This table presents the standard deviation and the CAPM betas for monthly returns of mutual funds with managers who graduated from college in different economic environments.

	Economic Conditions at Fund Manager Graduation							
	NBER Booms		Fund Flows		Consumer Sentiment		National Activity	
	Std.Dev.	Beta	Std.Dev.	Beta	Std.Dev.	Beta	Std.Dev.	Beta
Econ. Cond.	0.344*** (0.088)	4.125*** (1.567)	0.005 (0.084)	0.335 (1.472)	0.082 (0.068)	1.785 (1.198)	0.227*** (0.079)	3.400** (1.351)
Prior Alpha	0.231*** (0.089)	-5.501*** (1.074)	0.229** (0.090)	-5.513*** (1.082)	0.227** (0.090)	-5.565*** (1.080)	0.232** (0.090)	-5.474*** (1.074)
Fund Std.Dev.	0.627*** (0.078)	5.708*** (1.271)	0.630*** (0.081)	5.749*** (1.297)	0.630*** (0.080)	5.753*** (1.283)	0.629*** (0.079)	5.731*** (1.278)
LOG(TNA)	0.028* (0.016)	0.834*** (0.258)	0.028* (0.016)	0.835*** (0.263)	0.029* (0.016)	0.849*** (0.262)	0.028* (0.016)	0.836*** (0.261)
Expenses	0.269*** (0.084)	1.513 (1.411)	0.273*** (0.087)	1.556 (1.452)	0.273*** (0.086)	1.565 (1.443)	0.273*** (0.087)	1.558 (1.428)
Turnover	0.212*** (0.045)	2.407*** (0.688)	0.209*** (0.047)	2.371*** (0.708)	0.207*** (0.046)	2.324*** (0.693)	0.212*** (0.046)	2.407*** (0.696)
Load	-1.028 (0.912)	-28.618* (16.159)	-0.974 (0.941)	-27.879* (16.487)	-0.918 (0.926)	-26.743* (16.146)	-1.079 (0.930)	-29.539* (16.308)
LOG(Tenure)	-0.010 (0.022)	0.336 (0.398)	-0.031 (0.024)	0.114 (0.426)	-0.029 (0.023)	0.135 (0.401)	-0.017 (0.022)	0.296 (0.395)
LOG(Age)	-0.131*** (0.038)	-0.549 (0.678)	-0.139*** (0.041)	-0.645 (0.723)	-0.138*** (0.040)	-0.635 (0.713)	-0.136*** (0.040)	-0.609 (0.703)
LOG(Experience)	-0.149*** (0.052)	1.818* (0.966)	-0.198*** (0.065)	1.297 (1.172)	-0.193*** (0.058)	1.341 (1.093)	-0.165*** (0.055)	1.729* (1.001)
Flows	0.001 (0.004)	0.011 (0.068)	0.000 (0.004)	-0.003 (0.069)	0.000 (0.004)	0.000 (0.068)	0.000 (0.004)	0.006 (0.068)
Team	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Star	-0.390** (0.152)	-2.221 (2.318)	-0.382** (0.156)	-2.138 (2.365)	-0.383** (0.156)	-2.157 (2.366)	-0.396** (0.154)	-2.337 (2.358)
MBA	0.048 (0.041)	1.704** (0.766)	0.029 (0.042)	1.471* (0.780)	0.025 (0.042)	1.396* (0.779)	0.036 (0.041)	1.570** (0.771)
Foreign	-0.061 (0.181)	-0.391 (3.147)	-0.062 (0.181)	-0.410 (3.203)	-0.064 (0.180)	-0.454 (3.245)	-0.077 (0.181)	-0.619 (3.182)
Top 25 College	-0.060 (0.046)	-0.832 (0.890)	-0.074 (0.049)	-1.011 (0.908)	-0.074 (0.048)	-0.997 (0.890)	-0.072 (0.047)	-0.968 (0.885)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271
R-Squared	0.872	0.413	0.869	0.408	0.87	0.409	0.87	0.411

Table 9: **Fund Performance by Economic Conditions at First Employment of Fund Manager**

This table presents the CAPM and the Fama-French-Carhart Alphas of mutual funds with managers who were first employed as a fund manager in different economic environments.

