

**For Online Publication**  
**INTERNET APPENDIX**  
**“Benchmarking and Currency Risk”**

This appendix consists of three parts. First, it provides additional tests (Part 1; from page 1 to 11). Second, it details our construction of the various distance measures for international funds (Part 2; from page 12 to 15). Finally, when a table reported in the main text does not present the regression coefficients of the control variables in the interest of brevity (Tables 6-8), this appendix tabulates the full specifications (Part 3; page 16 to 25). In addition, we also extend Figure 1 to plot the accumulated returns of funds with high and low currency concentrations based on all the return measures and risk-adjustment methods. Figure 1 extensions are also included in Part 3.

To avoid confusion, additional tests are labeled Table IA (Internet Appendix), while the full specifications of the tables that are reported in the main text are labeled with the original table name.

## **Internet Appendix Part 1: Additional Robustness Checks**

This part of the Internet Appendix provides three additional robustness checks on the main results of our tests. In the first robustness check, we verify the direct impact of currency risk (ICVR) on fund performance by using multivariate regressions in both Fama-MacBeth and panel specifications. In the second robustness check, we show that our main tests on the relationships between performance and currency policy, reported in Table 6 by using the Fama-MacBeth specifications, are also robust to panel specification. Finally, we conduct robustness checks to determine the role of family and style affiliations in interpreting the fund-level results.

The multivariate regression of how ICVR affects fund performance is reported in Table IA1. Panel A reports the results of the Fama-MacBeth regressions. In Models 1-3, we regress the risk-adjusted total returns (MX, MX4, and MX4C) on the lagged embedded currency volatility risk (ICVR) and the lagged control variables using quarterly Fama-MacBeth specifications and tabulate the time-series averages of the cross-sectional parameters and their Newey-West t-statistics with 5 lags (to cover the potential seasonality). Models 4-6 report similar statistics for holding-based returns, and Models 7-9 report the results for the equity component of fund returns. In Panel B, panel regressions are conducted with fund and year fixed effects and standard errors clustered at the fund level.

In all the specifications, the impact of ICVR on fund performance is significantly negative. This observation is consistent with the results reported in Table 3. Furthermore, the coefficients on equity performance are of similar magnitude to those for fund total returns and holding-implied returns, confirming that the impact of currency risk on fund performance is mainly achieved through its impact on equity performance.

The panel regression results for Table 6 are reported in Table IA2. The layout of the table is similar to that of Table 6; however, we also include the equity component of fund returns as a comparison. That is, we apply risk adjustments to fund total returns, holding-implied returns, and the equity component

and report the results in Panels A, B, and C, respectively. In each panel, we further use different columns to report the various risk-adjusted performances.

The results are consistent with those reported in Table 6. Indeed, Table IA2 still displays a strong and significant correlation between currency policies and fund returns, and this result holds across the different regression models. Furthermore, the fund equity component bears the majority of the performance impact. The only difference is that the economic magnitude of the regression parameters detected by the panel regressions is smaller than that from the Fama-MacBeth specifications. However, this difference does not affect our main conclusions.

In the third step, we conduct robustness checks to determine the role of family and style affiliations in interpreting the fund-level results. We only tabulate the robustness checks based on panel regressions. The Fama-MacBeth specifications provide similar results. As a first robustness check, we test whether currency policy is coordinated at the family level. We therefore aggregate fund-level performance, policies, and characteristics at the family level by value weighting (weights are determined by fund TNAs) fund-level variables within a family, and we then apply the previous regressions to these family-level variables.

The results (reported in Table IA3) are qualitatively similar to the previous results. When the policy is considered alone, a one-standard-deviation increase in currency concentration is related to a reduction in total return performance of 56, 38, and 49 basis points and in holding-implied return performance of 62, 56, and 53 basis points for MX-, MX4-, and MX4C-adjusted returns. Note that the results, while qualitatively similar, are less economically relevant at the family level. Thus, while a portion of the currency policies are chosen at the family level, a great proportion of these policies is independently determined at the fund/manager level.

The robustness checks on how style affiliations affect fund-level panel regressions are reported in Table IA4. In addition to the fund-level variables, Panel A further controls for style-level characteristics in the regressions. For each characteristic, we construct its style-level counterpart by value weighting the

fund-level variable at the style level and include these style-level characteristics in the control variable list. Panel B allows for fixed fund effects and cluster errors at the style level. Panel C controls for fixed style-affiliation effects. The results show that that style affiliation does not affect the impact of fund-level currency policies. For example, when style-level characteristics are controlled for (Panel A), a one-standard-deviation increase in currency concentration is associated with a lower total return performance of 120, 119, and 97 basis points and a lower holding-implied return performance of 146, 138, and 112 basis points for MX-, MX4-, and MX4C-adjusted returns. The magnitude of the economic impact is similar in the other panels.

The effect of the currency policy on performance after we control for style characteristics suggests that style affiliation places constraints on mutual funds that are related to their base currencies instead of defining a universal style-level optimal currency policy that all funds within a style should follow regardless of their base currencies. The intuition underlying this result is easy to understand: the currency risk of a fund, however defined, is contingent on its base currency. Hence, among all the funds that follow the same benchmark, those that have more currency risk face more constraints and are more likely to deliver lower performance.

Note that in all our robustness checks, currency concentration always dominates local currency weight as the main currency policy to affect performance. This result further justifies the focus on currency concentration as our main currency policy in understanding the impact of currency risk on equity investments.

**Table IA1: Performance Impacts of Currency Risks**

This table reports the performance impact of currency risk in the multivariate analysis (Fama Macbeth regression in Panel A and panel regression in Panel B). In Models 1-3 of Panel A, we regress the quarterly MX-, MX4-, and MX4C-adjusted Morningstar total returns of funds on lagged embedded currency volatility risk (ICVR) and lagged control variables and tabulate the time-series averages of the cross-sectional parameters as well as their Newey-West t-statistics with 5 lags. Models 4-6 reports similar statistics for holding-based returns, and Models 7-9 report those for the equity component of fund returns. Panel B reports the results in panel specifications with time fixed effect and standard errors clustered at the fund level. Parameters with \* and \*\* are significant at the 5% and 1% levels, respectively.

