## Table I
## Characteristics of Portfolios Sorted by Idiosyncratic Volatility

This table reports the characteristics of five portfolios sorted by idiosyncratic volatility relative to the Fama and French (1993) model. Portfolios are formed every month based on idiosyncratic volatility computed using daily data over the previous month. Portfolio 1 (5) is the portfolio of stocks with the lowest (highest) idiosyncratic volatilities. VW (EW) Return is the value (equally)-weighted average monthly return measured in percentage terms in the month following the portfolio formation period. Formation Period Return is the value-weighted average monthly portfolio return during the previous one month formation period. The VW-IV is the value-weighted average idiosyncratic volatilities of the portfolio in the formation period. The weights are based upon the stock's market capitalization at the end of the previous month. For comparison, we also report Ang et al.'s (2006a) Table VI Panel B in column 4; their sample period extends from 1963.07 to 2000.12. STD is the standard deviation of value-weighted average monthly returns. Size is the simple average of the log market capitalization of firms within the portfolio and B/M is the simple average book-to-market ratio. Market share percentage measures the market value of a portfolio relative to total market value of all stocks. Price is the simple average price at the end of previous month. The row "5-1" refers to the difference in monthly returns between portfolio 5 and portfolio 1. Newey-West (1987) robust *t*-statistics are reported in parentheses. The sample period is from July 1963 to December 2004.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|
| Portfolio | VW Return | EW Return | Ang et al. (2006a) [1963.07-2000.12] | Formation Period Return | VW-IV | STD | Size | B/M | MKT Share Percentage | Average Price |
| IV1 | 0.969 | 1.207 | 1.04 | 1.126 | 4.179 | 3.773 | 4.985 | 0.846 | 48.26 | 44.05 |
| IV2 | 1.075 | 1.439 | 1.16 | 1.603 | 6.967 | 4.661 | 4.932 | 0.883 | 30.41 | 28.79 |
| IV3 | 1.120 | 1.466 | 1.20 | 2.157 | 10.289 | 5.800 | 4.265 | 0.964 | 13.40 | 19.20 |
| IV4 | 0.746 | 1.300 | 0.87 | 3.016 | 14.341 | 7.340 | 3.600 | 0.947 | 5.95 | 12.85 |
| IV5 | -0.026 | 1.202 | -0.02 | 8.061 | 24.576 | 8.726 | 2.643 | 1.021 | 2.09 | 7.02 |
| IV5-IV1 | -1.000<br>(-2.95) | -0.005<br>(-0.01) | -1.06<br>(-3.10) | 6.935<br>(9.74) | | | | | | |

## Table II
## Characteristics of Portfolios Sorted by Past Performance

This table reports the characteristics of ten portfolios sorted by the value-weighted stock returns in the one-month portfolio formation period. Portfolios are formed at the end of each month and held for next one month. P1 through P10 represent winner/loser portfolios, with P1 containing past losers and P10 containing past winners. N is the average of number of stocks in the portfolio over the sample period. Holding Period Returns are the value-weighted average returns during the following one-month holding period. Both are measured in monthly percentage terms. VW (EW)-IV is the value (equally)-weighted idiosyncratic volatility of the portfolio in the formation period. The weights are based upon the stock's market capitalization at the end of the formation month. The idiosyncratic volatility is relative to the Fama and French (1993) model. We calculate the individual stock's idiosyncratic volatility using daily data in the formation month. Size is the simple average log market capitalization of firms within the portfolio. Price is the simple average price at the end of the formation month. The sample period is from July 1963 to December 2004.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|
| Portfolio | Rank | N | Formation Period VW Return | Holding Period VW Return | VW-IV (%) | EW-IV (%) | Size | Price |
| Loser | 1 | 511 | -18.409 | 1.915 | 13.073 | 20.395 | 2.990 | 9.34 |
| ↑ | 2 | 504 | -10.279 | 1.767 | 8.438 | 13.336 | 3.737 | 15.45 |
| | 3 | 500 | -6.2467 | 1.616 | 6.835 | 11.108 | 4.048 | 21.39 |
| | 4 | 488 | -3.3758 | 1.253 | 6.111 | 10.034 | 4.246 | 22.02 |
| | 5 | 457 | -1.0167 | 1.203 | 5.767 | 9.443 | 4.393 | 25.31 |
| | 6 | 455 | 1.2353 | 1.001 | 5.729 | 9.311 | 4.465 | 26.82 |
| | 7 | 456 | 3.7483 | 0.837 | 5.895 | 9.766 | 4.516 | 28.26 |
| ↓ | 8 | 476 | 7.0133 | 0.706 | 6.495 | 10.833 | 4.476 | 25.49 |
| | 9 | 493 | 12.0148 | 0.310 | 7.925 | 13.115 | 4.262 | 22.90 |
| Winner | 10 | 506 | 24.9501 | -0.154 | 13.085 | 21.764 | 3.593 | 15.65 |