Panel A: More than 5 Years After Graduation								
	CAPM Alphas				Fama-French-Carhart Alphas			
	Low	Mid	High	High-Low	Low	Mid	High	High-Low
NBER Recession	-0.022		-0.043	-0.021 (0.022)	-0.044		-0.060	-0.016 (0.014)
Fund Flows	0.052	-0.040	-0.103	-0.155*** (0.019)	0.010	-0.061	-0.094	-0.104*** (0.012)
Consumer Sentiment	-0.054	-0.046	-0.008	0.046 (0.030)	-0.008	-0.069	-0.035	-0.027 (0.025)
National Activity	-0.086	-0.037	-0.030	0.056*** (0.019)	-0.082	-0.069	-0.024	0.058*** (0.017)

Panel B: More than 10 Years After Graduation								
	CAPM Alphas				Fama-French-Carhart Alphas			
	Low	Mid	High	High-Low	Low	Mid	High	High-Low
NBER Recession	0.048		-0.055	-0.104*** (0.037)	-0.027		-0.102	-0.075*** (0.022)
Fund Flows	0.107	-0.011	-0.179	-0.286*** (0.050)	0.048	-0.073	-0.205	-0.253*** (0.030)
Consumer Sentiment	-0.118	-0.029	-0.030	0.088**	-0.140	-0.077	-0.101	0.039 (0.033)
National Activity	-0.070	-0.022	-0.045	0.025 (0.031)	-0.094	-0.092	-0.078	0.016 (0.022)

Panel C: More than 15 Years After Graduation								
	CAPM Alphas				Fama-French-Carhart Alphas			
	Low	Mid	High	High-Low	Low	Mid	High	High-Low
NBER Recession	0.028		-0.021	-0.049 (0.077)	-0.012		-0.118	-0.106** (0.047)
Fund Flows	-0.004	0.050	-0.112	-0.108 (0.132)	0.000	-0.080	-0.178	-0.178** (0.080)
Consumer Sentiment	-0.012	-0.049	0.055	0.067 (0.129)	-0.094	-0.128	-0.028	0.066 (0.097)
National Activity	-0.082	0.112	-0.001	0.081 (0.056)	-0.031	-0.104	-0.086	-0.055 (0.045)

Table 10: **Fund Performance by Economic Conditions at First Employment of Fund Manager**

This table presents the CAPM and the Fama-French-Carhart Alphas of mutual funds with managers who were first employed as a fund manager in different economic environments.

