Work Experience and Managerial Performance: Evidence from Mutual Fund Managers

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ABSTRACT

Work experience is a key factor in hiring decision of managers. In investment, prior working experiences affect managers comparative advantage and therefore their style and performance. Using a sample of Chinese fund managers, we find styles and performances vary across managers of different career backgrounds. Notably, managers of research and especially government backgrounds show higher risk adjusted returns while taking on less systematic risk. Further analyses on holdings characteristics suggest that they possess information advantage through prior work experience. In contrast, managers with experience in other investments generate high raw returns largely by holding more systematic risk and chase momentum. These effects persist even after controlling for both fund and time fixed effects. Overall, we provide evidence that work experience matters for management style and performance.

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Human capital in management is one of the key factors by which enterprises obtain and maintain their competitive advantage (Hambrick and Mason (1984)). Formation of human capital is a cumulative process. Managers do not gain their expertise just by sitting in MBA classes. Knowledge and speciality accumulated along career paths contribute ultimately to managerial performances. In practice, a lot of emphases are put on work experiences in hiring decisions. However, empirical evidence that work experience matters is very limited. \(^1\)

Then, there is the question of management styles. For example, investment principles advocated around MBA classrooms are more or less the same, but fund managers’ investing styles differ, even within a fund style category. Little is known about how work experience shapes manager’s management style. This paper aims to fill in the gap.

We provide evidence of the effect of work experience on managerial performance and management style by examining the connection between work experiences of mutual fund managers prior to their fund management career and their fund management performances and styles. Mutual fund is a good setting to test the effect of work experience on managerial performance and style. Since fund manager is the most important factor in fund management, manager performance and style can be measured relatively easily, and can be attributed to individual characteristics relatively cleanly. Studying of fund managers can also provide some insight on how the effect of work experience on management style and managerial performance are inter-correlated. Fund managers use their “edge” in seeking abnormal returns (e.g., geographical proximity (Coval and Moskowitz (2001))). They incorporate the “edges” they accumulate along their career path into their managing styles. For example, years spent in research department can bring understandings of specific industries. Their portfolios are likely to tilt toward these industries. Indeed, Kacperczyk, Sialm, and Zheng (2005) find that managers whose holdings are more industry-concentrated perform better. Connections established in previous career may help gaining information advantages in specific firms (Cohen, Frazzini, and Malloy (2008), Tang (2013)). These managers tend to hold less diversified portfolio. Skill honed in other career paths may lead to better
understandings of risk factors, which contribute to better market timing.

We address the research questions using data on Chinese mutual funds. Chinese mutual fund data provides us with several advantages. The fund industry in China has gone through a rapid expansion period since 2003. As a result, mutual funds in China do not always have the luxury of nurturing their own talent through in-house training and laddering. Whereas typical career path of a mutual fund manager in the U.S. starts from junior research analyst position after getting a MBA or CFA, Chinese funds find asset management talent from a varieties of backgrounds. The most significant career position of a Chinese fund manager prior to their fund managing career could be as diverse as, for example, divisional manager of a bank, or government official of the security regulatory body. Chinese mutual fund data also presents no survivorship bias, since no fund in our sample ceases operation.

From a sample of Chinese fund managers, we manually classify each segment of a manager’s entire career path into four categories: government, investment, research, and banking. We then examine the impact of primary career background, which is defined according to the level of the position and the tenure a manager stays in, as well as the impact of individual career background in a multiple-career path, on fund performance and investment style.

We find that fund performances differ across work experiences. Fund managers with banking as primary career background significantly underperform in all performance measures, while managers with government background exhibit the best risk-adjusted abnormal returns. Within the three better performing groups, government and research, two groups whose career paths seem likely to accumulate information advantages, improve their relative performance standing once risk-factors are controlled for; while the outperformance of managers of investment background largely disappears. These return differences are robust to controlling for fund characteristics including fund size, fund age and expense ratios, and manager characteristics such as manager age, tenure, and education. Separating out
individual career background in a multiple-background career path, we can view overall effect of a career path as accumulative effect of each career segment. This approach leads us to similar findings regarding performance differences, confirming that our findings are not subject to the particularity in classifying primary career backgrounds.

We then investigate how career paths influence fund managers’ investment styles. We investigate the issue using factor loadings in excess of the median in the respective self-reported fund styles [Wermers (2000)]. We therefore address the concern that managers of different career background might be chosen to run funds of matching styles.

We find consistent patterns whether we group fund managers according to their primary or individual career background. Benchmarking against managers of the banking background, we find that managers of investment background take significantly more market return risk and incline to a momentum strategy, while managers of research and especially government background load on significantly less market risk. The latter two groups are also more likely to be contrarian. Uniquely, managers of banking background prefers to invest in larger and value firms while the other groups prefer smaller glamor firms. Therefore, high return achieved by managers of investment background is mainly attributable to their greater holdings of systematic risk and momentum chasing. In contrast, managers of research, and especially government backgrounds seem to hold an informational advantage.

To further investigate the information advantage hypothesis, we examine stock holdings of career background groups. We study three measures: concentration ratio, which measures a portfolio’s degree of concentration in top holdings, contribution ratio, which measures the proportion of performance contributing stocks in a portfolio, and return gap (Kacperczyk, Sialm, and Zheng (2008)), which measures timeliness in trading with private information. Consistent with the information advantage hypothesis, we find that managers of government and research backgrounds hold portfolios with significantly higher concentration ratio. They have also higher contribution ratio and return gap. Interestingly, portfolios of managers of investment background appear to be more diversified even compared to those
of the banking background.

Our analyses show superior stock-picking by managers of research and government backgrounds, but do not reveal where the abilities are from. Their sources likely differ. It is plausible that work experience in stock research may better prepare a manager in finding and analyzing value-relevant firm information, or that she has accumulated knowledge of specific firms or industries, which leads to a more concentrated portfolio.² It is harder to picture how career in government bureaucracy translates to better stock-picking skills. They may, however, gain information advantage through their political connections. In an economy, such as China, where government influence is ubiquitous, political connection forms an informational network. A connected fund manager may, for example, learn of details of a government policy beforehand and figure out which firms it will benefit.

The continued employment of fund managers of banking background despite their poor performance seems puzzling. We provide a possible justification by investigating the effect of Chinese fund managers’ work experience on mutual fund new money flow growth. Fund managers of banking background show high ability to generate new money flow to the funds. They more than compensate for poorer performances than managers of investment and research backgrounds in attracting new money. Due to the dominance of banks in Chinese mutual fund sales channels, expertise and connections through their work experiences are valuable to mutual fund companies.

Our paper is related to several strands of the literature. A large literature has been developed in linking fund performances with fund manager characteristics. However, most of the current mutual fund research focuses on manager characteristics on education, the effect of work experience has never been studied. Chevalier and Ellison (1999a) studies education background of mutual fund manager and find that managers who attended higher SAT undergraduate institutions have systematically higher risk adjusted excess returns. Later studies incorporate manager characteristics such as sex (Atkinson, Baird, and Frye (2003)), quality of the MBA program attended (Gottesman and Morey (2006)) and tenure
Martijn, Cremers, and Petaisto (2009), Christoffersen and Sarkissian (2009). Li, Zhang, and Zhao (Forthcoming) link hedge fund managers characteristics such as education to hedge fund performances. They document that managers from higher-SAT institutes tend to have high returns and take less risks. Our study complements that literature. We are the first to study the effect of work experience on fund management.  

Under the broad debate of whether mutual fund managers possess stock-picking ability, an expending literature search for the source of information advantage managers may have. Coval and Moskowitz (2001) find mutual fund managers tilt holdings toward nearby companies, on which they earn a higher return, suggesting geographic proximity as a source of information advantage. Similarly, Christoffersen and Sarkissian (2009) instrument skill with city size. They find that funds run by experienced managers and located in financial centers perform better. Nanda, Wang, and Zheng (2004) provide evidence that fund families following more focused investment strategies across funds perform better, likely due to their informational advantages. Kacperczyk et al. (2005) and Tang (2013) suggest industry knowledge as a source. Cohen et al. (2008) suggest shared education networks between fund managers and board members as an informational channel. Our study adds to the list, it points to career experience as another channel of information advantage.

Another strand of literature, mostly in corporate finance, studies the connection between managers’ employment experience, and life experience in general, and management styles. Malmendier, Tate, and Yan (2011) find that CEOs who grew up during the Great Depression lean excessively on internal finance and CEOs with military experience pursue more aggressive leverage policy. Schoar and Zuo (2011) examine in addition how early career experiences affect a manager’s career path. Dittmar and Duchin (2013), similar to our paper, focus on the role of employment experience. They find that CEO’s prior employment experience affects corporate financial and corporate savings decisions. Our paper differs from these studies in that while these studies mostly document the effect of life experience on managerial styles, we study directly the effect of work experience on managerial expe-
rience. In a forthcoming article, Custodio and Metzger (Forthcoming) find that Firms that appoint CEOs with a career background in finance have distinctive corporate finance policies. They hold less cash and more debt, and engage in more share repurchases. We bring the perspective of career experience into mutual fund studies.

The rest of the paper is organized as follows. Section I briefly introduces the institutional background of Chinese mutual fund industry. Section II describes the data. Section III presents empirical analyses. Section IV provides robustness checks of our findings to alternative definition of career background and alternative estimation method. Section V investigates the effect of fund manager work experience on ability to attract new money flow. Section VI summarizes and concludes.

I. Background

In October 2000, China Security Regulatory Commission (CSRC) issued provisional regulations of open-end security investment funds. But the first open-end mutual fund, Hua’an Fund, did not appear until September 2001. Since then, Chinese mutual fund industry has gone through a period of rapid growth. Number of funds grew from a humble 17 in 2002 to more than 860 funds under 69 fund management companies by the end of 2011, with RMB2.17 trillion under management (all fund types). To facilitate development of the industry, foreign firms are allowed to set up joint-venture management companies, which help popularized standard fund management practices. Figure 1 charts total asset under management (AUM) and number of funds of actively managed Chinese mutual funds from year 2002 to 2011. AUM peaks in 2008 with about RMB1.7 Trillion, tapering off after the hit in 2009 following Global Financial Crisis. However, total number of funds continues to rise. It increases from 7 in 2002 to 369 in 2011.

The rapid expansion poses a challenging question to fund management companies in finding qualified fund managers. They do not have the luxury of bringing managers slowly
up the research analyst ladder. Investment managers and traders are hired off trust companies, investment companies, and brokerage firms. Since many fund management companies are set up partly by trust and brokerage companies, managers with investment background in these companies seem like a good fit. Of course, there are differences between being a mutual fund manager and managing assets elsewhere. Fund management is more transparent, faces additional liquidity risk of money inflows and outflows, more regulatory constraint, and more peer pressure. Analysts are hired off research department of financial firms. Some are from banking or government. To be sure, many goes through internal process of research analyst or assistant manager even if they have had previous experience. But the high demand keep the process on average shorter.