Panel A: Fama Mabeth Regressions									
	Model1	Model2	Model3	Model4	Model5	Model6	Model7	Model8	Model9
	Total Returns from Morningstar			Holding Implied Returns			Equity Component of Returns		
	MX	MX4	MX4C	MX	MX4	MX4C	MX	MX4	MX4C
ICVR	-6.878*	-7.745**	-5.669**	-6.519*	-6.727**	-5.067**	-5.616*	-5.524**	-4.233**
	(-2.44)	(-4.83)	(-4.20)	(-2.42)	(-5.11)	(-4.55)	(-2.05)	(-4.08)	(-4.26)
Fund_FEE	-0.141*	-0.163**	-0.264**	0.036	0.04	-0.078	0.038	0.051	-0.025
	(-2.65)	(-3.51)	(-4.47)	-0.79	-0.97	(-1.23)	-0.75	-1.18	(-0.43)
Fund_Turnover	-0.051	-0.058**	-0.123**	-0.074*	-0.079**	-0.171**	-0.075*	-0.076**	-0.158**
	(-1.90)	(-2.74)	(-7.18)	(-2.10)	(-3.07)	(-7.22)	(-2.13)	(-3.16)	(-6.36)
Fund_AGE	0.046	0.031	0.045	0.009	0.005	0	0.013	0.011	-0.001
	-1.63	-1.47	-1.8	-0.25	-0.18	0	-0.35	-0.39	(-0.02)
Fund_TNA	0.001	0.014	-0.001	-0.003	0.006	-0.026*	-0.002	0.006	-0.022
	-0.05	-0.77	(-0.07)	(-0.13)	-0.38	(-2.48)	(-0.08)	-0.34	(-1.79)
Bmk_Currency_Concentration	0.195*	0.274**	0.191**	0.251*	0.314**	0.310**	0.202	0.247**	0.222*
	-2.03	-4.76	-3.55	-2.18	-3.4	-3.03	-1.76	-2.82	-2.63
Stock_Num	-0.076**	-0.034*	-0.001	-0.04	-0.002	0.031	-0.036	-0.003	0.031
	(-3.82)	(-2.24)	(-0.05)	(-1.20)	(-0.06)	-1.06	(-0.99)	(-0.13)	-1.16
Industry Concentration	1.089*	1.041**	1.269**	1.135	1.032*	1.369*	1.124	0.998*	1.504**
	-2.38	-3.05	-3.11	-1.95	-2.3	-2.52	-1.91	-2.21	-2.76
Stock_Concentration_Dom	1.463	0.758	-0.527	2.051	0.835	-2.427	2.09	2.047	-0.74
	-0.77	-0.49	(-0.33)	-1.42	-0.65	(-0.82)	-1.46	-1.68	(-0.23)
Stock_Concentration_Fore	-0.732	-0.592	-0.039	-0.344	-0.162	-0.264	-0.374	-0.128	-0.274
	(-1.60)	(-1.96)	(-0.09)	(-0.53)	(-0.28)	(-0.39)	(-0.58)	(-0.25)	(-0.41)
Constant	0.047	0.005	0.035	0.011	-0.009	-0.011	0.007	-0.014	0.006
	-1.39	-0.17	-1.28	-0.2	(-0.21)	(-0.29)	-0.11	(-0.33)	-0.15
Observations	69,908	69,900	69,900	69,537	69,529	69,529	69,537	69,529	69,529
R-squared	0.041	0.033	0.029	0.047	0.039	0.033	0.046	0.037	0.032
F	4.68	8.7	11.48	2.32	5.4	9.8	1.96	4.4	7.82

Panel B: Panel Regressions									
	Model1	Model2	Model3	Model4	Model5	Model6	Model7	Model8	Model9
	Total Returns from Morningstar			Holding Implied Returns			Equity Component of Returns		
	MX	MX4	MX4C	MX	MX4	MX4C	MX	MX4	MX4C
ICVR	-4.382** (-3.47)	-6.456** (-4.91)	-4.963* (-2.14)	-4.416** (-3.72)	-6.140** (-4.86)	-5.836* (-2.30)	-3.379** (-2.80)	-4.774** (-3.78)	-4.306 (-1.70)
Fund_FEE	-0.158** (-4.51)	-0.178** (-5.09)	-0.284** (-4.32)	0.042 (-1.19)	0.038 (-1.11)	-0.071 (-0.98)	0.042 (-1.18)	0.046 (-1.31)	-0.014 (-0.19)
Fund_Turnover	-0.053** (-2.99)	-0.067** (-3.84)	-0.131** (-3.76)	-0.068** (-3.64)	-0.078** (-4.13)	-0.168** (-4.33)	-0.070** (-3.75)	-0.076** (-4.06)	-0.156** (-4.10)
Fund_AGE	0.026 (-1.06)	0.016 (-0.68)	0.039 (-0.84)	0.004 (-0.17)	0.001 (-0.06)	0.017 (-0.31)	0.013 (-0.47)	0.01 (-0.39)	0.019 (-0.35)
Fund_TNA	0.020* (-1.98)	0.032** (-3.14)	0.008 (-0.4)	0.01 (-0.85)	0.018 (-1.55)	-0.027 (-1.09)	0.01 (-0.81)	0.018 (-1.52)	-0.025 (-1.01)
Bmk_Currency_Concentration	0.184** (-2.86)	0.283** (-4.43)	0.191 (-1.61)	0.266** (-4.24)	0.340** (-5.42)	0.352** (-2.72)	0.217** (-3.43)	0.272** (-4.32)	0.252* (-1.97)
Stock_Num	-0.076** (-3.27)	-0.034 (-1.44)	0.01 (-0.24)	-0.041 (-1.74)	-0.005 (-0.20)	0.042 (-0.89)	-0.042 (-1.74)	-0.013 (-0.55)	0.039 (-0.82)
Industry Concentration	1.063** (-4.79)	1.034** (-5.23)	1.206** (-2.93)	1.003** (-4.55)	0.962** (-4.68)	1.190** (-2.72)	0.970** (-4.39)	0.905** (-4.44)	1.310** (-2.99)
Stock_Concentration_Dom	0.156 (-0.11)	-0.2 (-0.16)	0.518 (-0.25)	2.925 (-1.53)	1.117 (-0.76)	0.388 (-0.11)	3.568 (-1.95)	2.642 (-1.81)	2.875 (-0.86)
Stock_Concentration_Fore	-0.873** (-4.15)	-0.669** (-3.23)	-0.092 (-0.24)	-0.678* (-2.27)	-0.519 (-1.85)	-0.465 (-0.82)	-0.630* (-2.10)	-0.425 (-1.50)	-0.431 (-0.76)
Constant	0.018 (-0.46)	-0.012 (-0.30)	0.034 (-0.47)	-0.017 (-0.45)	-0.024 (-0.64)	-0.012 (-0.15)	-0.024 (-0.63)	-0.03 (-0.77)	0.002 (-0.03)
Observations	69,908	69,900	69,900	69,537	69,529	69,529	69,537	69,529	69,529
R-squared	0.008	0.01	0.011	0.007	0.008	0.008	0.007	0.007	0.008
F	10.62	15.39	6.1	8.67	10.26	4.07	7.78	9	3.56

**Table IA2: Performance Impacts of Currency Concentration in Panel Regressions**

This table reports the performance impact of currency concentration according to panel regressions. In Panel A, we regress the risk-adjusted Morningstar total returns of funds on lagged currency concentration and lagged control variables. Panels B and C report similar statistics for holding-implied returns and the equity component of fund returns, respectively. We control for the time fixed effect and estimate standard errors clustered at the fund level. Parameters with \* and \*\* are significant at the 5% and 1% levels, respectively.