## Table III
## Portfolios Sorted by Idiosyncratic Volatility and Past Performance

This table reports the characteristics of 50 portfolios sorted independently by idiosyncratic volatility and previous one month stock returns. At the beginning of each month, we sort all of stocks into five portfolios based on idiosyncratic volatility computed using daily data over the previous one month. Portfolio IV1 (IV5) is the portfolio of stocks with the lowest (highest) idiosyncratic volatility. The stocks are also independently allocated to ten portfolios based on their previous one month returns. P1 through P10 represent winners/losers portfolios, with P1 containing past losers and P10 containing past winners. The intersections of the idiosyncratic volatility-sorted portfolios and previous month return-sorted portfolios are then used to create 50 idiosyncratic volatility and past return sorted portfolios. Panel A reports the average number of stocks in the portfolio. Panel B shows the simple average monthly returns measured in percentage terms in the portfolio formation period. Panel C shows the simple average monthly returns measured in percentage terms in the next months following the portfolio formation period. Panel D reports the average of market capitalization (in million dollars) of firms within the portfolio in the portfolio formation period. The sample period spans from July 1963 to December 2004.

| Portfolio | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 | P10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Panel A: The Average Number of Stocks within Each Portfolio | | | | | | | | | | |
| IV1 | 13 | 56 | 108 | 146 | 156 | 162 | 142 | 108 | 60 | 16 |
| IV2 | 35 | 94 | 114 | 119 | 114 | 118 | 118 | 116 | 97 | 36 |
| IV3 | 77 | 117 | 109 | 99 | 87 | 89 | 93 | 104 | 115 | 71 |
| IV4 | 137 | 121 | 95 | 79 | 67 | 67 | 72 | 86 | 115 | 124 |
| IV5 | 222 | 98 | 67 | 54 | 45 | 43 | 47 | 58 | 92 | 234 |
| Panel B: The Average Monthly Returns During Formation Periods | | | | | | | | | | |
| IV1 | -14.793 | -9.844 | -6.059 | -3.271 | -0.954 | 1.303 | 3.798 | 6.889 | 11.287 | 18.183 |
| IV2 | -16.489 | -10.210 | -6.212 | -3.343 | -0.971 | 1.319 | 3.851 | 7.057 | 11.877 | 20.189 |
| IV3 | -17.699 | -10.430 | -6.258 | -3.357 | -0.958 | 1.337 | 3.892 | 7.130 | 12.218 | 22.273 |
| IV4 | -19.497 | -10.534 | -6.266 | -3.326 | -0.948 | 1.367 | 3.926 | 7.201 | 12.443 | 25.355 |
| IV5 | -24.294 | -10.601 | -6.311 | -3.324 | -0.918 | 1.421 | 3.984 | 7.268 | 12.599 | 38.237 |
| Panel C: The Average Monthly Returns During Holding Periods | | | | | | | | | | |
| IV1 | 2.882 | 1.641 | 1.358 | 1.288 | 1.211 | 1.174 | 1.086 | 0.922 | 0.678 | 0.035 |
| IV2 | 2.177 | 1.844 | 1.735 | 1.625 | 1.464 | 1.456 | 1.274 | 1.115 | 0.941 | 0.368 |
| IV3 | 2.509 | 1.938 | 1.724 | 1.481 | 1.628 | 1.332 | 1.227 | 1.195 | 0.952 | 0.775 |
| IV4 | 2.673 | 1.649 | 1.377 | 1.363 | 1.364 | 1.024 | 1.071 | 0.928 | 0.743 | 0.504 |
| IV5 | 4.295 | 1.807 | 1.017 | 0.872 | 0.658 | 0.231 | 0.404 | 0.042 | -0.180 | -0.791 |
| Panel D: The Average Market Capitalization During Formation Periods | | | | | | | | | | |
| IV1 | 94.349 | 127.996 | 136.047 | 141.034 | 149.008 | 168.679 | 199.737 | 249.635 | 273.144 | 227.466 |
| IV2 | 65.957 | 86.056 | 104.585 | 117.331 | 127.613 | 135.368 | 149.157 | 163.041 | 170.545 | 152.018 |
| IV3 | 39.291 | 50.958 | 56.940 | 62.427 | 67.222 | 71.307 | 75.189 | 82.765 | 88.943 | 89.121 |
| IV4 | 23.571 | 28.905 | 30.478 | 32.525 | 34.536 | 36.053 | 37.600 | 40.731 | 43.904 | 47.040 |
| IV5 | 9.984 | 12.466 | 13.027 | 14.354 | 15.196 | 15.705 | 15.565 | 16.379 | 16.330 | 16.929 |

## Table IV
## Portfolios Sorted by Idiosyncratic Volatility for *L/M/N* Strategies

The table reports EW and VW average returns of five idiosyncratic volatility portfolios under *L/M/N* strategies. We rank stocks into quintile idiosyncratic volatility portfolios. The column "IV5-IV1" refers to the difference in monthly returns between portfolio IV5 and portfolio IV1. Newey-West (1987) robust *t*-statistics are reported in parentheses. The sample period is from July 1963 to December 2004.