II. Data

We focus on actively managed domestic open-end equity mutual funds. Our main sample is created by merging fund data from Wind Database with Tianxiang and CSMAR Database. Wind Mutual Fund Database provides information about fund returns along with other fund characteristics. We use monthly return data throughout our performance and style analysis. Information on mutual fund holdings comes from Tianxiang Database. The holdings information is only available semiannually, due to reporting requirements. Our stock and market returns data comes from CSMAR. Our main sample spans from January 2002 to December 2011. Our sample with stock holdings data starts from January 2005, from when such information is first available. To limit the effect of possible data error and extreme values, we further delete the observations with fund raw return in the top and bottom 1% of the sample. Our final sample includes 369 open-ended equity funds and 542 fund managers in 48 fund families. Table I provides summary statistics of fund and manager characteristics variables in our sample.
A. Career Paths of Managers

A crucial component of our data consists of information on career paths of fund managers leading up to their current positions. We start with fund manager biographies available in Wind and Tianxiang Database, and supplement those with information from internet through an extensive search procedure. We then manually assign each segment of a fund manager’s prior career into different categories. A fund manager in our sample may have one or multiple of the four distinct working experiences in her resume: (1) She may have worked as an administrative staff or official for the government, in which case we assign a categorical ID of Government; (2) she may have worked as a staff or manager for a commercial bank (Banking); (3) she may have worked as a trader or investment manager for proprietary trading arm of brokerage firms or other investment companies (Investment); (4) or she may have worked as a research analyst or research manager of either buy-side or sell-side firms (Research). Dummy variables are then created for each distinct categorical ID in a manager’s career path. Numbers of paths in each category is tabulated in Table I.

Majority of the managers, 472 out of 542, have multiple working experience. For managers with multiple prior working experiences along their career paths, we are also interested in the effect of the primary career background on fund management. To classify each manager’s career into a unique career background, we use a “career scoring system” combining career position with the tenure that a manager stays in that position. Specifically, we assign a position score of 1-4 to each career position according to the level of the position in the career ladder within each of the four working experiences above. We then for each manager calculate a categorical ID score of

$$\text{Categorical ID Score}_j = \sum_{k=1}^{4} \text{Position Score}_{jk} \frac{\text{Tenure}_{jk}}{\text{Total Tenure}},$$

where Position Score$_{jk}$ is the score of career position $k$ in working experience $j$, Tenure$_{jk}$ is the number of years a manager spent on position $k$ of experience $j$, and Total Tenure is the
total number of years of prior working experiences a fund manager have. We then assign the categorical ID of the highest score as each manager's primary career background. For example, a person who worked 2 years as a project manager and 1 years as a sub-branch general manager at the China Merchants Bank, 1 year as an analyst at Price Waterhouse Coopers, and 1 year as Investment Manager at China CITIC has a categorical ID score of $2 \times (2/5) + 3 \times (1/5) = 1.4$ for Banking, $1 \times (1/5) = 0.2$ for Research, and $2 \times (1/5) = 0.4$ in Investment. And her primary career background is designated as Banking. Appendix VII describes in detail the score assignment and the “career scoring system”.

As described in Table I, out of 542 fund managers in our sample, 42 has primary career background classified in categorical ID of Government, 36 are classified in Banking, 221 in Investment, and 243 in Research.

B. Fund Performance

We use several measures for fund performance. Raw Return is computed as the relative change in new asset value including dividend distributions, $Ret_{it} = \frac{NAV_{it} - NAV_{it-1} + D_{it}}{NAV_{it-1}}$. It is therefore net of management fees and other expenses that managers subtract from asset under management. We define excess return as fund raw return net of the benchmark return of its corresponding style. Benchmarks of Chinese equity mutual funds are self-reported, they are in three categories of growth, value, or balanced. In addition, we estimate abnormal returns after adjusting for the factor loadings using the one-factor capital asset pricing model (CAPM) and the Carhart (1997) four-factor model. Table I shows that mutual funds in our sample have large variation in performances. Raw monthly returns, for example, has a minimum of -30.28% and a maximum of 25.78%, with a mean of 1.42%.

[Place Table I about here]
C. Other Fund Characteristics

Previous studies suggest that fund characteristics such as fund age (Chevalier and Ellison (1997)), fund size (Chen, Hong, Huang, and Kubik (2004)), and expense ratios (e.g., Carhart (1997)) help predict fund performance. We control for these fund characteristics in our analysis.

The average age of all funds is around 5 years and the average fund size, measured in logarithm (10 based) of TNA (in million Yuan), is 3.33. Moreover, the mean expense ratio is about 0.16% per month, which translates to an annual rate of 1.92%. This is in line with other studies of Chinese equity funds.

D. Other Manager Characteristics

Table I also reports the summary statistics of other controlling variables of manager characteristics. Chinese mutual fund managers in our sample are 79% male (Sex equals one). 95% of them have a postgraduate degree, and 14% of them have had overseas study or working experiences. Average fund manager tenure is less than 3 years, which is about a year shorter than the average tenure of American fund managers in Chevalier and Ellison (1999a). Many managers manage multiple funds, average number of funds under management is three.

III. Empirical Results

A. Manager Career Paths and Fund Performance

In this section, we examine the relation between fund performances and fund managers work experience. We start with univariate statistics between fund performances and managers’ primary career background. We then proceed to use regression analysis of the effect of career path, both primary career background and each working experience, controlling
for other fund and manager characteristics.

### A.1. Univariate Evidences

Table II tabulates the mean performance measures according to each fund manager’s primary career background. Our first observation of Panel A of the table is that Chinese mutual fund managers seem to earn abnormal returns on average except for the managers with primary career background as banking. Risk-adjusted returns for managers of government, investment, and research backgrounds are all significantly positive. Managers of government primary background have the highest performances in all measures except in excess return (0.29%), where they are second to managers of research background (0.34%). These observations are further confirmed by results in Panel B, where we carry out pairwise T-test of performances between managers of different career backgrounds. Performance differences between other three groups and the Banking group are always positive, and they are significant at least at the 10% level (lowest $t$-stat is 1.78). For example, The differences in four-factor abnormal returns range from 0.37% to 0.45%, which translate into an annual differences of 4.44% to 5.4%. Interestingly, Government group also outperforms Investment and Research groups in CAPM abnormal returns with weak significance.

[Place Table II about here]

### A.2. Regression Evidences

We want to show that manager career path is a unique determinant of fund performances. Our univariate evidences on primary career backgrounds above are suggestive. But performance differences in career paths may be correlated with other fund and manager characteristics. We want to examine the extent to which performance differences between managers of different career backgrounds persist when we control for differences in fund and other manager characteristics. Moreover, since a manager may have multiple career
backgrounds, we want to also estimate the impact of each type of career backgrounds separately. To that end, we follow Li et al. (Forthcoming) in using a Fama-Macbeth regression approach. In each month, we run a cross-section regression of fund performance on manager career-path characteristics controlling for fund and other manager characteristics. That is, we run

\[
\text{Performance}_{ijt} = \delta_{0t} + \gamma_{1t} \text{Career Dummies}_j + \gamma_{2t} \text{Fund Characteristics}_{it} + \gamma_{3t} \text{Other Manager Characteristics}_{jt} + \epsilon_{ijt},
\]

(1)

where \(\gamma\)s are vectors of coefficient estimates, for each month \(t\). We take care to use only return data specific to manager \(j\) in calculating \(\text{Performance}_{ijt}\). We then report the estimated mean and \(t\)-statistics of these coefficients. We use this approach to estimate both the effect of primary career background and individual career background in (potentially) multi-career paths. In case of primary career background, we include dummy variables for each of the categories of Government, Investment, and Research; the omitted category, then, is Banking. In case of individual career background, we include dummy variables for each category for all four categories. Fund managers in our sample have different combinations of career backgrounds, number of distinct backgrounds also vary. In other words, individual career dummies are not constrained to perfect multi-collinearity. This allows us to identify the effect of each individual career background on fund performance. And the sum of coefficient estimates on all career backgrounds a manager has gives the total effect of career path on a manager’s performance.

[Place Table III about here]

Table [III] reports the results. Panel A shows the mean estimates and the corresponding \(t\)-statistics in regressions using primary career background in creating career background dummies. Panel B shows the results for individual career background. Results in Panel A largely confirm our findings in univariate analysis. Point estimates of career dummies in
all performance measures are all positive, and are mostly significant at least at the 10% level except for two instances, indicating that managers of Government, Investment, and Research primary background outperform those of the Banking background. One of the exception is the coefficient estimate on Research Dummy, which equals 0.14 and not significant ($t = 1.36$), with excess return as performance measure. This is in contrast to the univariate result that Research group has the highest excess return among all managers. The difference is likely caused by the correlation between excess returns of the Research group and other fund and manager characteristics. The Government group still has the highest performance in factor-adjusted abnormal returns, but now not in raw or excess returns.

Coefficient estimates for individual career background in career paths, in Panel B, give similar results. Coefficient estimates for government, investment, and research backgrounds are all positive. The Government dummies in these regressions always has the highest estimates among all career backgrounds. Having governmental working experience in a manager’s career is always the most beneficial to her fund managing performance, even when having governmental working experience as primary career background does not result in the best performance in some measures. Estimates on Research are also all significant, but the excess return and CAPM estimates of Investment become insignificant. Perhaps not too surprisingly, estimates of individual background in banking are negative, and significantly so raw return and four-factor return are used as performance measures. The implication is that not only managers of primary banking background perform the worst, having banking experience at some point of a manager’s career is also seemingly detrimental to her later fund management performance.

Coefficient estimates in Panel B also allow us to answer an interesting question: Whether having multiple career backgrounds is good for a Chinese fund manager’s later fund management performance. The answer is yes, except experiences in the banking industry. It simply follows from the fact that the total effect of a manager’s career path is the sum of all the coefficients of categorical dummies for which she has the experience.
Another observation we make from Table III is that risk adjustment is of crucial importance for the relative performance among the three higher performing groups. In Panel A, point estimate for the Government dummy increases from 0.29 (and a weak significance) in raw return regression to 0.56 in CAPM abnormal returns regression, and to 0.81 (and 5% significance) in four-factor abnormal returns regression. Similarly in Panel B, it increases from 0.45 to 0.72, and to 0.86, and is highly significant. Risk-adjusted abnormal returns can be characterized as the stock-picking ability of a manager that is independent to her choice of factor loadings. Career background in government has a larger effect on manager stock-picking abilities. Comparison between Investment and Research, whose estimates are not that different in raw return regressions, is also interesting. Coefficient estimate of Investment decreases as we adjust for more risk-factors in performance measures, while that of Research increases. As a result, adjusting for Carhart (1997) factors, Research has a much larger effect on performance than Investment. It suggests that managers of investment background rely more on choosing factor weights to generate returns, while managers of research background rely more on picking stocks. We examine systematic differences in investment styles among managers with different career paths more closely in the following sections. Overall, our regression results suggest that career path has significant effect on fund management performance, and the effect of different career backgrounds differ across risk-adjusted measures.