Panel A: Total Returns from Morningstar						
	Model1	Model2	Model3	Model4	Model5	Model6
	MX	MX4	MX4C	MX	MX4	MX4C
Currency Concentration	-1.042** (-7.10)	-0.998** (-7.48)	-0.693** (-3.08)	-1.088** (-7.14)	-1.070** (-7.68)	-0.855** (-3.69)
Local Currency Weight	0.083 (0.98)	0.113 (1.40)	-0.049 (-0.32)	0.003 (0.03)	0.052 (0.66)	-0.141 (-0.92)
Fund_FEE	-0.141** (-3.92)	-0.167** (-4.68)	-0.281** (-4.29)	-0.158** (-4.56)	-0.177** (-5.08)	-0.284** (-4.34)
Fund_Turnover	-0.055** (-3.07)	-0.070** (-3.97)	-0.136** (-3.85)	-0.051** (-2.91)	-0.066** (-3.77)	-0.129** (-3.73)
Fund_AGE	0.041 (1.66)	0.031 (1.30)	0.051 (1.06)	0.034 (1.41)	0.024 (1.06)	0.043 (0.91)
Fund_TNA	-0.002 (-0.17)	0.015 (1.55)	-0.005 (-0.26)	0.015 (1.47)	0.027** (2.69)	0.007 (0.33)
Stock_Num				0.888** (4.10)	0.898** (4.61)	1.108** (2.75)
Industry Concentration				-0.058* (-2.49)	-0.018 (-0.76)	0.025 (0.57)
Stock_Concentration_Dom				1.431 (0.97)	0.809 (0.64)	2.382 (1.22)
Stock_Concentration_Fore				0.010 (0.04)	0.173 (0.74)	0.577 (1.40)
Bmk_Currency_Concentration	0.065 (0.92)	0.176* (2.46)	0.073 (0.53)	-0.014 (-0.20)	0.100 (1.37)	-0.033 (-0.24)
Constant	-0.041 (-1.26)	-0.109** (-3.26)	-0.032 (-0.51)	-0.022 (-0.67)	-0.091** (-2.72)	-0.007 (-0.12)
Observations	69,923	69,915	69,915	69,908	69,900	69,900
R-squared	0.008	0.009	0.008	0.01	0.013	0.013
F	12.78	18.59	6.83	12.52	16.63	6.07

Panel B: Holding Implied Returns						
	Model1	Model2	Model3	Model4	Model5	Model6
	MX	MX4	MX4C	MX	MX4	MX4C
Currency Concentration	-1.193**	-1.133**	-0.903**	-1.291**	-1.239**	-0.948**
	(-7.48)	(-7.78)	(-3.30)	(-8.14)	(-8.61)	(-3.45)
Local Currency Weight	0.079	0.027	0.079	-0.052	-0.064	0.006
	(1.08)	(0.36)	(0.50)	(-0.67)	(-0.86)	(0.04)
Fund_FEE	0.047	0.039	-0.075	0.041	0.038	-0.070
	(1.29)	(1.11)	(-1.03)	(1.16)	(1.11)	(-0.97)
Fund_Turnover	-0.070**	-0.081**	-0.173**	-0.066**	-0.076**	-0.167**
	(-3.75)	(-4.28)	(-4.44)	(-3.61)	(-4.12)	(-4.31)
Fund_AGE	0.022	0.016	0.029	0.013	0.009	0.024
	(0.82)	(0.62)	(0.52)	(0.51)	(0.37)	(0.43)
Fund_TNA	-0.011	0.004	-0.033	0.004	0.014	-0.030
	(-0.91)	(0.36)	(-1.38)	(0.32)	(1.16)	(-1.22)
Stock_Num				0.781**	0.786**	1.073*
				(3.63)	(3.90)	(2.48)
Industry Concentration				-0.018	0.016	0.057
				(-0.78)	(0.70)	(1.18)
Stock_Concentration_Dom				4.807*	3.055*	1.552
				(2.45)	(2.11)	(0.42)
Stock_Concentration_Fore				0.370	0.462	0.274
				(1.17)	(1.56)	(0.46)
Bmk_Currency_Concentration	0.102	0.163*	0.252	0.012	0.081	0.172
	(1.57)	(2.44)	(1.74)	(0.18)	(1.19)	(1.17)
Constant	-0.072*	-0.104**	-0.102	-0.046	-0.081*	-0.081
	(-2.11)	(-3.04)	(-1.43)	(-1.34)	(-2.37)	(-1.13)
Observations	69,538	69,530	69,530	69,537	69,529	69,529
R-squared	0.007	0.008	0.007	0.009	0.01	0.009
F	12.91	14.32	5.70	13.11	13.85	4.30



Panel C: Equity Component of Returns						
	Model1	Model2	Model3	Model4	Model5	Model6
	MX	MX4	MX4C	MX	MX4	MX4C
Currency Concentration	-0.995**	-0.917**	-0.770**	-1.065**	-1.010**	-0.803**
	(-6.14)	(-6.27)	(-2.83)	(-6.55)	(-6.83)	(-2.91)
Local Currency Weight	0.099	0.093	0.145	-0.040	-0.017	0.022
	(1.35)	(1.27)	(0.92)	(-0.52)	(-0.23)	(0.13)
Fund_FEE	0.047	0.048	-0.018	0.041	0.046	-0.013
	(1.29)	(1.34)	(-0.24)	(1.14)	(1.31)	(-0.18)
Fund_Turnover	-0.072**	-0.078**	-0.161**	-0.068**	-0.074**	-0.155**
	(-3.85)	(-4.19)	(-4.22)	(-3.73)	(-4.05)	(-4.09)
Fund_AGE	0.028	0.024	0.031	0.020	0.017	0.025
	(1.03)	(0.92)	(0.56)	(0.76)	(0.68)	(0.46)
Fund_TNA	-0.010	0.003	-0.033	0.004	0.014	-0.028
	(-0.83)	(0.24)	(-1.39)	(0.36)	(1.14)	(-1.15)
Stock_Num				0.783**	0.755**	1.198**
				(3.59)	(3.71)	(2.75)
Industry Concentration				-0.023	0.004	0.052
				(-0.95)	(0.18)	(1.08)
Stock_Concentration_Dom				5.101**	3.999**	3.744
				(2.68)	(2.68)	(1.07)
Stock_Concentration_Fore				0.238	0.379	0.204
				(0.75)	(1.25)	(0.34)
Bmk_Currency_Concentration	0.096	0.158*	0.203	0.010	0.077	0.110
	(1.45)	(2.34)	(1.41)	(0.15)	(1.12)	(0.75)
Constant	-0.069*	-0.100**	-0.073	-0.044	-0.077*	-0.047
	(-1.98)	(-2.84)	(-1.03)	(-1.26)	(-2.18)	(-0.66)
Observations	69,538	69,530	69,530	69,537	69,529	69,529
R-squared	0.007	0.007	0.006	0.008	0.009	0.009
F	10.03	10.90	4.63	10.50	10.95	3.79

**Table IA3: Robustness Checks on Family Affiliations**

This table reports the results of a panel regression in which risk-adjusted family performance is regressed on family currency concentration and a set of family-level control variables, including the family fee, age, TNA value, turnover, and degree of concentration in domestic and foreign stocks, as well as the number of stocks in its portfolio and the degree of currency concentration of the style to which the fund belongs. Family characteristics are constructed as the TNA-weighted average of fund characteristics for the funds of a family. We further control for family and time fixed effects and cluster standard errors at the family level. We then report the parameters and robust t-statistics for family performance computed from fund total returns in Models 1-3 and those based on holding-implied returns in Models 4-6. Parameters with \* and \*\* are significant at the 5% and 1% levels, respectively.