| | | Ranking on Idiosyncratic Volatility | | | | | |
|---|---|---|---|---|---|---|---|
| Strategy | | IV1 | IV2 | IV3 | IV4 | IV5 | IV5-IV1 |
| 1/1/1 | VW | 0.964 | 1.025 | 1.087 | 0.820 | 0.359 | -0.605<br>(-1.75) |
| | EW | 1.310 | 1.364 | 1.397 | 1.223 | 1.284 | -0.025<br>(-0.07) |
| 1/1/12 | VW | 0.990 | 1.008 | 1.025 | 0.942 | 0.724 | -0.266<br>(-0.80) |
| | EW | 1.303 | 1.331 | 1.336 | 1.323 | 1.614 | 0.311<br>(0.91) |
| 12/1/1 | VW | 0.967 | 1.062 | 1.089 | 0.901 | 0.727 | -0.240<br>(-0.58) |
| | EW | 1.238 | 1.345 | 1.362 | 1.290 | 1.728 | 0.491<br>(1.16) |
| 12/1/12 | VW | 0.968 | 1.046 | 1.048 | 0.891 | 0.874 | -0.094<br>(-0.23) |
| | EW | 1.234 | 1.299 | 1.358 | 1.369 | 1.842 | 0.608<br>(1.48) |

## Table V
## Characteristics of Portfolios Sorted by Idiosyncratic Volatility Controlling for Size and Past Returns

Each month, we first sort stocks based on size and then, within each size quintile, we sort stocks into five portfolios based on the formation month return. This yields 25 size-past return portfolios. Finally, within each size-past return portfolio, we sort stocks based on idiosyncratic volatility. The five idiosyncratic volatility portfolios are then averaged over each of the 25 size-return portfolios. VW Holding Period Returns denotes VW average monthly returns measured in percentage terms during the holding period. VW (EW) Formation Period Return statistics are VW (EW) average formation month returns. The VW (EW)-IV is the value (equally)-weighted idiosyncratic volatility of the portfolio in the formation period. The weights are based upon the stock's market capitalization at the end of the previous month. Size is the average of log market capitalization of firms within the portfolio and B/M is the average book-to-market ratio, both in the formation month. Price is the average price in the formation month. The row "IV5-IV1" refers to the difference in monthly returns between portfolio IV5 and portfolio IV1. Newey-West (1987) robust *t*-statistics are reported in parentheses. The sample period is from July 1963 to December 2004.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|
| IV Sorted Portfolio | VW Holding Period Returns | STD | VW Formation Period Return | EW Formation Period Return | VW-IV | EW-IV | Size | B/M |
| IV1 | 0.884 | 3.837 | 1.815 | 0.444 | 3.837 | 5.334 | 4.093 | 0.914 |
| IV2 | 1.135 | 4.281 | 1.518 | 0.755 | 5.366 | 8.454 | 4.157 | 0.932 |
| IV3 | 0.944 | 5.247 | 1.476 | 0.960 | 6.732 | 11.065 | 4.066 | 0.925 |
| IV4 | 0.998 | 5.344 | 1.563 | 1.406 | 8.589 | 14.570 | 4.000 | 0.904 |
| IV5 | 0.706 | 6.657 | 2.259 | 3.075 | 13.273 | 23.979 | 3.886 | 1.001 |
| IV5－IV1 | -0.178<br>(-0.83) | | | | | | | |

## Table VI
## Characteristics of Portfolios Sorted by the Past Returns Controlling for Size and Idiosyncratic Volatility

Each month, we first sort stocks based on size, and then, within each size quintile, we sort stocks into five portfolios on the basis of idiosyncratic volatility. This yields 25 size-IV portfolios. Finally, within each size-IV portfolio, we sort stocks based on the previous one month returns. The five past return-sorted portfolios (from P1 to P5) are then averaged over each of the 25 size-IV portfolios; P1 (P10) contains stocks with lowest (highest) return. VW Holding Period Returns denotes VW average monthly returns measured in percentage terms during the holding period. VW (EW) Formation Period Return statistics are VW (EW) average monthly returns in portfolio formation month. VW (EW)-IV is the value (equally)-weighted idiosyncratic volatility of the portfolio in the formation period. The weights are based upon the stock's market capitalization at the end of the previous month. Size is the average of the log market capitalization of firms within the portfolio and B/M is the average book-to-market ratio. Price is the average price. Size, B/M, and price are for the portfolio formation period. The row "P5-P1" refers to the difference in monthly returns between portfolio P5 and portfolio P1. Newey-West (1987) robust *t*-statistics are reported in parentheses. The sample period is from July 1963 to December 2004.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|
| Past Return Sorted Portfolio | VW Holding Period Returns | STD | VW Formation Period Return | EW Formation Period Return | VW-IV | EW-IV | Size | B/M |
| P1 | 1.243 | 5.120 | -7.989 | -13.781 | 6.784 | 13.035 | 3.937 | 0.917 |
| P2 | 1.102 | 4.733 | -2.416 | -5.014 | 6.436 | 12.433 | 3.968 | 0.900 |
| P3 | 0.828 | 5.035 | 1.117 | 0.494 | 6.473 | 12.780 | 4.061 | 0.911 |
| P4 | 0.860 | 4.463 | 4.907 | 6.623 | 6.440 | 12.795 | 4.138 | 0.969 |
| P5 | 0.657 | 4.503 | 11.344 | 19.431 | 6.651 | 13.909 | 4.093 | 0.968 |
| P5－P1 | -0.585<br>(-4.56) | | | | | | | |