A.3. Control Variables

We now turn our attention to regression results of control variables. Consistent with the large literature on the U.S. mutual funds, we find that higher expense is negatively correlated with fund performance. Coefficient estimates on expense ratio are negative and highly significant across all regressions. Contrary to the evidence on the U.S. mutual funds, we find that fund size is positively correlated fund performance, although the significance is limited mostly in regressions of individual career background. This finding, however, is
consistent with evidences for non-U.S. mutual funds (Ferreira, Keswani, Miguel, and Ramos (2013)), and for, in particular, Chinese mutual funds (Tang, Wang, and Xu (2012)). Ferreira et al. (2013) study determinants of mutual fund performance in 27 countries, they find that the U.S. evidence of adverse scale effect is exception rather than the norm. Tang et al. (2012) study a sample of Chinese mutual funds from 2004 to 2009 and find a positive first-order size effect. They interpret this result as economy of scale in the fledging Chinese mutual fund industry. On other fund characteristics, we find no evidence that fund age is correlated with fund performance. This is not surprising given the relative short history of Chinese funds. There is some evidence that jointly managed funds perform worse, but these estimates are mostly insignificant. Funds seem to perform better in the initial three-month period when there is managerial replacement.

Some other manager characteristics seem to affect performance. Fund performances decrease with manager tenure. Interestingly, Female managers perform better than their male counterparts. In the world of male-dominated Chinese mutual fund industry, a female manager need to have extraordinary ability to survive. There is some evidence that managers who have postgraduate degree outperform, but no evidence that overseas experience leads to better fund management ability. Multiple funds under management seem to distract managers, significantly so in some regressions. But manager age does not seem to matter.

B. Manager Career Paths and Fund Management Styles

We show in the last section that relative performance of managers of differing career backgrounds changes when returns are adjusted for varying risk factors. In this section, we examine relation between career path of fund managers and their choice of factor loadings in detail. That is, we study how career paths impact fund management styles (Brown and Goetzmann (1997), Chan, Chen, and Lakonishok (2002)).

Intuitively, career paths may lead to different fund management styles due to two rea-
sons. First, the same personal traits that influence career path may influence fund management style. For example, traders are often said to be overconfident.¹⁰ Managers who spend most of her prior career as traders (therefore in the Investment group) are likely to take on more systematic risk in fund management. Second, specific management style can be a result of relative advantage a manager derives from her career path. A manager with Government career background may enjoy firm-specific private information and load less on systematic risk. By the same token, managers who covers mostly growth stocks in their previous research analyst career are likely to tilt their portfolio towards growth stocks.

The above discussion leads to another point that worths consideration. Namely, it is possible that mutual funds choose to hire managers of different career paths to suit different fund styles. That is, factor loadings and manager career characteristics can be jointly determined by fund style. To alleviate these concerns, as in Wermers (2000), we study the relation using factor loadings in excess of median loadings of the funds having the same self-reported style characteristics. We find similar results if we use unadjusted factor loadings.

To construct our analysis, we first run time series regression for each fund to estimate its exposure to market return and other risk factors using a rolling regression procedure. More specifically, at the end of each semi-annual period, we use the past 24 monthly returns to run the Carhart (1997) four-factor regression:

\[
Ret_{it} - R_{ft} = \alpha_i + \beta_i(MktRet_t - R_{ft}) + s_iSMB_t + h_iHML_t + m_iMOM_t,
\]

where \( Ret_{it} \) is the fund return in month \( t \), \( R_{ft} \) is the risk free rate, \( MktRet_t \) is the market return, and \( SMB_t \), \( HML_t \) and \( MOM_t \) are returns of factor-mimicking portfolios of size, value and momentum. A positive (negative) \( s_i \) would mean the fund is oriented toward small (large) stocks. Similarly, a positive (negative) coefficient \( h_i \) indicates that the fund has a tilt toward value (growth) stocks, and a positive (negative) \( m_i \) indicates that the fund
leans to momentum (contrarian). Since the above regression is carried out every 6 months, we allow factor loadings of funds to be time-varying.

We then match estimates of factor loadings to managers and time periods, and run Fama-Macbeth regression similar to equation [1]. Now using style-adjusted loading estimates as dependent variables. This procedure allows us to attribute time-varying fund factor loading relative to its same-style peers to fund, manager and their career characteristics.

Table IV reports the results. Coefficient estimates on career dummies are remarkably consistent across primary career background (Panel A) and individual career background (Panel B) estimations. Managers of Government background take significantly less market systematic risk, they tilt toward small stocks and growth stocks, and are more likely to be contrarian. These management styles are consistent with the hypothesis that managers of Government background are more likely to have firm specific private information through their political connections. Managers of Investment background, on the other hand, take more market risk, and chase momentum. They are also oriented towards investing in small and glamor stocks. Coefficient estimate on Research group for market risk loading is negative and significant at the 10% level, possibly reflecting the firm-oriented training in these managers’ analyst and research career. They load more on growth stocks, but their preference for small stocks is relatively weak. They exhibit the most negative loading on the momentum factor. The differences in risk loading on the market and momentum factors between managers of investment and research background explain why the latter increasingly outperform the former after adjusting for the risk factors. Finally, managers of Banking background take significantly different loadings in size and value factors from other groups. They load more on large stocks and value stocks. In other words, they prefer more of “blue chip” stocks.

Some estimates on control variables worth discussion. Older funds have less market
risk loading and chase less momentum. Larger funds, perhaps inevitably, load more on market risk. They invest relatively more in large socks and do not chase momentum. Older managers show a statistically significant tendency to load less on market risk, therefore are more conservative. We do not find evidence that manager tenure of Chinese mutual fund managers significantly affects their management styles. Interestingly, male managers take more risk, as suggested by the overconfidence hypothesis (e.g., Barber and Odean (2001)).

Summing up, we find that managers of different career path differ in their fund management styles, even within the self-reported investment style categories. Managers of Banking background are distinct in that they tend to invest in large market cap and value stocks. High loadings in market and momentum factors differentiates investment style of managers of Investment background from those of Government and Research backgrounds. Evidences here corroborate the results in Section III.A. High return achieved by managers of Investment background is mainly attributable to their greater holdings of systematic risk. Accounting for their momentum chasing style further cuts down their performance. In contrast, lower loadings in market and momentum factors among managers of Research, and especially Government, backgrounds indicate that they have an informational advantage. It seems unlikely that ability or innate personal trait explains all these differences. Excelling in bureaucracy and conducting stock research, for example, require very different skills; yet styles of these two groups of managers are more similar. We argue that acquired tendencies and advantages in a managers career path, at least in part, contribute to her management style and performance.

C. Manager Career Paths and Informational Advantage: Holding-based Evidence

In this section, we examine relative informational advantage of fund managers of different career paths using fund holdings data. Our analysis in the previous sections suggests that managers of Government and Research backgrounds hold an informational advantage.
Holding data allows us to see the stock pickings of managers, avoid potential pitfalls in relying on the short time-series return data (Barras, Scaillet, and Wermers (2010)), and examine the information hypothesis more closely. For easy exposition, we report only results for primary career path. Results for individual career path are qualitatively similar.

One immediate prediction that follows regarding stock holding is that portfolios of these managers should be more concentrated. We start off by examining the Concentration Ratio, which is defined as the ratio of the market value of top 10 stock holdings over the total market value of a fund's equity portfolio.\(^1\)\(^1\) We then study fund managers' consistency in picking stocks using a simple metric, the proportion of performance contributing stocks in a portfolio. Specifically, if in a portfolio of \(n\) stocks the number of stocks whose excess returns beat the style-specific median is denoted as \(k\), we calculate \(k/n\).\(^1\)!\(^2\) We call this measure contribution ratio. A higher contribution ratio indicates that a manager is likely to possess consistent information advantage rather than just being lucky. Finally, we examine the return gap, which is computed as the difference between the fund return and the hypothetical return of portfolio holdings, following Kacperczyk et al. (2008). Return gap measures the unobserved actions of fund managers in timely trading stocks based on their private information. Kacperczyk et al. (2008) demonstrate that return gap is positively correlated with performance persistence. We run above holding-based measures through the Fama-Macbeth procedure on firm, manager and career characteristics, again leaving out primary Banking career background as benchmark case.

\[\text{Table V about here}\]

Table V reports the average coefficient estimates of cross-sectional regressions. Concentration Ratios are significantly different across manager groups. Government dummy has the highest point estimate of 2.46, followed by Research at 1.18. Interestingly, estimate on Investment is negative at \(-1.64\) and highly statistically significant, suggesting that managers of Investment background hold portfolios even more diverse than the benchmark
Banking group. These results are consistent with the hypothesis that managers of government and research background possess private information advantage or stock-picking skills. Their higher abnormal returns we document in Section III.A are achieved through picking and concentrating on a relative small number of stocks. Table V further shows that these two groups have higher contribution ratios, which measure the proportion of above-median performance stocks in a portfolio, and higher return gaps, which measure timeliness in trading. Estimates on the Investment dummy for the same measures, although positive, are either insignificant (contribution ratio) or only weakly significant (return gap). However, relative standing of the Investment group across three measures suggests that managers of Investment background rely more on timeliness in trading rather than stock picking in generating abnormal returns.

IV. Robustness Tests

We test the robustness of our findings along two lines: to alternative definition of career background and to alternative estimation methods. In this section, we report test results with respect to fund performances. Our findings in fund management style and information advantage are also robust to these alternative approaches.

A. Alternative Definitions of Primary Career Background

In our main empirical analysis of the last section, we use a career scoring system that takes into account both career positions and working tenure in assigning primary career background to managers. Table VI reports Fama-Machbeth regression results using two alternative methods in designating primary career background. In Panel A, we define a manager’s primary career background according to the highest position she achieved in her prior work experiences. In Panel B, we define a manager’s primary career background according to the longest tenure in her prior work experiences. Our main findings remain unchanged.
Namely, managers of government and research backgrounds show superior performances, especially after adjusting for risk factors. Managers of investment background also perform better than that of the banking background, but the difference becomes insignificant after adjusting for additional risk factors. Nevertheless, it’s interesting to note that estimates of career background dummies in VI are smaller than those in III and less significant in some instances, which suggests that our approach of combining professional position and working tenure can better reflect the influence of prior work experience on subsequent job performances.