	Model1	Model2	Model3	Model4	Model5	Model6
	MX	MX4	MX4C	MX	MX4	MX4C
Currency Concentration	-1.136*	-0.785**	-1.025**	-1.283*	-1.174**	-1.109**
	(-2.37)	(-3.14)	(-3.45)	(-2.49)	(-4.00)	(-3.32)
Local Currency Weight	0.086	0.026	-0.116	0.173	0.121	0.398**
	-0.65	-0.21	(-0.74)	-1.36	-1.09	-2.71
Fund_FEE	-0.128	-0.101	-0.263*	0.129	0.125	0.061
	(-1.65)	(-1.35)	(-2.67)	-1.76	-1.85	-0.88
Fund_Turnover	-0.067*	-4.00E-02	-0.072*	-0.055*	-0.066**	-0.182**
	(-2.55)	(-1.67)	(-2.42)	(-2.21)	(-3.73)	(-8.38)
Fund_AGE	0.013	0.071	0.11	0.013	0.026	0.193*
	-0.4	-2	-1.97	-0.22	-0.82	-2.61
Fund_TNA	0.014	0.034	0.008	0	0.004	-0.062*
	-0.44	-1.53	-0.38	(-0.01)	-0.18	(-2.42)
Bmk_Currency_Concentration	-0.056	0.115	-0.093	0.008	0.137*	0.262*
	(-0.50)	-1.21	(-1.09)	-0.11	-2.48	-2.61
Stock_Num	-0.041	-0.001	-0.019	-0.049	0.016	-0.017
	(-0.98)	(-0.04)	(-0.36)	(-0.82)	-0.38	(-0.27)
Industry Concentration	1.370*	1.182*	1.653**	1.11	0.81	1.491*
	-2.08	-2.35	-2.8	-1.51	-1.35	-2.11
Stock_Concentration_Dom	-4.035	-5.22	-4.632	-2.66	-1.874	-2.993
	(-1.28)	(-1.90)	(-1.30)	(-0.68)	(-0.67)	(-0.78)
Stock_Concentration_Fore	-0.133	-0.434	0.995	-0.136	0.306	0.472
	(-0.16)	(-0.87)	-1.49	(-0.18)	-0.54	-0.85
Constant	0.006	-0.128**	-0.034	-0.008	-0.099*	-0.149**
	-0.12	(-2.69)	(-0.53)	(-0.15)	(-2.33)	(-3.78)
Observations	18,150	18,150	18,150	18,150	18,150	18,150
R-squared	0.067	0.053	0.047	0.08	0.064	0.055
F	2.078	2.927	3.864	1.778	4.01	10.44

**Table IA4: Robustness Checks on Style Affiliations**

This table presents robustness checks to determine the role of style affiliations in interpreting the fixed-effect panel regressions when fund performance is regressed on family currency concentration and a set of control variables, including the family fee, age, TNA value, turnover, and degree of concentration in domestic and foreign stocks, as well as the number of stocks in its portfolio and the degree of currency concentration of the style to which the fund belongs. More specifically, Panel A controls for style-level characteristics, Panel B allows for fixed effects at the fund level but clustering effects at the style affiliation level, and Panel C controls for fixed effects at the style affiliation level. Each model reports the parameters and robust t-statistics for fund performance computed from holding-based returns and total returns. To save space, we only tabulate the parameters for currency concentration. Parameters with \* and \*\* are significant at the 5% and 1% levels, respectively.

Panel A: Style Level Control Variables						
	MX	MX4	MX4C	MX	MX4	MX4C
Currency Concentration	-1.125**	-1.116**	-0.909**	-1.375**	-1.299**	-1.052**
	(-10.31)	(-12.47)	(-8.93)	(-10.18)	(-11.64)	(-8.16)
Panel B: Error Clustered at Style						
	MX	MX4	MX4C	MX	MX4	MX4C
Currency Concentration	-1.088**	-1.070**	-0.855**	-1.291**	-1.239**	-0.948**
	(-4.28)	(-4.20)	(-3.55)	(-6.20)	(-6.43)	(-4.41)
Panel C: Style Fixed Effect						
	MX	MX4	MX4C	MX	MX4	MX4C
Currency Concentration	-1.160**	-1.106**	-0.970**	-1.432**	-1.286**	-1.086**
	(-10.03)	(-11.63)	(-8.99)	(-9.96)	(-10.81)	(-7.93)

## **Internet Appendix Part 2: Measures of Distance**

In the text we have used some proxies for geographic, cultural, industry and economic distance. The idea is based on the previous findings showing that a higher distance from an asset reduces the information about it and therefore the incentive to invest in it, twisting the currency allocation. For example, Coval and Moskowitz (1999) and Grinblatt and Keloharju (2001) show that geographic proximity is positively correlated with investor holdings in a firm's equity and interpret it in terms of better information about the stock. Therefore, the distance between the fund and the stocks that the benchmark would require it to invest affects the informational and operational advantage of the fund. Indeed, a style that requires investment in geographically, culturally and legally "distant" stocks puts the fund at an informational disadvantage vis-à-vis its peers in the style who are closer to the style-benchmark stocks. This raises the incentives of the fund to diverge from the benchmark and to concentrate on a few "closer" stocks and therefore on a small number of related currencies.

For example, a US-located pan-European fund is at disadvantage in investing in continental and especially Eastern European stocks compared to local European funds. It should therefore tilt its portfolio more towards UK stocks. A common language, old investment habits and a shared cultural and legal heritage, as well as closer geographical proximity, increase the familiarity in such investment. Concentration in UK stocks will require a better hedging of the pound/dollar exchange rate and therefore a higher concentration in the currency that can help such a hedge. The higher (perceived) information on the payoff of UK stocks helps to define the future stock/currency correlation. In contrast, funds closer to the stocks of the benchmark – European funds – will not need to concentrate on a limited number of closer stocks and will therefore have less need to resort to the currency portfolio to hedge the equity risk. In this case, a higher diversification across the main currency involved (British pound, Eastern European currencies, ruble, Turkish lira) would help reduce the currency risk in the portfolio.

We use alternative dimensions of distance. Geographic distance between a stock and a fund is based on Sarkissian and Schill (2004). More specifically, we compute the distance between a fund and its benchmark holding as the benchmark holding value-weighted average of the geographic distances between benchmark stocks and the domicile country of the mutual fund. The weight is the representation of the stock in the benchmark portfolio and distance is constructed as the great-circle distance (1,000 kilometers) - between the respective capital cities of the two countries. The mean and standard deviation of the measure are 4.37 and 3.445 thousands of kilometers respectively. These compare with 7.98 and 5.12 thousand km for the average distance between the two markets of dual listed stocks in Sarkissian and Schill (2004).<sup>1</sup> The distances between stocks and mutual funds are smaller because many mutual funds in our sample invest in domestic stocks that have a distance of zero.

The definition of cultural distance relies on the findings of Grinblatt and Keloharju (2001) that investors are more likely to trade stocks of firms that share the investor's language and cultural background. The information flow is expected to be greater between countries with the same language or historical (e.g. colonial) ties. We therefore define cultural distance between a stock and a fund as zero if the languages of the two countries (i.e., the stock listing country and the fund domicile country) are the same or the two countries had a colonial relation and 1 otherwise. Then, for each fund, we construct cultural distance as the value-weighted average of the cultural distance between benchmark stocks and the mutual fund domicile. The weight is the representation of the stock in the benchmark portfolio. The higher the value of this measure, the larger is the distance. The mean and standard deviation of this measure are 0.498 and 0.4199. This means that, on average, half of the portfolio holdings of the international fund are invested in a country that does not share the same cultural heritage as the asset manager.

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<sup>1</sup> The numbers are computed from the sample of host-home country pair distance from Sarkissian and Schill (2004). They suggest that the average great circle distance between any two of the 44 countries they study is 7.98 thousand km.