	Economic Conditions at First Employment of Fund Manager							
	NBER Booms		Fund Flows		Consumer Sentiment		National Activity	
	CAPM	Carhart	CAPM	Carhart	CAPM	Carhart	CAPM	Carhart
Econ. Cond.	-0.017** (0.007)	-0.015** (0.006)	-0.027*** (0.009)	-0.014** (0.007)	0.000 (0.007)	-0.007 (0.006)	-0.024*** (0.008)	-0.022*** (0.007)
Prior Alpha	0.818*** (0.008)	0.774*** (0.010)	0.818*** (0.008)	0.774*** (0.010)	0.818*** (0.008)	0.774*** (0.010)	0.818*** (0.008)	0.774*** (0.010)
Fund Std.Dev.	-19.602*** (3.181)	-0.156*** (0.044)	-19.616*** (3.174)	-0.156*** (0.044)	-19.645*** (3.191)	-0.157*** (0.044)	-19.609*** (3.189)	-0.156*** (0.044)
LOG(TNA)	-0.005*** (0.002)	-0.004*** (0.001)	-0.005*** (0.002)	-0.004*** (0.001)	-0.005*** (0.002)	-0.004*** (0.001)	-0.005*** (0.002)	-0.004*** (0.001)
Expenses	-1.505* (0.773)	-1.376** (0.569)	-1.476* (0.797)	-1.381** (0.582)	-1.557** (0.778)	-1.441** (0.573)	-1.540** (0.760)	-1.409** (0.560)
Turnover	-0.010** (0.004)	-0.014*** (0.003)	-0.010** (0.004)	-0.014*** (0.003)	-0.010** (0.004)	-0.014*** (0.003)	-0.010** (0.004)	-0.015*** (0.003)
Load	-0.119 (0.083)	-0.066 (0.068)	-0.125 (0.083)	-0.069 (0.068)	-0.120 (0.083)	-0.066 (0.068)	-0.123 (0.083)	-0.069 (0.068)
LOG(Tenure)	0.003 (0.003)	0.003 (0.002)	0.003 (0.003)	0.003 (0.002)	0.002 (0.003)	0.003 (0.002)	0.003 (0.003)	0.003 (0.002)
LOG(Age)	0.006** (0.003)	0.000 (0.003)	0.006** (0.003)	-0.001 (0.003)	0.005* (0.003)	-0.001 (0.003)	0.006** (0.003)	0.000 (0.003)
LOG(Experience)	0.002 (0.005)	-0.003 (0.004)	0.002 (0.005)	-0.003 (0.004)	0.002 (0.005)	-0.003 (0.004)	0.002 (0.005)	-0.003 (0.004)
Flows	0.004*** (0.000)	0.003*** (0.000)	0.004*** (0.000)	0.003*** (0.000)	0.004*** (0.000)	0.003*** (0.000)	0.004*** (0.000)	0.003*** (0.000)
Team	0.002 (0.005)	-0.002 (0.004)	0.001 (0.005)	-0.002 (0.004)	0.001 (0.005)	-0.002 (0.004)	0.002 (0.005)	-0.002 (0.004)
Star	0.260*** (0.015)	0.213*** (0.013)	0.260*** (0.015)	0.213*** (0.013)	0.260*** (0.015)	0.213*** (0.013)	0.260*** (0.015)	0.213*** (0.013)
MBA	0.000 (0.005)	0.006* (0.004)	0.000 (0.005)	0.007* (0.004)	0.000 (0.005)	0.007* (0.004)	0.000 (0.005)	0.007* (0.004)
Foreign	-0.015 (0.017)	-0.018 (0.014)	-0.014 (0.017)	-0.018 (0.013)	-0.017 (0.017)	-0.019 (0.014)	-0.015 (0.018)	-0.017 (0.014)
Top 25 College	0.006 (0.005)	0.012*** (0.004)	0.005 (0.005)	0.012*** (0.004)	0.006 (0.005)	0.012*** (0.004)	0.006 (0.005)	0.012*** (0.004)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	82,586	82,586	82,586	82,586	82,586	82,586	82,586	82,586
R-Squared	0.445	0.364	0.445	0.364	0.445	0.364	0.445	0.365

Table 11: Fund Performance by Economic Conditions at First Employment of Fund Manager: Different Subperiods

This table presents the CAPM and the Fama-French-Carhart Alphas of mutual funds with managers who were first employed as a fund manager in different economic environments.