B. Robustness to Alternative Estimation Method

In this section, we check the robustness of our findings with an alternative fixed effect panel model. We are interested in the effect of work experience, a manager specific characteristics, on fund performance while controlling for fund and time series specific effects. To achieve this, we estimate the following regression:

$$\text{Performance}_{ijt} = \alpha_t + \gamma_i + \beta X_{it} + \lambda Z_j + \epsilon_{ijt},$$  (3)

where $\alpha_t$ stands for a monthly time fixed effect, $\gamma_i$ are fund fixed effects, $X_{it}$ represents time-varying fund and manager characteristics, and $Z_j$ are manager-specific career background dummies. With the inclusion of both fund and time fixed effects, our identification of $\lambda$ depends on managers who stay in one fund for only a subset of the entire sample period or managers who switches fund within the sample period.$^{13}$ By including the fund fixed effect, we also control for the contribution of unobserved fund characteristics to fund performance.

Table VII reports the results. It shows that our findings are robust to the alternative fixed effect regression method. Managers of government experience continue to be the highest performing group, followed by managers of research background. And their advantages
are more magnified after controlling for risk factors. Coefficient estimates for Government prime career background (Panel A), for example, increase from $0.516(t = 2.20)$ in raw returns to $0.54(t = 2.71)$ in four-factor adjusted abnormal returns. The evidence that managers of investment background do not outperform after accounting for risk taking is also more pronounced in able VII. While some of the estimates on Investment using risk-adjusted abnormal returns as dependent variables remain weakly significant in Table III, they are all insignificant in Table VII.

C. Further Robustness

One potential concern of our analysis is that career backgrounds of fund managers, although unlikely, may reflect skill or quality of education received. To address that concern, we create a variable that proxy for qualities of undergraduate institutions and add it as an additional control in our baseline performance regressions. The dummy variable, High-Quality Undergraduate, equals one if a manager is graduated from one of the 112 “Project 211” universities, and zero otherwise. “Project 211” universities are designated by the Chinese government and are widely regarded as top universities in China. “Project 211” universities are very competitive in their College Entrance Exam score requirement. Therefore, this control variable can capture some of the cross-sectional skill difference. But we cannot completely separate out skill from quality of education with this variable. Table VIII reports the results. We see that coefficient estimates on High-Quality Undergraduate are all positive, although not significant, consistent with the hypothesis that undergraduate study at “Project 211” universities proxy for better skill and/or education. More importantly, coefficient estimates on career background dummies and their significance are largely unchanged and are all consistent with our earlier baseline regression results in Table III.

Another potential concern of our analysis is that our use of multiple dummy variables in estimating the effects of individual career backgrounds in potentially multiple-career work experiences (Panel B, Table III) implicitly assumes individual career backgrounds are
of equal importance regardless of tenure spend on the work. To address the concern, we re-estimate Panel B, Table III using categorical ID scores of each work experience directly instead of using dummies. Categorical ID scores measure relative importance of each work experience in a career path, and they are comparable across persons. Table IX reports the results. These results indicate that our inferences are robust to taking tenure of each experience into account.

V. Manager Career Paths and Fund New Money Flows

Our analysis above consistently show that fund managers of banking career background are among the worst performing managers. It then raises the question, why do fund management companies continue to hire managers with banking work experience? One simple possible answer is that with short existence of Chinese fund industry, companies do not have enough knowledge about the connection between work experience and fund manager performance. Another possible answer is that managers of banking career background bring other benefits to the fund families. We conjecture that expertise and connections of the managers of banking career background help funds attract new money flows beyond their asset managing performance. Our analysis of manager career paths and fund new money flows is aimed at providing some answers in that direction.

Fee structure of mutual fund dictates that revenues of fund managing companies depend crucially on asset under management, and by extension, new money flows. With a still-maturing financial service industry, banks in China dominate the retail distribution channel of mutual funds. Two factors contribute to their dominance. One, banks have extensive branch networks in place. Second, consumers are not yet very savvy about different types of financial products, they tend to rely on the banks for recommendations. It is under this background that expertise and connections of managers of banking work experience can be valuable resources for mutual funds.
We calculate the new money flow to a fund from the change in total net assets (TNA), net of price appreciation in the fund assets, assuming that new money is invested at the end of each period. We then normalise the new money flow by TNA at the beginning of the period to get a measure for new money flow growth rate. Namely, new money flow growth (NMFG) is defined as

\[ NMFG_{it} = \frac{TNA_{it} - TNA_{i,t-1}(1 + Ret_{it})}{TNA_{i,t-1}}. \]  

(4)

Reporting requirement of Chinese mutual funds means our new money flow growth measure is in semi-annual frequency. We then regress the new money flow growth on last period fund performance, as measured by four-factor abnormal return, manager career background and other fund and manager characteristics, using Fama-Macbeth and fixed-effect estimation methods outlined above. Table X reports the results.

[Place Table X about here]

Results presented in Table X indicate that managers of banking backgrounds help attract additional new money flow to their funds. The coefficients of the Investment and Research dummies as measured by primary career background (column one and three) are all negative. They are significant at at least the 10% level. The coefficients of the Government dummies on the same columns are positive but largely insignificant. These results suggest that controlling for performances, managers of primary banking background have a higher ability in attracting new money to the funds than managers of investment and research background. Their ability of generating new money flow are almost on par with those of government primary background. Inspection on the estimates on individual career background (column two and four) further reveals that work experience in banking contribute significantly positively to new money flow growth. Interestingly, Table X shows that Chinese retail investors do respond to past fund performance, but estimates on fund characteristics such as size, age and expense ratio are insignificant.

The estimation results revealed in Table X are economically significant. Take, for ex-
ample, the estimates for primary career background using Fama-Macbeth approach and compare managers of research and banking backgrounds. Recall from Table III, the coefficient on Research with four-factor abnormal return as dependant variable is a significant 0.56, suggesting managers of research background outperform those of banking background 0.56% a month, which translate to 3.36% in a half year. The coefficient estimate on past period performance of the same specification in Table X is 2.99, which means difference in new money flow growth due to past performance between managers of research background and banking background is about 1% (3.36% × 2.99%). The coefficient estimate on Research in Table X is −1.42, suggesting managers of research background attract 1.42% less new money flow growth than managers of banking background after controlling for performance and other factors. This exceeds the 1% advantage they enjoy over managers of banking background due to better performances. Given the average TNA of RMB2.14 billion, the difference in new money flow is sizable in economic terms. Banking background managers more than compensate their performance in generating new money flows to funds.

Table X show career backgrounds affect fund money flow. Do career backgrounds also affect the sensitivity of money flow to past performance? To answer this question, we run separately horse-race regressions of new money flow on each primary career background against rest of the categories. The results, presented in Table XI, suggest that managers of banking background not only attracts more money inflows, their money flow are also comparatively less sensitive to past performances (t = 1.86). In two-way horse-races, managers of government background are less sensitive to past performance, while managers of research (not significant) and investment backgrounds are more sensitive to past performances.

Our finding that managers of banking background hold advantage in generating new money flows is inline with the dominance of banks in mutual fund share distribution in China. It is consistent with the idea that work experience affect managerial performance through knowledge and connections established in their career.
VI. Conclusion

In real life, a lot of emphasis are put on work experiences in hiring decisions. However, empirical evidence that work experience matters is very limited. This paper fills in the gap. We provide evidence that work experience influences manager performance and management style, and that these effects are consistent with the comparative advantage managers accumulate along their career paths.

Examining a sample of Chinese mutual funds, we find that managers of government background and research background display better stock-picking abilities, although sources of their information advantage likely differ. Benchmarking against managers of banking experience, the work experience that leads to the lowest fund managing performance, we find that managers of government background on average have the highest risk-adjusted returns while holding the most concentrated portfolio and bearing the least amount of market risk. Managers of research background also outperform. They are the least prone to a momentum strategy and holds the second highest concentrated portfolio. In contrast, we find that the high raw returns of managers of investment background are most attributable to high systematic risk these managers hold and their tendency of leaning more toward the momentum strategy.

We believe that the significant effect of manager career path on fund management style and performance we document is not limited to the Chinese mutual fund industry we study. Although the specifics of which career path leads to better fund management performance may be peculiar to the sample we study, we believe the notion that a mutual fund manager’s professional experience has influence on her asset managing style and performance should hold more broadly. Part of this connection between career path and fund management is likely due to the comparative advantage a fund manager accumulates along her career path, be it industry knowledge, information networks, or market sense. After all, formation of human capital is a cumulative process.
VII. Appendix

Table AI
Career Scoring System

This table summarizes the position score we assign to calculate categorical ID score of each manager’s career path. We then assign the categorical ID of the highest score as a manager’s primary career background.

<table>
<thead>
<tr>
<th>Score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel A: Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td>Staff</td>
<td>Senior Staff</td>
<td>Keji-level</td>
<td>Chuji-level</td>
</tr>
<tr>
<td>Number of fund managers</td>
<td>26</td>
<td>53</td>
<td>46</td>
<td>17</td>
</tr>
</tbody>
</table>

| Panel B: Investment |     |     |     |     |
| Level | Trader | Investment Manager | Assistant Director (Investment) | Director (Investment) |
| Number of fund managers | 274 | 224 | 126 | 74  |

| Panel C: Research |     |     |     |     |
| Level | Analyst | Senior Analyst (Academic) | Assistant Director (Research) | Director (Research) |
| Number of fund managers | 323 | 138 (16) | 94  | 46  |

| Panel D: Banking |     |     |     |     |
| Level | Staff | Senior Manager | Sub-Branch Manager | Division Manager |
| Number of fund managers | 26  | 72  | 5   | 29  |
REFERENCES


Notes

1In finance context, most of the available evidences are from corporate finance research. See Custodio, Ferreira, and Matos (2012), Malmendier et al. (2011), Schoar and Zuo (2011), and Dittmar and Duchin (2013).

2We do not test for correlation between industry coverage in a fund manager’s research analyst career and stock holding, since information about industry coverage in previous analyst career is not available.

3In relation to labor market aspects of fund management, Chevalier and Ellison (1999b) study career considerations and risk taking during fund management career, and Deuskar, Pollet, Wang, and Zheng (2011) investigate the career choice of mutual fund managers in departing the industry.

4We select “equity” and “equity-majority” in fund type. We then eliminate index funds and international funds from the sample. In addition, we excludes observations from funds of less than one year of history.

5http://www.wind.com.cn/

6http://www.txsec.com/

7Dividing the score by total tenure has no effect on assigning categorical IDs, since each person has one (same) total tenure. It does make difference when we use categorical ID score of each individual career in regressions of potential multiple careers in Table IX.

8See, for example, Carhart (1997), Chevalier and Ellison (1999a), and Wermers (2000) among others.