To capture the familiarity due to a common industrial base, Sarkissian and Schill (2004) create an industry similarity variable. Industry proximity is the correlation of the ranked industry distribution of firms listed overseas between each pair of countries (Sarkissian and Schill (2004)). They find that firms prefer to list in those countries that have a similar industrial base to their home country. We obtain the industry proximity data made public by Sarkissian and Schill (2004), and calculate the industry distance between two countries as  $1 - \text{industry proximity}$ . We define the distance between the fund domicile and its benchmark portfolio as the value weighted distance between the stock's base country and the fund's domicile, where the value weight is derived from the benchmark portfolio. The average industry distance is 0.634. These compare with 0.807 for the industry distance implied by the data of Sarkissian and Schill (2004). Our measure is much smaller because mutual funds assign a large part of their portfolios to domestic stocks, which reduce the distance.

Economic distance is based on the findings of Kang and Stulz (1997), and Dahlquist and Robertsson (2001). They observe that foreign investors tend to hold larger stakes in firms that produce tradable output, and suggest that trade provides opportunities for increased information flow. For example, US investors are more likely to invest in Sony than Japan Telecom because they are more familiar with Sony's products. We use data from the 1996 *International Trade Statistics Yearbook* for each stock and define economic proximity as the percentage of the stock-listing country's exports going to the domicile country of the fund. Intuitively, if the value is low, the domicile country of the fund and the country where the stock is listed are less connected. The mean and standard deviations of the measure are 10.29% and 6.84%. These compare with 1.6% and 4.99% for the economic proximity between two countries computed from the data of Sarkissian and Schill (2004). Again, the economic proximity in our sample is much larger because mutual funds tend to hold domestic stocks, which are assumed to have an economic proximity of 100% in our sample, and stocks from more economically connected countries.

We further define our measure of economic distance as the negative of economic proximity, so that a higher value of the measure means larger distance. Fund economic distance is then defined as the benchmark holding value-weighted average of the economic distance between the benchmark stocks and the domicile country of the mutual fund. As before, the weight is the representation of the stock in the benchmark portfolio. In all these variables the use of the weights of the benchmark portfolio has two main advantages. First, the weights are more exogenous with respect to the fund choice. Second, they provide a better sense of the constraints imposed upon the fund by the style affiliation.

## Internet Appendix Part 3: Full Specifications of Reported Tables

**Table 6 Performance Impacts of Currency Concentration in Fama-MacBeth Regressions (Full Specifications)**

This table reports the performance impact of currency concentration according to Fama-MacBeth regressions. In Panel A, we regress MX-, MX4-, and MX4C-adjusted quarterly Morningstar total returns (in %) of the funds on the lagged currency concentration and the lagged control variables and tabulate the time-series averages of the cross-sectional parameters as well as their Newey-West t-statistics with 5 lags. Panel B reports the result of the holding-implied returns. Panels C and D report the results of similar tests using the US and non-US subsamples for the Morningstar total returns and holding-implied returns, respectively. Parameters with \* and \*\* are significant at the 5% and 1% levels, respectively.

Panel A: Total Returns from Morningstar						
	Model1	Model2	Model3	Model4	Model5	Model6
	MX	MX4	MX4C	MX	MX4	MX4C
Currency Concentration	-1.169** (-3.26)	-1.061** (-5.44)	-0.802** (-3.25)	-1.292** (-3.30)	-1.156** (-6.02)	-0.968** (-4.29)
Local Currency Weight	0.097 (1.39)	0.107 (1.32)	-0.086 (-0.88)	-0.027 (-0.32)	0.016 (0.17)	-0.167 (-1.62)
Fund_FEE	-0.100 (-1.61)	-0.136* (-2.50)	-0.242** (-3.39)	-0.133* (-2.50)	-0.158** (-3.28)	-0.262** (-4.31)
Fund_Turnover	-0.048 (-1.71)	-0.057* (-2.52)	-0.126** (-7.02)	-0.045 (-1.67)	-0.054* (-2.41)	-0.118** (-6.72)
Fund_AGE	0.067 (1.91)	0.047* (2.10)	0.059 (2.00)	0.054 (1.85)	0.040 (1.94)	0.048 (1.91)
Fund_TNA	-0.023 (-0.81)	-0.003 (-0.17)	-0.018 (-1.21)	-0.001 (-0.05)	0.011 (0.66)	-0.001 (-0.06)
Bmk_Currency_Concentration	0.031 (0.47)	0.126 (1.59)	0.029 (0.43)	-0.064 (-0.92)	0.044 (0.52)	-0.077 (-1.01)
Stock_Num				0.829 (1.97)	0.864* (2.60)	1.111** (2.90)
Industry Concentration				-0.056** (-2.98)	-0.018 (-1.27)	0.013 (0.69)
Stock_Concentration_Dom				4.287 (1.76)	2.759 (1.36)	2.388* (2.21)
Stock_Concentration_Fore				0.375 (0.73)	0.348 (1.21)	0.766* (2.03)
Constant	-0.027 (-1.02)	-0.095** (-3.11)	-0.027 (-1.01)	0.000 (-0.02)	-0.074* (-2.47)	-0.001 (-0.03)
Observations	69,923	69,915	69,915	69,908	69,900	69,900
R-squared	0.033	0.024	0.019	0.052	0.04	0.034
F	3.23	7.28	11.11	3.70	6.28	9.75



Panel B: Holding Implied Returns						
	Model1	Model2	Model3	Model4	Model5	Model6
	MX	MX4	MX4C	MX	MX4	MX4C
Currency Concentration	-1.334*	-1.181**	-1.028*	-1.455**	-1.324**	-1.100**
	(-2.65)	(-4.07)	(-2.63)	(-3.01)	(-5.01)	(-3.16)
Local Currency Weight	0.058	0.005	0.025	-0.078	-0.100	0.001
	(0.94)	(0.06)	(0.21)	(-0.88)	(-1.16)	(0.01)
Fund_FEE	0.069	0.056	-0.068	0.046	0.045	-0.079
	(1.30)	(1.14)	(-1.01)	(1.04)	(1.07)	(-1.25)
Fund_Turnover	-0.070	-0.078**	-0.171**	-0.066	-0.073**	-0.164**
	(-1.94)	(-2.95)	(-7.34)	(-1.88)	(-2.83)	(-7.23)
Fund_AGE	0.026	0.017	0.010	0.015	0.012	0.006
	(0.64)	(0.55)	(0.22)	(0.43)	(0.42)	(0.13)
Fund_TNA	-0.026	-0.011	-0.038**	-0.006	0.003	-0.028*
	(-1.13)	(-0.65)	(-2.93)	(-0.29)	(0.20)	(-2.34)
Bmk_Currency_Concentration	0.061	0.118	0.203	-0.051	0.017	0.108
	(0.65)	(1.48)	(1.77)	(-0.47)	(0.19)	(0.91)
Stock_Num				0.836	0.800	1.146*
				(1.55)	(1.83)	(2.29)
Industry Concentration				-0.012	0.021	0.046
				(-0.40)	(0.96)	(1.79)
Stock_Concentration_Dom				5.194*	3.696*	-1.226
				(2.40)	(2.12)	(-0.46)
Stock_Concentration_Fore				0.898	0.930	0.666
				(1.79)	(1.82)	(1.29)
Constant	-0.059	-0.088	-0.086	-0.023	-0.059	-0.061
	(-1.03)	(-1.73)	(-1.61)	(-0.39)	(-1.13)	(-1.13)
Observations	69,538	69,530	69,530	69,537	69,529	69,529
R-squared	0.034	0.024	0.02	0.063	0.05	0.042
F	2.21	4.22	10.52	2.41	4.35	7.31