	Economic Conditions at First Employment of Fund Manager							
	NBER Booms		Fund Flows		Consumer Sentiment		National Activity	
	1990- 1999	2000- 2011	1990- 1999	2000- 2011	1990- 1999	2000- 2011	1990- 1999	2000- 2011
Econ. Cond.	-0.012 (0.007)	-0.016* (0.009)	-0.006 (0.007)	-0.030** (0.015)	-0.006 (0.008)	-0.005 (0.010)	-0.012* (0.007)	-0.026** (0.012)
Prior Alpha	0.865*** (0.006)	0.702*** (0.018)	0.865*** (0.006)	0.702*** (0.018)	0.864*** (0.006)	0.702*** (0.018)	0.864*** (0.006)	0.702*** (0.018)
Fund Std.Dev.	-0.308 (0.208)	-0.144*** (0.046)	-0.310 (0.208)	-0.144*** (0.046)	-0.311 (0.209)	-0.145*** (0.046)	-0.309 (0.209)	-0.144*** (0.047)
LOG(TNA)	-0.006*** (0.001)	-0.003 (0.002)	-0.006*** (0.001)	-0.003 (0.002)	-0.006*** (0.001)	-0.003 (0.002)	-0.006*** (0.001)	-0.003 (0.002)
Expenses	-1.556 (0.971)	-1.118* (0.666)	-1.565 (0.974)	-1.052 (0.684)	-1.589 (0.966)	-1.194* (0.677)	-1.582 (0.971)	-1.136* (0.661)
Turnover	-0.006 (0.006)	-0.021*** (0.004)	-0.006 (0.006)	-0.021*** (0.004)	-0.006 (0.006)	-0.020*** (0.004)	-0.006 (0.006)	-0.021*** (0.004)
Load	-0.127* (0.075)	0.000 (0.143)	-0.128* (0.075)	-0.007 (0.144)	-0.126* (0.075)	0.000 (0.144)	-0.128* (0.075)	-0.003 (0.143)
LOG(Tenure)	0.001 (0.002)	0.006* (0.003)	0.001 (0.002)	0.006* (0.003)	0.001 (0.003)	0.005 (0.003)	0.001 (0.002)	0.006* (0.003)
LOG(Age)	0.006** (0.002)	-0.004 (0.004)	0.006** (0.002)	-0.003 (0.004)	0.006** (0.002)	-0.004 (0.004)	0.006** (0.002)	-0.003 (0.004)
LOG(Experience)	-0.003 (0.003)	0.000 (0.008)	-0.003 (0.003)	0.001 (0.008)	-0.003 (0.003)	0.001 (0.007)	-0.003 (0.004)	0.001 (0.007)
Flows	0.002*** (0.000)	0.003*** (0.001)	0.002*** (0.000)	0.003*** (0.001)	0.002*** (0.000)	0.003*** (0.001)	0.002*** (0.000)	0.003*** (0.001)
Team	-0.007 (0.004)	0.002 (0.006)	-0.007 (0.004)	0.001 (0.006)	-0.007 (0.004)	0.001 (0.006)	-0.007 (0.004)	0.002 (0.006)
Star	0.221*** (0.011)	0.209*** (0.022)	0.221*** (0.011)	0.209*** (0.022)	0.221*** (0.011)	0.209*** (0.022)	0.221*** (0.011)	0.209*** (0.022)
MBA	0.003 (0.004)	0.007 (0.007)	0.004 (0.004)	0.007 (0.007)	0.004 (0.004)	0.007 (0.006)	0.004 (0.004)	0.007 (0.007)
Foreign	0.000 (0.014)	-0.031 (0.023)	-0.001 (0.014)	-0.029 (0.023)	-0.001 (0.014)	-0.031 (0.023)	0.000 (0.014)	-0.032 (0.023)
Top 25 College	0.008** (0.004)	0.014** (0.006)	0.008** (0.004)	0.014** (0.006)	0.008** (0.004)	0.014** (0.006)	0.008** (0.004)	0.014** (0.006)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	42,447	40,139	42,447	40,139	42,447	40,139	42,447	40,139
R-Squared	0.794	0.236	0.794	0.236	0.794	0.236	0.794	0.236

Table 12: **Fund Performance by Economic Conditions at First Employment of Fund Manager: Different Horizons for Economic Conditions**

This table presents the CAPM and the Fama-French-Carhart Alphas of mutual funds with managers who were first employed as a fund manager in different economic environments.