## Table VII
## The Time-Series Regression

This table reports results from the time-series regressions. The dependent variable is the time-series return on the strategy (5-1) that takes a long position in the highest idiosyncratic risk portfolio and a short position in the lowest idiosyncratic risk portfolio. The independent variables include the Fama and French (1993) three factors (*RM-RF*, *SMB*, and *HML*), the momentum factor (*UMD*), and a time-series return on a strategy that takes a long position in the winner portfolio and a short position in the loser portfolio (*WML*). Winner and loser portfolios are formed based on past one month returns. Specifically, ten portfolios are formed based on the past one month returns, with P1 containing past losers and P10 containing past winners. "*WML*" is the difference between the equally-weighted average return of the past winners (P10) and the past losers (P1) during the formation period. Adjusted R-squares are reported in the last column. Newey-West (1987) robust *t*-statistics are reported in parentheses. The sample period is from July 1963 to December 2004.

| Regression models | Constant | RM-RF | SMB | HML | UMD | WML | Adjusted R-squares |
|---|---|---|---|---|---|---|---|
| 1 | -1.339 | 0.353 | 1.447 | -0.400 | | | 0.66 |
| | (-6.79) | (7.33) | (23.12) | (-5.51) | | | |
| 2 | -1.065 | 0.317 | 1.454 | -0.469 | -0.266 | | 0.68 |
| | (-5.40) | (6.74) | (23.96) | (-6.58) | (-5.71) | | |
| 3 | 0.112 | 0.357 | 1.455 | -0.386 | | -0.028 | 0.66 |
| | (0.16) | (7.46) | (23.30) | (-5.33) | | (-2.19) | |
| 4 | 0.272 | 0.322 | 1.461 | -0.460 | -0.263 | -0.026 | 0.68 |
| | (0.41) | (6.86) | (24.12) | (-6.39) | (-5.66) | (-2.08) | |

## Table VIII
### Ex Ante Relation between Return and Idiosyncratic Risk: Cross-Sectional Evidence

This table reports the average coefficients of the Fama-MacBeth cross-sectional regressions for all NYSE/AMEX/NASDAQ individual stocks over the period from July 1963 to December 2004. Panel A reports the cross-sectional regressions without expected idiosyncratic volatility as the explanatory variable. In Panel B, the expected idiosyncratic volatilities (EIV1) are the realized idiosyncratic volatility in the previous month. In Panel C, the expected idiosyncratic volatility (EIV2) is estimated by the best-fit ARIMA model based on an individual stock's realized idiosyncratic volatility over the previous 24-month period. In Panel D, the expected idiosyncratic volatilities (EIV3) is estimated by the ARIMA model based on portfolio's realized idiosyncratic volatility over the previous 36-month period where 100 portfolios are formed based on the idiosyncratic volatility of a stock in the previous month. In Panel E, the expected idiosyncratic volatility (EIV4) is estimated by the GARCH(1,1) model based on an individual stock's idiosyncratic volatility over the previous 30-month period. In Panel F, the expected idiosyncratic volatility (EIV5) is estimated by the EGARCH(1,1) model based on an individual stock's realized idiosyncratic volatility over the previous 30-month period. Beta is estimated using the 100 size/beta sorted portfolio following Fama and French (1992). Size is the log of market capitalization and B/M is the log of book-to-market in the previous month as defined by Fama and French (1992). $R_{t-1}$ is an individual stock's previous one-month return. $RR_{t-1}$ is the stock's demeaned return during the previous month. The demeaned return is the difference between an individual stock's return at month *t*-1 and the average of the stock's return over the period from *t*-36 to *t*-1. We run the cross-sectional regression every month and report the time-series averages of the coefficients. The *t*-statistics are reported in the parentheses. The *t*-statistics for the betas are adjusted using the Shanken (1992) correction factor. The *t*-statistics for the other variables are Newey and West (1987) consistent.