Panel C: Subsamples for Total Returns from Morningstar

	US Funds			Non-US Funds		
	Model1 MX	Model2 MX4	Model3 MX4C	Model4 MX	Model5 MX4	Model6 MX4C
Currency Concentration	-2.819** (-3.04)	-2.389** (-3.76)	-2.193** (-2.74)	-1.066** (-2.72)	-0.831** (-3.17)	-0.741** (-2.80)
Local Currency Weight	0.358 (1.53)	0.216 (1.15)	-0.070 (-0.19)	0.131 (1.56)	0.192** (2.69)	0.141 (1.90)
Fund_FEE	-0.098 (-1.57)	-0.116 (-1.72)	-0.034 (-0.52)	-0.148** (-2.89)	-0.199** (-4.49)	-0.361** (-6.68)
Fund_Turnover	-0.201** (-3.93)	-0.154** (-3.19)	-0.265** (-6.36)	-0.016 (-0.63)	-0.047* (-2.10)	-0.117** (-5.32)
Fund_AGE	-0.030 (-0.61)	-0.014 (-0.40)	-0.003 (-0.06)	0.031 (1.06)	0.036 (1.36)	0.005 (0.23)
Fund_TNA	-0.003 (-0.14)	-0.003 (-0.16)	0.034 (1.90)	0.015 (0.79)	0.027 (1.68)	0.031 (1.71)
Bmk_Currency_Concentration	-0.006 (-0.03)	-0.256 (-1.45)	-0.479** (-2.86)	0.082 (1.21)	0.203** (2.79)	0.074 (0.98)
Stock_Num	1.496* (2.67)	1.285* (2.67)	2.140** (3.94)	-0.349 (-1.08)	-0.487 (-1.70)	-1.658** (-4.69)
Industry Concentration	0.045 (0.89)	0.030 (1.07)	-0.016 (-0.63)	-0.076* (-2.43)	-0.030 (-0.92)	0.032 (0.69)
Stock_Concentration_Dom	7.993 (0.71)	4.561 (0.74)	-4.200 (-0.54)	7.163* (2.12)	8.598** (2.98)	10.562** (4.09)
Stock_Concentration_Fore	3.394 (0.88)	1.484 (0.58)	6.299 (1.71)	0.379 (0.62)	0.714 (1.77)	2.283** (6.81)
Constant	-0.064 (-1.47)	-0.016 (-0.40)	0.041 (1.01)	-0.077 (-1.81)	-0.155** (-3.38)	-0.024 (-0.47)
Observations	16,365	16,365	16,365	40,160	40,152	40,152
R-squared	0.085	0.069	0.061	0.024	0.021	0.024
F	3.56	3.64	7.21	3.06	6.37	15.80

Panel D: Subsamples for Holding Implied Returns

	US Funds			Non-US Funds		
	Model1 MX	Model2 MX4	Model3 MX4C	Model4 MX	Model5 MX4	Model6 MX4C
Currency Concentration	-2.027** (-3.08)	-1.999** (-4.16)	-1.400** (-2.69)	-1.033* (-2.54)	-0.855** (-3.14)	-0.633* (-2.28)
Local Currency Weight	0.022 (0.08)	0.111 (0.36)	0.304 (0.75)	0.109 (1.63)	0.097* (2.06)	0.142* (2.12)
Fund_FEE	-0.029 (-0.62)	-0.013 (-0.21)	-0.165* (-2.23)	0.012 (0.45)	0.013 (0.59)	-0.064* (-2.53)
Fund_Turnover	-0.105* (-2.32)	-0.106** (-4.59)	-0.161** (-6.35)	-0.036 (-1.77)	-0.062** (-4.09)	-0.135** (-7.34)
Fund_AGE	-0.053 (-1.54)	-0.004 (-0.14)	0.015 (0.32)	-0.006 (-0.26)	0.000 (-0.02)	-0.036 (-1.63)
Fund_TNA	0.002 (0.13)	-0.013 (-0.84)	-0.053** (-2.93)	-0.006 (-0.56)	-0.011 (-1.22)	-0.029* (-2.60)
Bmk_Currency_Concentration	0.194 (1.19)	0.102 (0.86)	0.027 (0.26)	-0.028 (-0.44)	0.067 (1.15)	0.143 (1.75)
Stock_Num	1.656* (2.35)	0.621 (1.22)	0.362 (0.99)	0.738* (2.08)	0.656* (2.24)	-0.321 (-1.11)
Industry Concentration	0.031 (1.01)	0.030 (1.00)	-0.049 (-1.51)	-0.032 (-1.06)	0.009 (0.39)	0.091** (3.80)
Stock_Concentration_Dom	-9.811 (-1.26)	-3.983 (-0.54)	-7.378 (-0.95)	-0.496 (-0.19)	-0.604 (-0.42)	-4.439* (-2.12)
Stock_Concentration_Fore	4.197 (1.57)	4.448 (1.88)	1.214 (0.48)	-1.471* (-2.36)	-0.720 (-1.90)	0.582 (1.10)
Constant	-0.176** (-2.83)	-0.158** (-3.27)	-0.155* (-2.56)	-0.022 (-0.40)	-0.074 (-1.64)	-0.057 (-1.14)
Observations	15,053	14,917	14,957	36,704	36,154	35,921
R-squared	0.067	0.047	0.035	0.033	0.022	0.021
F	2.70	4.21	6.02	2.19	3.90	9.44

**Table 7: Equity Components of Fund Performance  
(Full Specifications)**

We report the impact of currency policies on the equity component of fund performance. Specifically, similarly to Table 6, MX-, MX4-, and MX4C-adjusted equity returns (quarterly performance, in %) are regressed period by period on currency concentration and a set of control variables. We report the time-series averages of the cross-sectional regression parameters and their Newey-West adjusted t-statistics for the main policies. Parameters with \* and \*\* are significant at the 5% and 1% levels, respectively.

	Model1 MX	Model2 MX4	Model3 MX4C	Model4 MX	Model5 MX4	Model6 MX4C
Currency Concentration	-1.159* (-2.24)	-0.998** (-3.18)	-0.951* (-2.20)	-1.232* (-2.44)	-1.127** (-3.58)	-1.011* (-2.49)
Local Currency Weight	0.058 (0.74)	0.062 (0.86)	0.076 (0.67)	-0.084 (-0.78)	-0.059 (-0.72)	0.014 (0.16)
Fund_FEE	0.073 (1.29)	0.069 (1.42)	-0.011 (-0.18)	0.051 (1.03)	0.058 (1.36)	-0.022 (-0.39)
Fund_Turnover	-0.071 (-1.98)	-0.075** (-3.06)	-0.160** (-6.65)	-0.067 (-1.93)	-0.070** (-2.90)	-0.151** (-6.40)
Fund_AGE	0.028 (0.66)	0.023 (0.71)	0.010 (0.21)	0.018 (0.47)	0.017 (0.58)	0.004 (0.10)
Fund_TNA	-0.022 (-0.99)	-0.011 (-0.61)	-0.035* (-2.56)	-0.004 (-0.18)	0.004 (0.22)	-0.023 (-1.69)
Stock_Num				0.865 (1.58)	0.787 (1.79)	1.282* (2.55)
Industry Concentration				-0.009 (-0.28)	0.017 (0.73)	0.046* (2.03)
Stock_Concentration_Dom				5.258* (2.34)	4.394* (2.56)	0.255 (0.09)
Stock_Concentration_Fore				0.698 (1.40)	0.826 (1.75)	0.612 (1.17)
Bmk_Currency_Concentration	0.050 (0.48)	0.114 (1.33)	0.155 (1.35)	-0.057 (-0.49)	0.012 (0.12)	0.045 (0.38)
Constant	-0.054 (-0.92)	-0.085 (-1.69)	-0.062 (-1.23)	-0.020 (-0.33)	-0.055 (-1.07)	-0.031 (-0.62)
Observations	69,538	69,530	69,530	69,537	69,529	69,529
R-squared	0.033	0.022	0.019	0.061	0.047	0.04
F	1.82	3.56	8.27	1.98	3.40	5.66