10Previous research has linked investment style to personal traits. Barber and Odean (2001), for example, finds gender difference in excessive trading.

11We repeat the analysis using the top five and top three concentration ratios. The results remain consistent.
For more detailed discussion of this metric, see Chung and Kim (2013).

See Bertrand and Schoar (2003) for more detailed discussion of the manager fixed effect models.

We create this variable from information on managers’ resume and extensive web searches. Since managers engage in selective reporting on their resumes, we set the value to zero if we fail to recover information about a manager’s undergraduate institution.

By some estimate, China’s four largest banks account for more than 60% of mutual fund sales in 2011. See “Beijing opens up fund sales market”, Financial Times, June 26, 2011.
Table I
Summary Statistics of Fund and Manager Characteristics

This table summary statistics for the sample of actively managed Chinese equity mutual fund. For dummy variables in fund characteristics, manager career path and other manager characteristics the first column (#) reports the number of observations where the dummy variable equals to one.

<table>
<thead>
<tr>
<th></th>
<th>#</th>
<th>Min</th>
<th>Median</th>
<th>Mean</th>
<th>S.D.</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fund-month obs.</td>
<td>10,264</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of funds</td>
<td>369</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of fund managers</td>
<td>542</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fund Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw return (%)</td>
<td>-30.28</td>
<td>1.88</td>
<td>1.42</td>
<td>0.08</td>
<td>25.78</td>
<td></td>
</tr>
<tr>
<td>Excess return (%)</td>
<td>-23.90</td>
<td>0.20</td>
<td>0.30</td>
<td>0.04</td>
<td>29.32</td>
<td></td>
</tr>
<tr>
<td>CAPM abnormal return (%)</td>
<td>-52.10</td>
<td>0.30</td>
<td>0.27</td>
<td>0.04</td>
<td>28.33</td>
<td></td>
</tr>
<tr>
<td>Four-factor abnormal return (%)</td>
<td>-51.24</td>
<td>0.53</td>
<td>0.52</td>
<td>0.04</td>
<td>28.96</td>
<td></td>
</tr>
<tr>
<td>Fund age</td>
<td>1.32</td>
<td>5.30</td>
<td>4.96</td>
<td>2.18</td>
<td>10.6</td>
<td></td>
</tr>
<tr>
<td>Log (TNA) (Million Yuan)</td>
<td>1.72</td>
<td>3.41</td>
<td>3.33</td>
<td>0.61</td>
<td>4.52</td>
<td></td>
</tr>
<tr>
<td>Expense ratio (%)</td>
<td>0.00</td>
<td>0.13</td>
<td>0.16</td>
<td>0.01</td>
<td>1.14</td>
<td></td>
</tr>
<tr>
<td>Joint management</td>
<td>4,847</td>
<td>0.00</td>
<td>0.47</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Managerial replacement</td>
<td>2,722</td>
<td>0.00</td>
<td>0.27</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td><strong>Primary career background</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>42</td>
<td>0.00</td>
<td>0.08</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Banking</td>
<td>36</td>
<td>0.00</td>
<td>0.07</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td>221</td>
<td>0.00</td>
<td>0.41</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>243</td>
<td>0.00</td>
<td>0.44</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td><strong>Multiple career background</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>58</td>
<td>0.00</td>
<td>0.11</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Banking</td>
<td>63</td>
<td>0.00</td>
<td>0.12</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td>369</td>
<td>0.00</td>
<td>0.68</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>384</td>
<td>0.00</td>
<td>0.71</td>
<td></td>
<td>1.00</td>
<td></td>
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<td><strong>Other Manager Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political connection</td>
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<td>0.00</td>
<td>0.30</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
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<td>0.00</td>
<td>0.79</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>515</td>
<td>0.00</td>
<td>0.95</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Overseas experience</td>
<td>76</td>
<td>0.00</td>
<td>0.14</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Manager tenure</td>
<td>1.00</td>
<td>3.00</td>
<td>2.66</td>
<td>1.13</td>
<td>8.00</td>
<td></td>
</tr>
<tr>
<td>Manager age</td>
<td>27.00</td>
<td>36.00</td>
<td>36.66</td>
<td>3.91</td>
<td>52.00</td>
<td></td>
</tr>
<tr>
<td># of FUM</td>
<td>1.00</td>
<td>3.00</td>
<td>3.00</td>
<td>1.52</td>
<td>7.00</td>
<td></td>
</tr>
</tbody>
</table>
Table II
Univariate Analysis of Fund Performance and Manager Career Path

This table reports univariate statistics of fund performance measures for managers grouped by primary career background. Panel A reports the mean performance measures. Panel B reports the pair-wise performance difference between groups. The returns are expressed in percent per month. The \( t \)-stats are in parentheses. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
<thead>
<tr>
<th></th>
<th>Raw Return</th>
<th>Excess Return</th>
<th>CAPM Ab. Return</th>
<th>Four-Factor Ab. Return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Mean performance measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>1.29***</td>
<td>0.29*</td>
<td>0.34***</td>
<td>0.59***</td>
</tr>
<tr>
<td></td>
<td>(4.38)</td>
<td>(1.76)</td>
<td>(3.22)</td>
<td>(4.74)</td>
</tr>
<tr>
<td>Investment</td>
<td>1.12***</td>
<td>0.27***</td>
<td>0.25***</td>
<td>0.51***</td>
</tr>
<tr>
<td></td>
<td>(8.11)</td>
<td>(3.86)</td>
<td>(4.12)</td>
<td>(10.06)</td>
</tr>
<tr>
<td>Research</td>
<td>1.16***</td>
<td>0.34***</td>
<td>0.26***</td>
<td>0.56***</td>
</tr>
<tr>
<td></td>
<td>(13.96)</td>
<td>(5.46)</td>
<td>(4.46)</td>
<td>(9.33)</td>
</tr>
<tr>
<td>Banking</td>
<td>0.64***</td>
<td>-0.01</td>
<td>-0.04</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>(2.92)</td>
<td>(-0.02)</td>
<td>(-0.80)</td>
<td>(0.03)</td>
</tr>
<tr>
<td><strong>Panel B: Pairwise T-test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government-Investment</td>
<td>0.17</td>
<td>0.02</td>
<td>0.09*</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>(1.04)</td>
<td>(0.88)</td>
<td>(1.98)</td>
<td>(1.23)</td>
</tr>
<tr>
<td>Government-Research</td>
<td>0.13</td>
<td>-0.05</td>
<td>0.08*</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>(0.87)</td>
<td>(-1.27)</td>
<td>(1.83)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Government-Banking</td>
<td>0.65*</td>
<td>0.30*</td>
<td>0.38**</td>
<td>0.45*</td>
</tr>
<tr>
<td></td>
<td>(1.95)</td>
<td>(1.82)</td>
<td>(2.02)</td>
<td>(1.78)</td>
</tr>
<tr>
<td>Investment-Research</td>
<td>-0.04</td>
<td>-0.07</td>
<td>-0.01</td>
<td>-0.05</td>
</tr>
<tr>
<td></td>
<td>(-0.22)</td>
<td>(-1.44)</td>
<td>(-0.32)</td>
<td>(-0.25)</td>
</tr>
<tr>
<td>Investment-Banking</td>
<td>0.76**</td>
<td>0.28*</td>
<td>0.29**</td>
<td>0.37*</td>
</tr>
<tr>
<td></td>
<td>(2.05)</td>
<td>(1.84)</td>
<td>(2.16)</td>
<td>(1.79)</td>
</tr>
<tr>
<td>Research-Banking</td>
<td>0.97**</td>
<td>0.35**</td>
<td>0.30**</td>
<td>0.42**</td>
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<tr>
<td></td>
<td>(2.05)</td>
<td>(2.10)</td>
<td>(2.16)</td>
<td>(2.16)</td>
</tr>
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</table>
### Table III
Regression Analysis of Fund Performance and Manager Career Path

This table reports the mean coefficient estimates of the Fama-Macbeth regressions of fund performances on career background dummies, fund characteristics and other manager characteristics. In Panel A, career background dummies are defined according to fund manager’s primary career background. In Panel B, we create a career background dummy for each individual career background in a manager’s career path. Regressions are carried out for each month and mean coefficient estimates are reported. The returns are in percentage. The $t$-stats use Newey-West adjusted standard errors, and are in parentheses. Time Series average of $R^2$ are also reported. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
<thead>
<tr>
<th>Dependant Variables</th>
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<th>Panel B: Individual Career Background</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Raw Ret</td>
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</tr>
<tr>
<td>Government</td>
<td>0.29*</td>
<td>0.21*</td>
</tr>
<tr>
<td></td>
<td>(1.86)</td>
<td>(1.71)</td>
</tr>
<tr>
<td>Investment</td>
<td>0.36**</td>
<td>0.37*</td>
</tr>
<tr>
<td></td>
<td>(2.04)</td>
<td>(1.94)</td>
</tr>
<tr>
<td>Research</td>
<td>0.34**</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>(2.01)</td>
<td>(1.36)</td>
</tr>
<tr>
<td>Banking</td>
<td>-0.47*</td>
<td>-0.33</td>
</tr>
<tr>
<td></td>
<td>(-1.84)</td>
<td>(-1.16)</td>
</tr>
<tr>
<td>Fund age</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>(0.17)</td>
<td>(0.23)</td>
</tr>
<tr>
<td>Log (TNA)</td>
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<td>0.26</td>
</tr>
<tr>
<td></td>
<td>(0.43)</td>
<td>(0.48)</td>
</tr>
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<td>Expense ratio</td>
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<td>-6.75**</td>
</tr>
<tr>
<td></td>
<td>(-2.96)</td>
<td>(-2.29)</td>
</tr>
<tr>
<td>Joint management</td>
<td>-0.59**</td>
<td>-0.26*</td>
</tr>
<tr>
<td></td>
<td>(-2.33)</td>
<td>(-1.72)</td>
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<tr>
<td>Managerial replacement</td>
<td>0.73*</td>
<td>0.85**</td>
</tr>
<tr>
<td></td>
<td>(1.94)</td>
<td>(2.05)</td>
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<tr>
<td>Manager tenure</td>
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<td>-0.02**</td>
</tr>
<tr>
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<td>(-2.36)</td>
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<tr>
<td>Sex</td>
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</tr>
<tr>
<td></td>
<td>(-1.59)</td>
<td>(-1.89)</td>
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<tr>
<td>Postgraduate degree</td>
<td>0.13</td>
<td>0.17*</td>
</tr>
<tr>
<td></td>
<td>(1.62)</td>
<td>(1.82)</td>
</tr>
<tr>
<td>Overseas experience</td>
<td>-0.11</td>
<td>-0.13</td>
</tr>
<tr>
<td></td>
<td>(-0.43)</td>
<td>(-0.64)</td>
</tr>
<tr>
<td># of FUM</td>
<td>-0.04*</td>
<td>-0.04</td>
</tr>
<tr>
<td></td>
<td>(-1.71)</td>
<td>(-1.42)</td>
</tr>
<tr>
<td>Manager age</td>
<td>-0.02</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(-0.09)</td>
<td>(-0.08)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.16</td>
<td>-0.28</td>
</tr>
<tr>
<td></td>
<td>(-0.37)</td>
<td>(-1.21)</td>
</tr>
<tr>
<td>Obs.</td>
<td>10,264</td>
<td>10,264</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>7.56%</td>
<td>7.97%</td>
</tr>
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</table>
Table IV
Fund Factor Loading and Manager Career Path