| Intercept | Beta | Size | B/M | EIV | $R_{t-1}$ | $RR_{t-1}$ |
|---|---|---|---|---|---|---|
| Panel A: Regression without expected idiosyncratic volatility | | | | | | |
| 2.289 | -0.004 | -0.147 | 0.381 | | -0.068 | |
| (7.66) | (-0.01) | (-3.23) | (4.90) | | (-14.02) | |
| 2.288 | 0.005 | -0.160 | 0.386 | | | -0.907 |
| (7.61) | (0.02) | (-3.75) | (5.11) | | | (-15.92) |
| Panel B: Expected idiosyncratic volatilities EIV1 | | | | | | |
| 2.505 | 0.018 | -0.188 | 0.301 | -0.019 | | |
| (8.29) | (0.08) | (-4.79) | (4.25) | (-2.44) | | |
| 2.044 | -0.007 | -0.109 | 0.384 | 0.000013 | -0.070 | |
| (6.75) | (-0.03) | (-2.83) | (5.22) | (0.15) | (-14.57) | |
| 2.123 | 0.009 | -0.132 | 0.387 | -0.00004 | | -0.912 |
| (6.81) | (0.04) | (-3.57) | (5.40) | (-0.51) | | (-16.74) |
| Panel C: Expected idiosyncratic volatilities EIV2 | | | | | | |
| 2.469 | -0.090 | -0.183 | 0.313 | -0.003 | | |
| (7.95) | (-0.43) | (-4.92) | (4.22) | (-0.25) | | |
| 2.153 | -0.040 | -0.123 | 0.386 | 0.002 | -0.072 | |
| (6.70) | (-0.173) | (-3.24) | (5.03) | (0.18) | (-14.87) | |
| 2.161 | -0.044 | -0.138 | 0.393 | 0.004 | | -0.944 |
| (6.57) | (-0.19) | (-3.79) | (5.25) | (0.29) | | (-16.57) |
| Panel D: Expected idiosyncratic volatilities EIV3 | | | | | | |
| 2.809 | -0.065 | -0.212 | 0.298 | -0.027 | | |
| (9.21) | (-0.29) | (-5.43) | (3.95) | (-3.25) | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2.281 | -0.064 | -0.124 | 0.384 | -0.006 | -0.072 | |
| (7.39) | (-0.26) | (-3.22) | (4.91) | (-0.63) | (-14.68) | |
| 2.346 | -0.068 | -0.143 | 0.391 | -0.009 | | -0.945 |
| (7.36) | (-0.28) | (-3.85) | (5.17) | (-1.00) | | (-16.60) |
| Panel E: Expected idiosyncratic volatilities EIV4 | | | | | | |
| 2.678 | 0.053 | -0.214 | 0.279 | -0.024 | | |
| (9.53) | (0.24) | (-5.48) | (4.11) | (-2.89) | | |
| 2.139 | 0.0219 | -0.130 | 0.385 | 0.003 | -0.071 | |
| (7.43) | (0.09) | (-3.35) | (5.42) | (0.37) | (-14.50) | |
| 2.310 | 0.025 | -0.162 | 0.378 | -0.006 | | -0.904 |
| (7.78) | (0.10) | (-4.25) | (5.38) | (-0.69) | | (-16.38) |
| Panel F: Expected idiosyncratic volatilities EIV5 | | | | | | |
| 2.444 | -0.032 | -0.188 | 0.307 | 0.0003 | | |
| (8.55) | (-0.13) | (-4.39) | (4.21) | (0.10) | | |
| 2.200 | 0.036 | -0.139 | 0.378 | 0.002 | -0.069 | |
| (7.56) | (0.14) | (-3.24) | (5.02) | (0.54) | (-14.32) | |
| 2.262 | 0.013 | -0.157 | 0.384 | 0.0005 | | -0.905 |
| (7.69) | (0.05) | (-3.87) | (5.18) | (0.11) | | (-15.90) |

## Table IX
## Ex Ante Relation between Return and Idiosyncratic Risk: Cross-Sectional Evidence with Winner Stocks Excluded

This table reports the average coefficients of the Fama-MacBeth cross-sectional regressions for all individual NYSE/AMEX/NASDAQ stocks over the period from July 1963 to December 2004. Each month, we exclude the 50 winner stocks that have the highest returns over the previous one month. All variables are the same as those in Table VIII. We run the cross-sectional regression every month and report the time-series averages of the coefficients. The *t*-statistics are reported in the parentheses. The *t*-statistics for the betas are adjusted using the Shanken (1992) correction factor. The *t*-statistics for the other variables are Newey and West (1987) consistent.

| Intercept | Beta | Size | B/M | EIV | $R_{t-1}$ | $RR_{t-1}$ |
|---|---|---|---|---|---|---|
| Panel A: Regression without expected idiosyncratic volatility | | | | | | |
| 2.240 | -0.001 | -0.139 | 0.379 | | -0.076 | |
| (7.47) | (-0.003) | (-3.08) | (4.88) | | (-14.59) | |
| 2.300 | 0.006 | -0.166 | 0.373 | | | -0.903 |
| (7.59) | (0.02) | (-3.91) | (4.929) | | | (-15.60) |
| Panel B: Expected idiosyncratic volatilities EIV1 | | | | | | |
| 2.404 | -0.014 | -0.179 | 0.302 | -0.0001 | | |
| (7.84) | (-0.07) | (-4.62) | (4.27) | (-1.14) | | |
| 2.028 | 0.008 | -0.105 | 0.378 | -0.00002 | -0.078 | |
| (6.57) | (0.03) | (-2.74) | (5.17) | (-0.23) | (-15.42) | |
| 2.057 | -0.007 | -0.128 | 0.379 | -0.000 | | -0.909 |
| (6.42) | (-0.03) | (-3.46) | (5.30) | (-0.06) | | (-17.03) |
| Panel C: Expected idiosyncratic volatilities EIV2 | | | | | | |
| 2.409 | -0.108 | -0.181 | 0.308 | 0.005 | | |
| (7.66) | (-0.51) | (-4.84) | (4.13) | (0.37) | | |
| 2.103 | -0.051 | -0.115 | 0.385 | 0.003 | -0.080 | |
| (6.45) | (-0.22) | (-3.01) | (4.99) | (0.21) | (-15.19) | |
| 2.109 | -0.060 | -0.136 | 0.384 | 0.007 | | -0.939 |
| (6.30) | (-0.26) | (-3.72) | (5.12) | (0.57) | | (-16.66) |
| Panel D: Expected idiosyncratic volatilities EIV3 | | | | | | |
| 2.688 | -0.092 | -0.201 | 0.297 | -0.017 | | |
| (8.72) | (-0.41) | (-5.18) | (3.94) | (-1.84) | | |
| 2.276 | -0.059 | -0.122 | 0.380 | -0.009 | -0.08 | |
| (7.27) | (-0.24) | (-3.15) | (4.84) | (-0.93) | (-15.23) | |
| 2.286 | -0.083 | -0.140 | 0.384 | -0.005 | | -0.945 |
| (7.03) | (-0.34) | (-3.76) | (5.06) | (-0.55) | | (-16.90) |
| Panel E: Expected idiosyncratic volatilities EIV4 | | | | | | |
| 2.520 | -0.018 | -0.200 | 0.293 | -0.004 | | |
| (8.94) | (-0.09) | (-5.33) | (4.40) | (-0.41) | | |
| 2.19 | 0.019 | -0.132 | 0.370 | -0.002 | -0.0780 | |
| (7.51) | (0.083) | (-3.49) | (5.28) | (-0.20) | (-15.16) | |
| 2.240 | -0.018 | -0.156 | 0.376 | 0.002 | | -0.909 |
| (7.42) | (-0.08) | (-4.26) | (5.43) | (0.16) | | (-16.67) |
| Panel F: Expected idiosyncratic volatilities EIV5 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2.46 | -0.036 | -0.196 | 0.300 | 0.005 | | |
| (8.64) | (-0.15) | (-4.60) | (4.10) | (1.33) | | |
| 2.17 | 0.024 | -0.133 | 0.373 | 0.003 | -0.077 | |
| (7.41) | (0.09) | (-3.17) | (4.94) | (0.75) | (-14.66) | |
| 2.253 | 0.004 | -0.160 | 0.375 | 0.002 | | -0.901 |
| (7.64) | (0.016) | (-3.97) | (5.05) | (0.47) | | (-16.01) |