	Economic Conditions at First Employment of Fund Manager							
	NBER Booms		Fund Flows		Consumer Sentiment		National Activity	
	6 Mths	24 Mths	6 Mths	24 Mths	6 Mths	24 Mths	6 Mths	24 Mths
Econ. Cond.	-0.013** (0.006)	-0.041*** (0.012)	-0.008 (0.007)	-0.024** (0.010)	0.002 (0.007)	-0.019** (0.009)	-0.021*** (0.007)	-0.035*** (0.010)
Prior Alpha	0.774*** (0.010)	0.684*** (0.010)	0.775*** (0.010)	0.684*** (0.010)	0.775*** (0.010)	0.684*** (0.010)	0.774*** (0.010)	0.684*** (0.010)
Fund Std.Dev.	-0.156*** (0.044)	-0.199*** (0.052)	-0.157*** (0.044)	-0.200*** (0.052)	-0.157*** (0.044)	-0.200*** (0.052)	-0.156*** (0.044)	-0.198*** (0.052)
LOG(TNA)	-0.004*** (0.001)	-0.007*** (0.002)	-0.004*** (0.001)	-0.007*** (0.002)	-0.004*** (0.001)	-0.007*** (0.002)	-0.004*** (0.001)	-0.007*** (0.002)
Expenses	-1.388** (0.571)	-2.227*** (0.686)	-1.397** (0.575)	-2.195*** (0.696)	-1.415** (0.572)	-2.220*** (0.704)	-1.424** (0.560)	-2.266*** (0.689)
Turnover	-0.014*** (0.003)	-0.019*** (0.005)	-0.014*** (0.003)	-0.019*** (0.005)	-0.014*** (0.003)	-0.019*** (0.005)	-0.015*** (0.003)	-0.019*** (0.005)
Load	-0.066 (0.068)	-0.119 (0.101)	-0.067 (0.068)	-0.135 (0.101)	-0.066 (0.068)	-0.131 (0.101)	-0.066 (0.067)	-0.121 (0.101)
LOG(Tenure)	0.003 (0.002)	0.007** (0.003)	0.003 (0.002)	0.007** (0.003)	0.002 (0.002)	0.007** (0.003)	0.003 (0.002)	0.007** (0.003)
LOG(Age)	0.000 (0.003)	0.002 (0.003)	-0.001 (0.003)	0.003 (0.003)	-0.001 (0.003)	0.002 (0.003)	0.000 (0.003)	0.002 (0.003)
LOG(Experience)	-0.003 (0.004)	-0.006 (0.005)	-0.003 (0.004)	-0.005 (0.005)	-0.003 (0.004)	-0.005 (0.005)	-0.003 (0.004)	-0.005 (0.005)
Flows	0.003*** (0.000)	0.004*** (0.000)	0.003*** (0.000)	0.004*** (0.000)	0.003*** (0.000)	0.004*** (0.000)	0.003*** (0.000)	0.004*** (0.000)
Team	-0.002 (0.004)	-0.005 (0.006)	-0.002 (0.004)	-0.005 (0.006)	-0.002 (0.004)	-0.005 (0.006)	-0.002 (0.004)	-0.004 (0.006)
Star	0.213*** (0.013)	0.318*** (0.019)	0.213*** (0.013)	0.318*** (0.019)	0.214*** (0.013)	0.318*** (0.019)	0.214*** (0.013)	0.318*** (0.019)
MBA	0.006* (0.004)	0.010* (0.005)	0.007* (0.004)	0.009* (0.005)	0.007* (0.004)	0.009* (0.005)	0.006* (0.004)	0.009* (0.005)
Foreign	-0.018 (0.014)	-0.017 (0.018)	-0.019 (0.014)	-0.019 (0.018)	-0.019 (0.014)	-0.018 (0.018)	-0.017 (0.014)	-0.018 (0.018)
Top 25 College	0.012*** (0.004)	0.016*** (0.005)	0.012*** (0.004)	0.015*** (0.005)	0.012*** (0.004)	0.016*** (0.005)	0.012*** (0.004)	0.015*** (0.005)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	82,586	82,610	82,586	82,610	82,586	82,610	82,586	82,610
R-Squared	0.364	0.308	0.364	0.308	0.364	0.308	0.365	0.308