This table reports the mean coefficient estimates of the Fama-Macbeth regressions of fund risk-loadings on career background dummies, fund characteristics and other manager characteristics. In Panel A, career background dummies are defined according to fund manager’s primary career background. In Panel B, we create a career background dummy for each individual career background in a manager’s career path. At the end of each semi-annual period, we first use the past 24 monthly returns to run the Carhart (1997) four-factor model of Equation 2 to estimate the risk loadings. We then regress the estimated risk-loadings on career background dummies, fund characteristics and other manager characteristics and report the mean coefficient estimates. The t-stats use Newey-West adjusted standard errors, and are in parentheses. Time Series average of $R^2$ are also reported. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Panel A: Primary Career Background</th>
<th>Panel B: Individual Career Background</th>
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</thead>
<tbody>
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<td></td>
<td>MktRet SMB HML MOM</td>
<td>MktRet SMB HML MOM</td>
</tr>
<tr>
<td>Government</td>
<td>-0.07** 0.11*** -0.13* -0.15***</td>
<td>-0.04* 0.03** -0.07** -0.03*</td>
</tr>
<tr>
<td></td>
<td>(-1.92) (2.42) (-1.86) (-2.74)</td>
<td>(-1.93) (2.02) (-1.97) (-1.72)</td>
</tr>
<tr>
<td>Investment</td>
<td>0.02** 0.05 -0.20*** 0.17***</td>
<td>0.03* 0.04*** -0.13 0.10***</td>
</tr>
<tr>
<td></td>
<td>(2.05) (1.14) (-3.08) (3.16)</td>
<td>(1.84) (2.97) (-1.64) (2.11)</td>
</tr>
<tr>
<td>Research</td>
<td>-0.01* 0.05 -0.17*** -0.21***</td>
<td>-0.02 0.03 -0.04* -0.06***</td>
</tr>
<tr>
<td></td>
<td>(-1.69) (1.22) (-2.75) (-3.89)</td>
<td>(-1.62) (1.64) (-1.75) (-2.96)</td>
</tr>
<tr>
<td>Banking</td>
<td>0.02 0.06** 0.05** 0.06*</td>
<td>0.02 (-2.21) (2.13) (1.68)</td>
</tr>
<tr>
<td></td>
<td>(1.31) (2.49) (1.36) (1.84)</td>
<td></td>
</tr>
<tr>
<td>Fund age</td>
<td>-0.02** 0.02 0.02** -0.02***</td>
<td>-0.01*** 0.01 0.02 -0.02***</td>
</tr>
<tr>
<td>Log (TNA)</td>
<td>0.17 -0.02 -0.04*** -0.09***</td>
<td>0.15*** -0.01 -0.04*** -0.09***</td>
</tr>
<tr>
<td></td>
<td>(1.62) (-1.56) (-2.41) (-7.15)</td>
<td>(3.24) (-1.49) (-2.76) (-6.73)</td>
</tr>
<tr>
<td>Expense ratio</td>
<td>0.76 1.18*** 1.84*** -1.75***</td>
<td>0.95 1.25*** 2.02*** -1.83***</td>
</tr>
<tr>
<td></td>
<td>(0.86) (2.64) (2.54) (-2.93)</td>
<td>(1.30) (2.79) (2.81) (-3.10)</td>
</tr>
<tr>
<td>Joint management</td>
<td>-0.05*** 0.01 0.01 0.04*</td>
<td>-0.02 0.01 0.01 0.04***</td>
</tr>
<tr>
<td></td>
<td>(-2.77) (1.03) (0.17) (1.87)</td>
<td>(-1.13) (0.84) (0.21) (2.91)</td>
</tr>
<tr>
<td>Managerial replacement</td>
<td>-0.02 -0.01 0.02 0.02</td>
<td>-0.01 -0.01 -0.01 0.02</td>
</tr>
<tr>
<td></td>
<td>(-1.09) (-0.47) (-0.13) (0.71)</td>
<td>(-0.08) (0.26) (-0.17) (0.88)</td>
</tr>
<tr>
<td>Manager tenure</td>
<td>-0.01 -0.21 -0.62 0.61 (0.85)</td>
<td>-0.86 (-1.35) (0.95) (1.21)</td>
</tr>
<tr>
<td></td>
<td>(-1.68) (0.23) (-1.24) (1.41)</td>
<td>(2.81) (0.11) (-1.51) (1.01)</td>
</tr>
<tr>
<td>Sex</td>
<td>0.06* 0.01 -0.04 0.04</td>
<td>0.09*** 0.01 -0.05 0.03</td>
</tr>
<tr>
<td></td>
<td>(1.68) (0.23) (-1.24) (1.41)</td>
<td>(2.81) (0.11) (-1.51) (1.01)</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>-0.01 0.04* 0.07*** -0.02</td>
<td>-0.01 0.04** 0.08** -0.02</td>
</tr>
<tr>
<td></td>
<td>(-0.26) (1.78) (2.02) (-0.59)</td>
<td>(-0.31) (2.14) (2.26) (-0.81)</td>
</tr>
<tr>
<td>Overseas experience</td>
<td>0.02 -0.02 0.12*** 0.11***</td>
<td>0.01 -0.01 0.11*** 0.11***</td>
</tr>
<tr>
<td></td>
<td>(0.59) (-1.13) (4.51) (4.26)</td>
<td>(0.05) (-0.75) (4.07) (4.37)</td>
</tr>
<tr>
<td># of FUM</td>
<td>-0.02*** -0.02*** 0.01 0.04</td>
<td>0.02** -0.02*** -0.02*** 0.01</td>
</tr>
<tr>
<td></td>
<td>(-4.04) (-4.61) (0.73) (0.87)</td>
<td>(-3.76) (-4.76) (0.83) (0.42)</td>
</tr>
<tr>
<td>Manager age</td>
<td>-0.01*** -0.01* -0.01*** -0.01</td>
<td>-0.01*** -0.01** -0.01*** -0.01</td>
</tr>
<tr>
<td></td>
<td>(-2.96) (-1.72) (-2.84) (-1.23)</td>
<td>(-3.42) (-1.98) (-2.74) (-0.76)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.05 -0.07 0.18 0.47***</td>
<td>0.13 -0.04 0.03 0.06**</td>
</tr>
<tr>
<td></td>
<td>(1.35) (-0.69) (1.29) (4.66)</td>
<td>(1.14) (-0.82) (0.15) (2.02)</td>
</tr>
<tr>
<td>Obs.</td>
<td>2.092 2.092 2.092 2.092</td>
<td>2.092 2.092 2.092 2.092</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>7.42% 8.62% 9.54% 9.22%</td>
<td>7.04% 8.25% 9.33% 9.35%</td>
</tr>
</tbody>
</table>
This table reports the mean coefficient estimates of the Fama-Macbeth regressions of holdings-based measures on primary career background dummies, fund characteristics and other manager characteristics. Concentration Ratio is defined as the ratio of the market value of top 10 stock holdings over the total market value of a fund’s equity portfolio. Contribution Ratio is defined as the proportion of the number of stocks whose excess returns beat the style-specific median in a portfolio. Return Gap is computed as the difference between the fund return and the hypothetical return of portfolio holdings. The returns are in percentage. The t-stats are in parentheses. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
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<th>Contribution Ratio</th>
<th>Return Gap</th>
</tr>
</thead>
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<td>Government</td>
<td>2.46*** (3.06)</td>
<td>0.06* (1.92)</td>
<td>0.40** (2.01)</td>
</tr>
<tr>
<td>Investment</td>
<td>-1.64*** (-2.74)</td>
<td>0.02 (1.21)</td>
<td>0.21* (1.69)</td>
</tr>
<tr>
<td>Research</td>
<td>1.18* (1.94)</td>
<td>0.05*** (3.66)</td>
<td>0.40** (2.02)</td>
</tr>
<tr>
<td>Fund age</td>
<td>0.09 (1.01)</td>
<td>0.02 (0.95)</td>
<td>0.01** (2.47)</td>
</tr>
<tr>
<td>Log (TNA)</td>
<td>1.73*** (3.85)</td>
<td>0.16*** (2.81)</td>
<td>1.83*** (5.16)</td>
</tr>
<tr>
<td>Expense ratio</td>
<td>-14.12 (-0.83)</td>
<td>-2.78*** (-5.43)</td>
<td>-3.98*** (-6.29)</td>
</tr>
<tr>
<td>Joint management</td>
<td>-0.56 (-1.54)</td>
<td>0.01* (1.72)</td>
<td>-0.07 (-0.31)</td>
</tr>
<tr>
<td>Managerial replacement</td>
<td>-1.04 (-0.94)</td>
<td>0.02** (2.11)</td>
<td>1.69 (0.42)</td>
</tr>
<tr>
<td>Manager tenure</td>
<td>0.21** (2.43)</td>
<td>-0.03** (-2.16)</td>
<td>0.12 (0.38)</td>
</tr>
<tr>
<td>Sex</td>
<td>-1.90*** (-2.65)</td>
<td>0.04** (2.13)</td>
<td>-2.05 (-1.19)</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>-0.30 (-0.14)</td>
<td>0.02 (1.09)</td>
<td>1.33 (1.00)</td>
</tr>
<tr>
<td>Overseas experience</td>
<td>-1.13* (-1.84)</td>
<td>-0.01 (-1.51)</td>
<td>-2.24* (-1.74)</td>
</tr>
<tr>
<td># of FUM</td>
<td>-0.25 (-1.58)</td>
<td>-0.01 (-0.28)</td>
<td>0.15 (0.13)</td>
</tr>
<tr>
<td>Manager age</td>
<td>-0.01* (-1.73)</td>
<td>-0.01*** (-2.74)</td>
<td>-0.03 (-1.41)</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.47** (-2.42)</td>
<td>-0.12*** (-2.71)</td>
<td>-0.49*** (-4.77)</td>
</tr>
<tr>
<td>Obs.</td>
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<td>2,456</td>
<td>2,456</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>4.33%</td>
<td>5.36%</td>
<td>5.26%</td>
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</table>
Table VI
Fund Performance and Career Background: Alternative Definitions of Primary Career Background