## Table X
## Robustness Test

This table reports the average coefficients of the Fama-MacBeth cross-sectional regressions for all NYSE/AMEX/NASDAQ individual stocks over the period of July 1963 to December 2004. The variables Beta, Size, B/M, $R_{t-1}$ are the same as explained in Table VIII. FF-IV is the idiosyncratic volatility relative to the Fama-French (1993) model. CAPM-IV is the idiosyncratic volatility relative to the CAPM model. Total-IV is computed from standard deviation of the daily raw returns. We calculate the idiosyncratic volatility using daily data over the previous month. Leverage is the log of the ratio of total book value of assets to book value of equity. MOM is the cumulative return from month *t*-7 to *t*-2, where *t* is the current month. The returns of the immediate prior month (*t*-1) are excluded to avoid any spurious association between the prior month return and the current month return caused by thin trading or bid-ask spread effects (Jegadeesh (1990)). TURN is the average share turnover in the past 36 months. L-Beta represents the Pastor and Stambaugh (2003) historical liquidity beta. The *t*-statistics are reported in parentheses. The *t*-statistics for betas are adjusted using the Shanken (1992) correction factor. The *t*-statistics for other variables are Newey and West (1987) consistent.

| | NYSE/AMEX Stocks only | All Stocks | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Intercept | 1.963<br>(7.12) | 1.909<br>(5.66) | 1.869<br>(5.52) | 2.170<br>(8.18) | 2.139<br>(7.24) | 1.862<br>(6.75) | 1.999<br>(6.35) | 2.037<br>(8.36) | 2.166<br>(8.05) |
| Beta | 0.020<br>(0.010) | -0.007<br>(-0.03) | -0.007<br>(-0.03) | -0.030<br>(-0.14) | -0.060<br>(-0.27) | 0.175<br>(0.85) | 0.012<br>(0.05) | 0.108<br>(0.55) | -0.063<br>(-0.27) |
| Size | -0.083<br>(-2.38) | -0.114<br>(-3.01) | -0.110<br>(-2.86) | -0.107<br>(-2.76) | -0.128<br>(-3.32) | -0.090<br>(-2.37) | -0.106<br>(-2.70) | -0.105<br>(-2.73) | -0.118<br>(-2.98) |
| B/M | 0.295<br>(4.03) | 0.384<br>(5.18) | 0.384<br>(5.23) | 0.372<br>(4.93) | 0.360<br>(4.84) | 0.330<br>(4.68) | 0.375<br>(5.04) | 0.294<br>(3.99) | 0.344<br>(4.49) |
| $R_{t-1}$ | -0.067<br>(-12.25) | -0.070<br>(-14.52) | -0.070<br>(-14.54) | -0.071<br>(-14.97) | -0.071<br>(-14.82) | -0.074<br>(-15.52) | -0.0730<br>(-14.78) | -0.083<br>(-19.42) | -0.081<br>(-18.57) |
| FF-IV | -0.00014<br>(-1.50) | | | 0.0000288<br>(0.338) | -0.00002<br>(-0.24) | -1.37E-7<br>(-0.00) | 0.00003<br>(0.34) | 6.541 E-6<br>(0.08) | 0.0000192<br>(0.231) |
| CAPM-IV | | -0.184<br>(-0.21) | | | | | | | |
| Total-IV | | | 0.090<br>(0.10) | | | | | | |
| Leverage | | | | -0.135<br>(-2.03) | | | | -0.113<br>(-1.78) | -0.110<br>(-1.65) |
| MOM | | | | | 0.00538<br>(3.15) | | | 0.00685<br>(3.91) | 0.00661<br>(3.80) |
| TURN | | | | | | -1.960<br>(-1.451) | | -2.827<br>(-1.99) | |
| L-Beta | | | | | | | 0.007<br>(0.09) | | -0.005<br>(-0.081) |