**Table 8: Performance Impacts of Currency Policies (Two Stages Regressions)  
(Full Specifications)**

This table reports the out-of-sample performance impact due to various components of currency policies. Specifically, in Panel A, we project currency concentration on ICVR and cultural distance to decompose currency concentration into components due to ICVR, cultural distance, and other factors. Similarly to Table 6, we then regress, in a panel specification, MX-, MX4-, and MX4C-adjusted quarterly Morningstar total returns on various components of currency concentration and lagged control variables. We control for the time fixed effect and estimate the error clustered at the fund level. We report the regression parameters as well as their t-statistics for different components of currency concentration and tabulate the parameters for other control variables in the Internet Appendix. Panels B and C report the results for holding-implied returns and the equity component of returns, respectively. Parameters with \* and \*\* are significant at the 5% and 1% levels, respectively.

Panel A: Total Returns from Morningstar						
	Model 1 MX	Model2 MX4	Model3 MX4C	Model4 MX	Model5 MX4	Model6 MX4C
Fitted to ICVR	-2.587** (-4.10)	-2.178** (-3.76)	-1.745 (-1.74)	-2.251** (-3.66)	-1.878** (-3.32)	-1.511 (-1.51)
Fitted to Cultural Distance	0.14 (0.29)	-1.184** (-2.61)	(1.12) (-1.11)	(0.16) (-0.31)	-1.450** (-3.18)	(1.32) (-1.31)
Residual of Currency Concentration				-1.043** (-6.26)	-0.931** (-6.19)	-0.726** (-2.91)
Local Currency Weight	-0.136 (-1.38)	-0.086 (-0.94)	-0.253 (-1.51)	-0.043 (-0.45)	-0.003 (-0.03)	-0.189 (-1.13)
Fund_FEE	-0.160** (-4.56)	-0.187** (-5.29)	-0.293** (-4.47)	-0.155** (-4.46)	-0.182** (-5.20)	-0.289** (-4.43)
Fund_Turnover	-0.052** (-2.97)	-0.067** (-3.81)	-0.130** (-3.74)	-0.051** (-2.92)	-0.066** (-3.78)	-0.129** (-3.73)
Fund_AGE	0.023 (0.96)	0.017 (0.72)	0.037 (0.79)	0.031 (1.30)	0.024 (1.03)	0.042 (0.90)
Fund_TNA	0.021* (1.98)	0.031** (2.96)	0.009 (0.43)	0.016 (1.53)	0.026* (2.56)	0.005 (0.27)
Bmk_Currency_Concentration	0.144* (2.04)	0.237** (3.34)	0.074 (0.55)	-0.001 (-0.01)	0.108 (1.50)	-0.027 (-0.19)
Stock_Num	1.025** (4.72)	0.999** (5.13)	1.180** (2.92)	0.874** (4.07)	0.864** (4.49)	1.076** (2.70)
Industry Concentration	-0.073** (-3.14)	-0.033 (-1.42)	0.012 (0.28)	-0.056* (-2.40)	-0.018 (-0.77)	0.024 (0.56)
Stock_Concentration_Dom	0.915 (0.64)	0.196 (0.16)	1.891 (0.96)	1.674 (1.11)	0.874 (0.69)	2.419 (1.23)
Stock_Concentration_Fore	-0.843** (-4.06)	-0.647** (-3.15)	-0.073 (-0.19)	-0.008 (-0.03)	0.099 (0.42)	0.508 (1.21)
Constant	0.08 (1.56)	(0.04) (-0.77)	0.03 (0.35)	0.06 (1.10)	(0.06) (-1.20)	0.02 (0.17)
Observations	69,908	69,900	69,900	69,908	69,900	69,900
R-squared	0.009	0.011	0.012	0.011	0.013	0.013
F	9.53	13.83	5.27	10.93	15.06	5.20