This table reports the mean coefficient estimates of the Fama-Macbeth regressions of fund performances on alternative definitions of primary career background dummies, fund characteristics and other manager characteristics. In Panel A, primary career background dummies are defined according to the highest professional position a manager achieved in her respective careers. In Panel B, primary career background dummies are defined according to the longest professional tenure a manager spent in her respective careers. Regressions are carried out for each month and mean coefficient estimates are reported. The returns are in percentage. The t-stats use Newey-West adjusted standard errors, and are in parentheses. Time Series average of $R^2$ are also reported. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
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<tr>
<th>Dependent Variables</th>
<th>Panel A: Defined by Highest Position</th>
<th>Panel B: Defined by Longest Tenure</th>
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<td>Government</td>
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</tr>
<tr>
<td></td>
<td>(1.88)</td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td>0.47**</td>
<td>0.41*</td>
</tr>
<tr>
<td></td>
<td>(2.59)</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>0.26**</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>(2.14)</td>
<td></td>
</tr>
<tr>
<td>Fund age</td>
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<td>0.01</td>
</tr>
<tr>
<td></td>
<td>(0.25)</td>
<td></td>
</tr>
<tr>
<td>Log (TNA)</td>
<td>0.33</td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td>(0.64)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-4.06)</td>
<td></td>
</tr>
<tr>
<td>Joint management</td>
<td>-0.34**</td>
<td>-0.21</td>
</tr>
<tr>
<td></td>
<td>(-2.04)</td>
<td></td>
</tr>
<tr>
<td>Managerial replacement</td>
<td>0.29**</td>
<td>0.74**</td>
</tr>
<tr>
<td></td>
<td>(2.00)</td>
<td></td>
</tr>
<tr>
<td>Manager tenure</td>
<td>-0.03**</td>
<td>-0.03*</td>
</tr>
<tr>
<td></td>
<td>(-2.52)</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
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<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(-0.14)</td>
<td></td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>-0.41</td>
<td>-0.68**</td>
</tr>
<tr>
<td></td>
<td>(-1.57)</td>
<td></td>
</tr>
<tr>
<td>Overseas experience</td>
<td>0.14</td>
<td>0.19*</td>
</tr>
<tr>
<td></td>
<td>(1.48)</td>
<td></td>
</tr>
<tr>
<td># of FUM</td>
<td>-0.11</td>
<td>-0.13</td>
</tr>
<tr>
<td></td>
<td>(-0.43)</td>
<td></td>
</tr>
<tr>
<td>Manager age</td>
<td>-0.04</td>
<td>-0.04</td>
</tr>
<tr>
<td></td>
<td>(-1.52)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
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<td>-0.26</td>
</tr>
<tr>
<td></td>
<td>(-0.47)</td>
<td></td>
</tr>
<tr>
<td>Obs.</td>
<td>10,264</td>
<td>10,264</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>7.62%</td>
<td>7.51%</td>
</tr>
</tbody>
</table>
This table reports the panel data estimation result of fund performances on career background dummies, fund characteristics and other manager characteristics. In Panel A, career background dummies are defined according to fund manager’s primary career background. In Panel B, we create a career background dummy for each individual career background in a manager’s career path. Regressions are carried out for each month and mean coefficient estimates are reported. The returns are in percentage. The t-stats are in parentheses. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
<thead>
<tr>
<th>Dependant Variables</th>
<th>Panel A: Primary Career Background</th>
<th>Panel B: Individual Career Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>0.16**</td>
<td>0.27*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td>0.28**</td>
<td>0.24*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>0.29**</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking</td>
<td>-0.64**</td>
<td>-0.47*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fund age</td>
<td>0.04*</td>
<td>0.01*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log (TNA)</td>
<td>0.46**</td>
<td>0.35*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expense ratio</td>
<td>-5.77***</td>
<td>-3.14***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint management</td>
<td>-0.09***</td>
<td>-0.16***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial replacement</td>
<td>0.12</td>
<td>0.14*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fund manager tenure</td>
<td>-0.02</td>
<td>-0.01</td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Fund manager age</td>
<td>-0.02*</td>
<td>-0.04*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>-0.31*</td>
<td>-0.27*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>0.06**</td>
<td>0.09*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overseas experience</td>
<td>-0.12</td>
<td>-0.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of FUM</td>
<td>-0.15</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.48</td>
<td>-0.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fund fixed effect</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Month fixed effect</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>8.33%</td>
<td>8.47%</td>
</tr>
</tbody>
</table>
Table VIII
Regression Analysis of Fund Performance and Manager Career Path Controlling for Qualities of Undergraduate Institutions

This table reports the mean coefficient estimates of the Fama-Macbeth regressions of fund performances on career background dummies, fund characteristics and other manager characteristics. In Panel A, career background dummies are defined according to fund manager’s primary career background. In Panel B, we create a career background dummy for each individual career background in a manager’s career path. High-Quality Undergraduate is a dummy variable that equals one if a manager is graduated from one of the “Project 211” universities, and zero otherwise. Regressions are carried out for each month and mean coefficient estimates are reported. The returns are in percentage. The t-stats use Newey-West adjusted standard errors, and are in parentheses. Time Series average of $R^2$ are also reported. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
<thead>
<tr>
<th>Dependant Variables</th>
<th>Panel A: Primary Career Background</th>
<th>Panel B: Individual Career Background</th>
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</thead>
<tbody>
<tr>
<td>Government</td>
<td>0.31*</td>
<td>0.24*</td>
</tr>
<tr>
<td></td>
<td>(1.82)</td>
<td>(1.75)</td>
</tr>
<tr>
<td>Investment</td>
<td>0.38**</td>
<td>0.40*</td>
</tr>
<tr>
<td></td>
<td>(2.18)</td>
<td>(1.89)</td>
</tr>
<tr>
<td>Research</td>
<td>0.32**</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td>(2.42)</td>
<td>(1.52)</td>
</tr>
<tr>
<td>Banking</td>
<td>-0.52**</td>
<td>-0.39</td>
</tr>
<tr>
<td>Fund age</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>(0.24)</td>
<td>(0.25)</td>
</tr>
<tr>
<td>Log (TNA)</td>
<td>0.32</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>(0.74)</td>
<td>(0.41)</td>
</tr>
<tr>
<td>Expense ratio</td>
<td>-6.82***</td>
<td>-6.39***</td>
</tr>
<tr>
<td></td>
<td>(-2.75)</td>
<td>(-2.08)</td>
</tr>
<tr>
<td>Joint management</td>
<td>-0.60**</td>
<td>-0.28*</td>
</tr>
<tr>
<td></td>
<td>(-2.32)</td>
<td>(-1.81)</td>
</tr>
<tr>
<td>Managerial replacement</td>
<td>0.71*</td>
<td>0.83**</td>
</tr>
<tr>
<td></td>
<td>(1.89)</td>
<td>(1.96)</td>
</tr>
<tr>
<td>Manager tenure</td>
<td>-0.02**</td>
<td>-0.03**</td>
</tr>
<tr>
<td></td>
<td>(-2.26)</td>
<td>(-2.32)</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.41</td>
<td>-0.44*</td>
</tr>
<tr>
<td></td>
<td>(-1.54)</td>
<td>(-1.83)</td>
</tr>
<tr>
<td>High-Quality Undergraduate</td>
<td>0.42</td>
<td>0.37</td>
</tr>
<tr>
<td></td>
<td>(1.18)</td>
<td>(0.88)</td>
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<tr>
<td>Postgraduate degree</td>
<td>0.13</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>(1.27)</td>
<td>(1.05)</td>
</tr>
<tr>
<td>Overseas experience</td>
<td>-0.10</td>
<td>-0.12</td>
</tr>
<tr>
<td></td>
<td>(-0.39)</td>
<td>(-0.58)</td>
</tr>
<tr>
<td># of Funds under management</td>
<td>-0.02</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(-1.57)</td>
<td>(-1.25)</td>
</tr>
<tr>
<td>Manager age</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(-0.07)</td>
<td>(-0.09)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.22</td>
<td>-0.26</td>
</tr>
<tr>
<td></td>
<td>(-0.86)</td>
<td>(-1.14)</td>
</tr>
<tr>
<td>Obs.</td>
<td>10,264</td>
<td>10,264</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>7.53%</td>
<td>7.95%</td>
</tr>
</tbody>
</table>
Table IX
Regression Analysis of Fund Performance and Manager Career Path: Individual Career Backgrounds with Categorical ID Scores