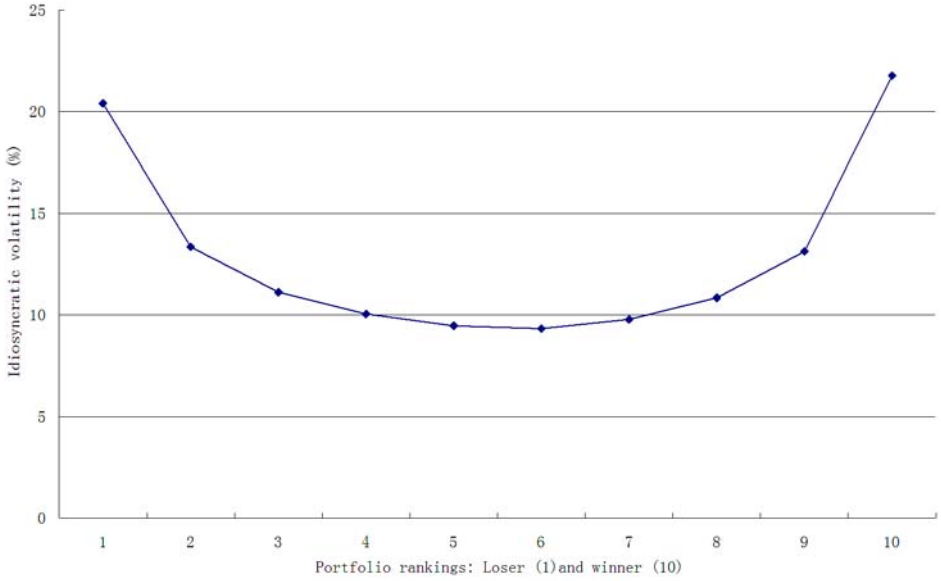


**Figure 1. Idiosyncratic Volatility for Past Performance Sorted Portfolios**

This figure plots the average percentage level of the idiosyncratic volatility for the portfolios sorted by return performance in the previous one month. Portfolio 1 (10) is the loser (winner) portfolio. The idiosyncratic volatility of a portfolio is the EW average of the idiosyncratic volatilities of all the stocks within the portfolio.