This table reports the mean coefficient estimates of the Fama-Macbeth regressions of fund performances on individual career background categorical ID scores, fund characteristics and other manager characteristics. In Panel A, career background dummies are defined according to fund manager's primary career background. In Panel B, we create a career background dummy for each individual career background in a manager's career path. Regressions are carried out for each month and mean coefficient estimates are reported. The returns are in percentage. The *-stats use Newey-West adjusted standard errors, and are in parentheses. Time Series average of $R^2$ are also reported. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
<thead>
<tr>
<th>Dependant Variables</th>
<th>Individual Career Background</th>
<th>Raw Ret</th>
<th>Excess Ret</th>
<th>CAPM Ab. Ret</th>
<th>Four-Factor Ab. Ret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>Government</td>
<td>0.13**</td>
<td>0.20*</td>
<td>0.26**</td>
<td>0.35***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.16)</td>
<td>(1.89)</td>
<td>(2.25)</td>
<td>(2.77)</td>
</tr>
<tr>
<td>Investment</td>
<td>Investment</td>
<td>0.10*</td>
<td>0.12</td>
<td>0.09</td>
<td>0.11*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.85)</td>
<td>(1.47)</td>
<td>(1.54)</td>
<td>(1.86)</td>
</tr>
<tr>
<td>Research</td>
<td>Research</td>
<td>0.14**</td>
<td>0.21*</td>
<td>0.21*</td>
<td>0.27**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.20)</td>
<td>(1.93)</td>
<td>(1.89)</td>
<td>(2.31)</td>
</tr>
<tr>
<td>Banking</td>
<td>Banking</td>
<td>-0.21**</td>
<td>-0.14</td>
<td>-0.16</td>
<td>-0.16*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-2.13)</td>
<td>(-1.41)</td>
<td>(-1.49)</td>
<td>(-1.91)</td>
</tr>
<tr>
<td>Fund age</td>
<td>Fund age</td>
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<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.19)</td>
<td>(0.22)</td>
<td>(0.28)</td>
<td>(0.35)</td>
</tr>
<tr>
<td>Log (TNA)</td>
<td>Log (TNA)</td>
<td>0.48**</td>
<td>0.26**</td>
<td>0.20**</td>
<td>0.19**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.99)</td>
<td>(2.35)</td>
<td>(2.18)</td>
<td>(2.14)</td>
</tr>
<tr>
<td>Expense ratio</td>
<td>Expense ratio</td>
<td>-2.33***</td>
<td>-2.55***</td>
<td>-2.42***</td>
<td>-2.74***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-2.76)</td>
<td>(-3.52)</td>
<td>(-3.21)</td>
<td>(-3.84)</td>
</tr>
<tr>
<td>Joint management</td>
<td>Joint management</td>
<td>-0.04</td>
<td>-0.03</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.73)</td>
<td>(-0.64)</td>
<td>(-0.40)</td>
<td>(-0.34)</td>
</tr>
<tr>
<td>Managerial replacement</td>
<td>Managerial replacement</td>
<td>0.13***</td>
<td>0.06*</td>
<td>0.03</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.20)</td>
<td>(1.77)</td>
<td>(1.41)</td>
<td>(1.49)</td>
</tr>
<tr>
<td>Manager tenure</td>
<td>Manager tenure</td>
<td>-0.01*</td>
<td>-0.02</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-1.86)</td>
<td>(-1.64)</td>
<td>(-0.95)</td>
<td>(-0.84)</td>
</tr>
<tr>
<td>Sex</td>
<td>Sex</td>
<td>-0.12*</td>
<td>-0.09*</td>
<td>-0.16*</td>
<td>-0.17*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-1.86)</td>
<td>(-1.74)</td>
<td>(-1.74)</td>
<td>(-1.86)</td>
</tr>
<tr>
<td>High-Quality Undergraduate</td>
<td>High-Quality Undergraduate</td>
<td>0.10</td>
<td>0.04</td>
<td>0.16</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.84)</td>
<td>(0.50)</td>
<td>(1.38)</td>
<td>(1.47)</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>Postgraduate degree</td>
<td>0.08</td>
<td>0.06</td>
<td>0.06</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
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<td>(0.84)</td>
<td>(0.95)</td>
<td>(1.32)</td>
</tr>
<tr>
<td>Overseas experience</td>
<td>Overseas experience</td>
<td>-0.12</td>
<td>-0.05</td>
<td>-0.03</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.49)</td>
<td>(-0.84)</td>
<td>(-0.95)</td>
<td>(-0.06)</td>
</tr>
<tr>
<td># of Funds under management</td>
<td># of Funds under management</td>
<td>-0.03*</td>
<td>-0.03*</td>
<td>-0.07</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-1.82)</td>
<td>(-1.78)</td>
<td>(-0.96)</td>
<td>(-1.24)</td>
</tr>
<tr>
<td>Manager age</td>
<td>Manager age</td>
<td>-0.07</td>
<td>-0.02</td>
<td>-0.01</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-1.26)</td>
<td>(-0.71)</td>
<td>(-0.27)</td>
<td>(-0.34)</td>
</tr>
<tr>
<td>Constant</td>
<td>Constant</td>
<td>-0.14</td>
<td>-0.16</td>
<td>-0.15</td>
<td>-0.24**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-1.08)</td>
<td>(-1.29)</td>
<td>(-1.43)</td>
<td>(-1.99)</td>
</tr>
<tr>
<td>Obs.</td>
<td>Obs.</td>
<td>10,264</td>
<td>10,264</td>
<td>10,264</td>
<td>10,264</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>Adjusted $R^2$</td>
<td>8.64%</td>
<td>9.17%</td>
<td>9.96%</td>
<td>10.15%</td>
</tr>
</tbody>
</table>
This table examines the effect of fund manager work experience on fund new money flow growth, controlling for last period fund performance and other fund and manager characteristics. Panel A reports the mean coefficient estimates of Fama-Macbeth regressions with Newey-West adjusted standard errors. Panel B reports the estimates with fund and time fixed effects. The data is in semi-annual frequency. The dependent variable, new money flow growth, is in percentage. Past performance is proxies by four-factor abnormal return. The t-stats are in parentheses. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary Background</td>
<td>Individual Background</td>
</tr>
<tr>
<td>Government</td>
<td>0.48* (1.74)</td>
<td>0.38 (1.54)</td>
</tr>
<tr>
<td>Investment</td>
<td>-1.64** (-2.04)</td>
<td>-1.39** (-2.42)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>-1.42* (-1.92)</td>
<td>-1.25** (-2.17)</td>
</tr>
<tr>
<td>Banking</td>
<td>1.19*** (2.74)</td>
<td></td>
</tr>
<tr>
<td>Past performance (t-1)</td>
<td>2.99** (2.41)</td>
<td>2.64** (2.18)</td>
</tr>
<tr>
<td>Fund age</td>
<td>-0.15 (-0.41)</td>
<td>-0.12 (-0.26)</td>
</tr>
<tr>
<td>Log (TNA)</td>
<td>1.17 (0.91)</td>
<td>1.01 (0.64)</td>
</tr>
<tr>
<td>Expense ratio</td>
<td>-7.26 (-1.12)</td>
<td>-6.86 (-0.87)</td>
</tr>
<tr>
<td>Joint management</td>
<td>1.10* (1.74)</td>
<td>0.92 (1.54)</td>
</tr>
<tr>
<td>Managerial replacement</td>
<td>-0.66 (-1.26)</td>
<td>-0.62 (-1.11)</td>
</tr>
<tr>
<td>Manager tenure</td>
<td>0.20 (0.83)</td>
<td>0.18 (0.77)</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.64 (-1.24)</td>
<td>-0.58 (-1.02)</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>0.68** (2.21)</td>
<td>0.59** (2.04)</td>
</tr>
<tr>
<td>Overseas experience</td>
<td>-1.17 (-0.92)</td>
<td>-1.19 (-1.04)</td>
</tr>
<tr>
<td># of FUM</td>
<td>-0.17 (-0.35)</td>
<td>-0.18 (-0.38)</td>
</tr>
<tr>
<td>Manager age</td>
<td>0.07* (1.87)</td>
<td>0.09* (1.94)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.99*** (3.36)</td>
<td>1.17*** (3.85)</td>
</tr>
<tr>
<td>Obs.</td>
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<td>2,456</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>5.97%</td>
<td>6.06%</td>
</tr>
</tbody>
</table>
Table XI
New Money Flow Growth and Manager Career Path: Performance Sensitivity

This table examines the effect of fund manager work experience on fund new money flow growth, controlling for last period fund performance and other fund and manager characteristics. We run separately horse-race regressions of new money flow on each primary career background against rest of the categories. We report the mean coefficient estimates of Fama-Macbeth regressions with Newey-West adjusted standard errors. The data is in semi-annual frequency. The dependent variable, new money flow growth, is in percentage. Past performance is proxies by four-factor abnormal return. The t-stats are in parentheses. *, **, and *** denote significance at the 10-, 5-, and 1-percent level, respectively.

<table>
<thead>
<tr>
<th>Dependent Variable: New Money Flow Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM ** 0.65** (2.23)</td>
</tr>
<tr>
<td>GM<em>Past performance (t-1) -1.12</em> (-1.82)</td>
</tr>
<tr>
<td>RA -0.62* (-1.68)</td>
</tr>
<tr>
<td>RA*Past performance (t-1) 1.54 (1.29)</td>
</tr>
<tr>
<td>IM -1.01* (-1.94)</td>
</tr>
<tr>
<td>IM<em>Past performance (t-1) 1.87</em> (1.73)</td>
</tr>
<tr>
<td>BN 1.46*** (2.78)</td>
</tr>
<tr>
<td>BN<em>Past performance (t-1) -1.23</em> (-1.86)</td>
</tr>
<tr>
<td>Bank affiliated funds 1.14 1.08 1.02 0.95</td>
</tr>
<tr>
<td>(0.61) (0.74) (0.68) (0.62)</td>
</tr>
<tr>
<td>Past performance (t-1) 1.65* 1.97* 1.93* 2.14**</td>
</tr>
<tr>
<td>(1.93) (1.89) (1.84) (2.23)</td>
</tr>
<tr>
<td>Fund age -0.11 -0.12 -0.11 -0.10</td>
</tr>
<tr>
<td>(-0.30) (-0.27) (-0.29) (-0.22)</td>
</tr>
<tr>
<td>Log (TNA) 0.94 0.82 0.99 1.35</td>
</tr>
<tr>
<td>(0.62) (0.41) (0.68) (0.73)</td>
</tr>
<tr>
<td>Expense ratio -6.55 -6.34 -6.82 -6.79</td>
</tr>
<tr>
<td>(-0.89) (-0.51) (-1.31) (-1.16)</td>
</tr>
<tr>
<td>Joint management 1.00 0.95 0.84 0.72</td>
</tr>
<tr>
<td>(1.44) (1.36) (1.39) (1.43)</td>
</tr>
<tr>
<td>Managerial replacement -0.55 -0.52 -0.47 -0.36</td>
</tr>
<tr>
<td>(-1.02) (-0.95) (-0.86) (-0.64)</td>
</tr>
<tr>
<td>Manager tenure 0.14 0.16 0.12 0.10</td>
</tr>
<tr>
<td>(0.69) (0.72) (0.70) (0.85)</td>
</tr>
<tr>
<td>Sex -0.57 -0.51 -0.58 -0.62</td>
</tr>
<tr>
<td>(-1.03) (-0.88) (-1.00) (-0.98)</td>
</tr>
<tr>
<td>Postgraduate degree 0.58** 0.53* 0.62* 0.64*</td>
</tr>
<tr>
<td>(2.06) (1.89) (1.91) (1.92)</td>
</tr>
<tr>
<td>Overseas experience -0.91 -1.02 -1.14 -1.25</td>
</tr>
<tr>
<td>(-0.60) (-0.77) (-1.23) (-1.46)</td>
</tr>
<tr>
<td># of Funds under management -0.13 -0.15 -0.19 -0.24</td>
</tr>
<tr>
<td>(-0.28) (-0.31) (-0.65) (-0.77)</td>
</tr>
<tr>
<td>Manager age 0.05* 0.07* 0.06* 0.05*</td>
</tr>
<tr>
<td>(1.74) (1.80) (1.74) (1.71)</td>
</tr>
<tr>
<td>Constant -0.72*** 0.81*** 0.92** -1.24***</td>
</tr>
<tr>
<td>(-2.71) (2.89) (2.48) (-3.41)</td>
</tr>
<tr>
<td>Obs. 2,456 2,456 2,456 2,456</td>
</tr>
<tr>
<td>Adjusted $R^2$ 7.20% 7.31% 7.23% 7.23%</td>
</tr>
</tbody>
</table>
Figure 1. Total Asset under Management and Number of Funds
This figure charts total asset under management (AUM) and number of funds of actively managed Chinese mutual funds from year 2002 to 2011.