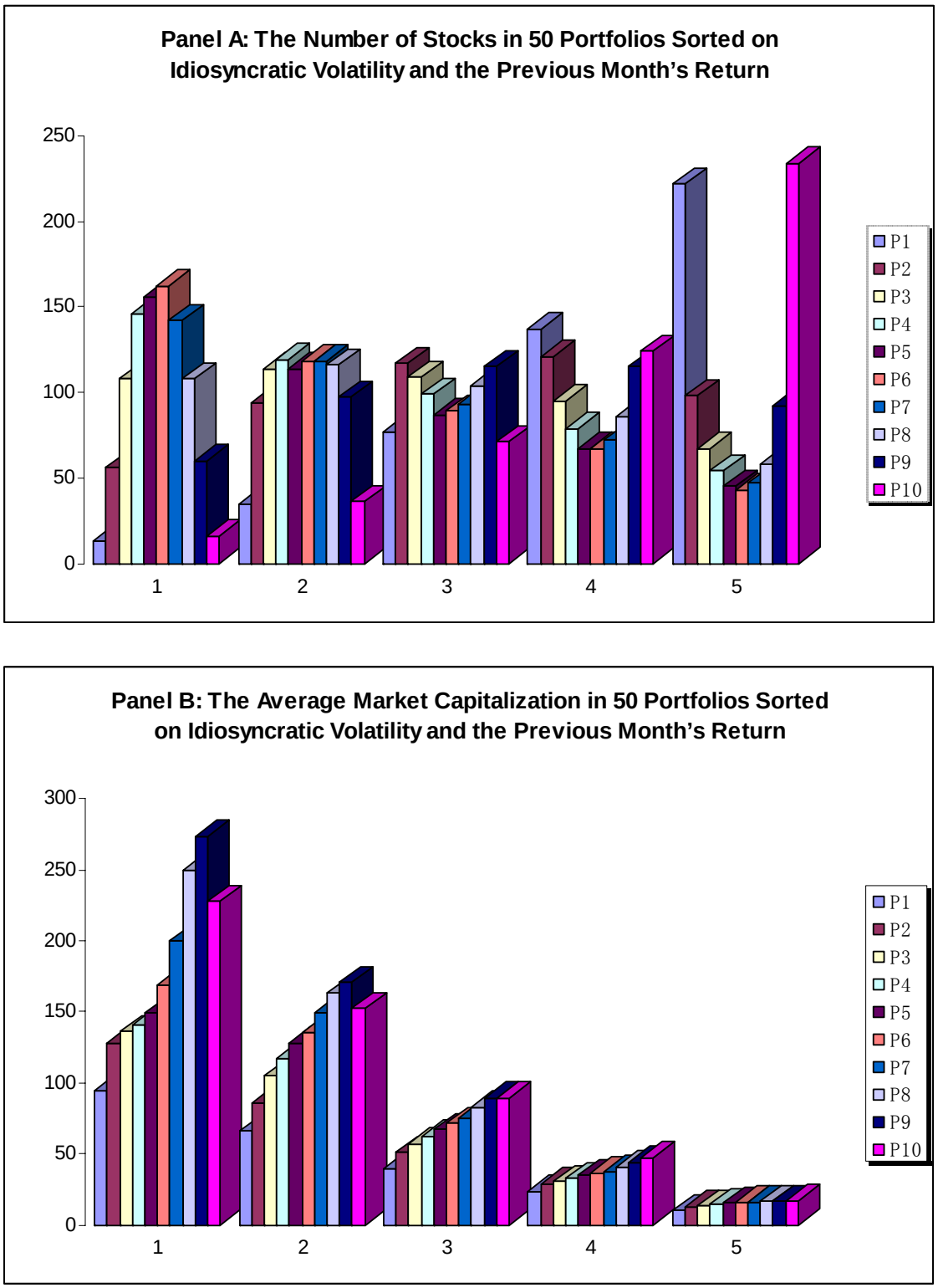


**Figure 2. The Characteristics of Idiosyncratic Volatility-Portfolio Formation Period Return=-Based Portfolios**

This figure shows the average number of stocks (Panel A) and average market capitalization (Panel B) for each of the 50 portfolios sorted independently by idiosyncratic volatility and the previous one month returns.

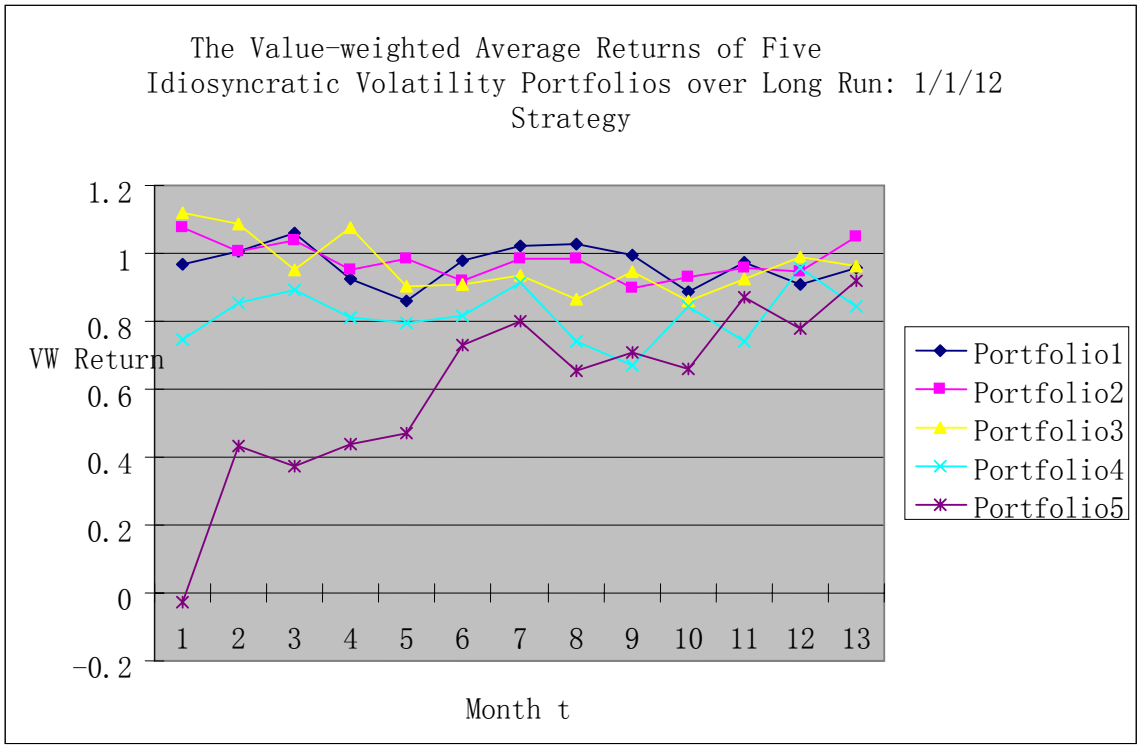


**Figure 3. Post-Formation Returns of Five Idiosyncratic Volatility Portfolios**

This Figure tracks the value-weighted average returns on five IV sorted portfolios from the first month to 13 months after the portfolios are formed. At month *t*, We form five idiosyncratic volatility portfolios based on the idiosyncratic volatility at month *t-1*, and hold these portfolios from month *t* to month *t+12*. We then calculate the value-weighted returns of the five portfolios over 13 months after they are formed. The weights are the stock market capitalization at the end of the formation period. To ensure the components of the portfolios are the same over the holding period, we do not rebalance the portfolios in the holding period once they are formed. Portfolio 1(5) is the portfolio of stocks with the lowest (highest) idiosyncratic volatility.