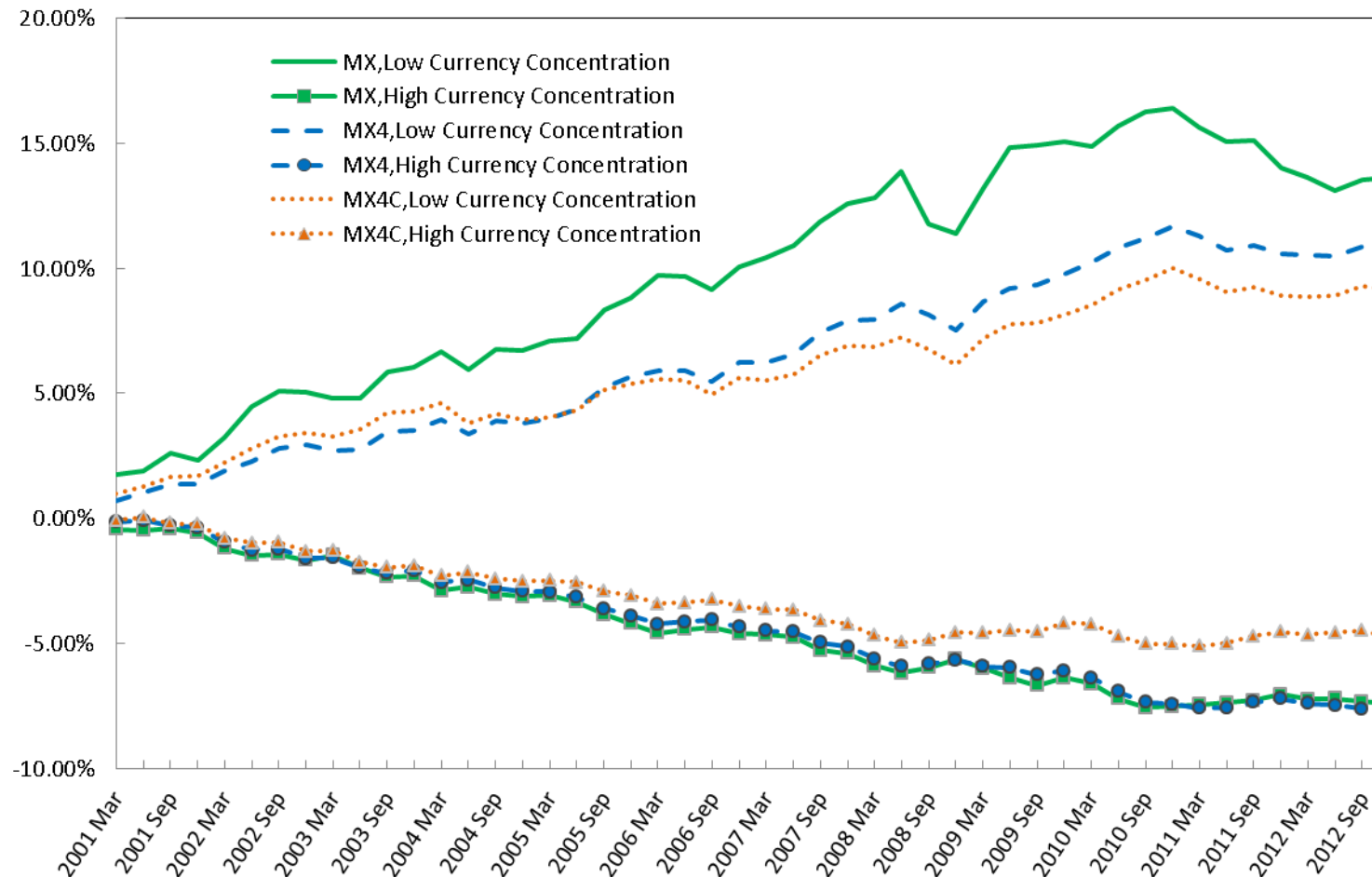
Panel B: Holding Implied Returns						
	Model 1 MX	Model2 MX4	Model3 MX4C	Model4 MX	Model5 MX4	Model6 MX4C
Fitted to ICVR	-3.185** (-5.56)	-2.570** (-4.75)	-2.213* (-2.13)	-2.764** (-4.99)	-2.195** (-4.13)	-1.927 (-1.85)
Fitted to Cultural Distance	0.95 (1.81)	(0.52) (-1.08)	(0.13) (-0.12)	0.57 (1.02)	(0.85) (-1.72)	(0.39) (-0.35)
Residual of Currency Concentration				-1.305** (-7.40)	-1.163** (-7.34)	-0.887** (-2.97)
Local Currency Weight	-0.210* (-2.29)	-0.213* (-2.45)	-0.116 (-0.63)	-0.095 (-1.09)	-0.110 (-1.33)	-0.037 (-0.20)
Fund_FEE	0.043 (1.22)	0.032 (0.93)	-0.074 (-1.01)	0.050 (1.40)	0.038 (1.10)	-0.069 (-0.95)
Fund_Turnover	-0.067** (-3.63)	-0.077** (-4.11)	-0.168** (-4.32)	-0.066** (-3.61)	-0.076** (-4.12)	-0.167** (-4.31)
Fund_AGE	-0.001 (-0.03)	-0.001 (-0.05)	0.015 (0.28)	0.009 (0.36)	0.008 (0.30)	0.022 (0.40)
Fund_TNA	0.012 (0.99)	0.019 (1.59)	-0.026 (-1.05)	0.006 (0.49)	0.014 (1.15)	-0.030 (-1.21)
Bmk_Currency_Concentration	0.210** (3.16)	0.252** (3.74)	0.306* (2.14)	0.029 (0.44)	0.091 (1.34)	0.184 (1.25)
Stock_Num	0.972** (4.54)	0.935** (4.68)	1.186** (2.73)	0.781** (3.65)	0.766** (3.84)	1.057* (2.45)
Industry Concentration	-0.036 (-1.52)	-0.002 (-0.10)	0.044 (0.91)	-0.014 (-0.61)	0.017 (0.74)	0.058 (1.21)
Stock_Concentration_Dom	4.242* (2.12)	2.369 (1.65)	1.091 (0.30)	5.206** (2.58)	3.228* (2.23)	1.746 (0.48)
Stock_Concentration_Fore	-0.649* (-2.19)	-0.503 (-1.81)	-0.462 (-0.82)	0.393 (1.22)	0.425 (1.42)	0.246 (0.41)
Constant	0.100* (2.00)	0.00 (0.05)	0.00 (0.01)	0.07 (1.39)	(0.02) (-0.51)	(0.02) (-0.19)
Observations	69,537	69,529	69,529	69,537	69,529	69,529
R-squared	0.008	0.008	0.008	0.01	0.01	0.009
F	8.28	9.05	3.46	11.20	11.97	3.73

Panel C: Equity Components of Fund Performance						
	Model1 MX	Model2 MX4	Model3 MX4C	Model4 MX	Model5 MX4	Model6 MX4C
Fitted to ICVR	-2.862** (-4.97)	-2.145** (-3.94)	-1.866** (-4.21)	-2.513** (-4.47)	-1.836** (-3.41)	-1.612** (-3.63)
Fitted to Cultural Distance	1.131* (2.09)	(0.24) (-0.49)	0.22 (0.52)	0.82 (1.42)	(0.52) (-1.02)	(0.01) (-0.02)
Residual of Currency Concentration				-1.084** (-5.93)	-0.960** (-5.85)	-0.787** (-7.41)
Local Currency Weight	-0.178* (-1.97)	-0.139 (-1.63)	-0.077 (-1.11)	-0.081 (-0.94)	-0.054 (-0.65)	-0.007 (-0.10)
Fund_FEE	0.045 (1.24)	0.042 (1.19)	-0.014 (-0.51)	0.050 (1.39)	0.047 (1.33)	-0.010 (-0.37)
Fund_Turnover	-0.069** (-3.74)	-0.075** (-4.04)	-0.156** (-10.89)	-0.068** (-3.72)	-0.074** (-4.05)	-0.155** (-10.82)
Fund_AGE	0.008 (0.29)	0.008 (0.32)	0.017 (0.89)	0.016 (0.61)	0.016 (0.61)	0.024 (1.20)
Fund_TNA	0.011 (0.94)	0.018 (1.52)	-0.024* (-2.54)	0.006 (0.52)	0.014 (1.15)	-0.028** (-2.91)
Bmk_Currency_Concentration	0.177** (2.61)	0.219** (3.20)	0.228** (3.96)	0.027 (0.41)	0.086 (1.25)	0.119* (2.01)
Stock_Num	0.942** (4.37)	0.882** (4.40)	1.307** (12.13)	0.784** (3.62)	0.742** (3.68)	1.193** (10.96)
Industry Concentration	-0.037 (-1.53)	-0.011 (-0.46)	0.041 (1.90)	-0.019 (-0.79)	0.005 (0.23)	0.053* (2.50)
Stock_Concentration_Dom	4.698* (2.41)	3.456* (2.31)	3.359** (2.77)	5.499** (2.81)	4.165** (2.77)	3.940** (3.24)
Stock_Concentration_Fore	-0.602* (-2.02)	-0.410 (-1.46)	-0.426* (-2.51)	0.263 (0.81)	0.356 (1.16)	0.201 (1.06)
Constant	0.10 (1.87)	(0.00) (-0.04)	0.03 (0.75)	0.07 (1.36)	(0.02) (-0.49)	0.01 (0.29)
Observations	69,537	69,537	69,529	69,529	69,529	69,529
R-squared	0.007	0.009	0.008	0.009	0.008	0.009
F	7.50	9.11	7.89	9.44	31.66	33.47

**Figure 1 Extensions: Accumulated Performance of Tercile Funds Sorted by Currency Concentration**

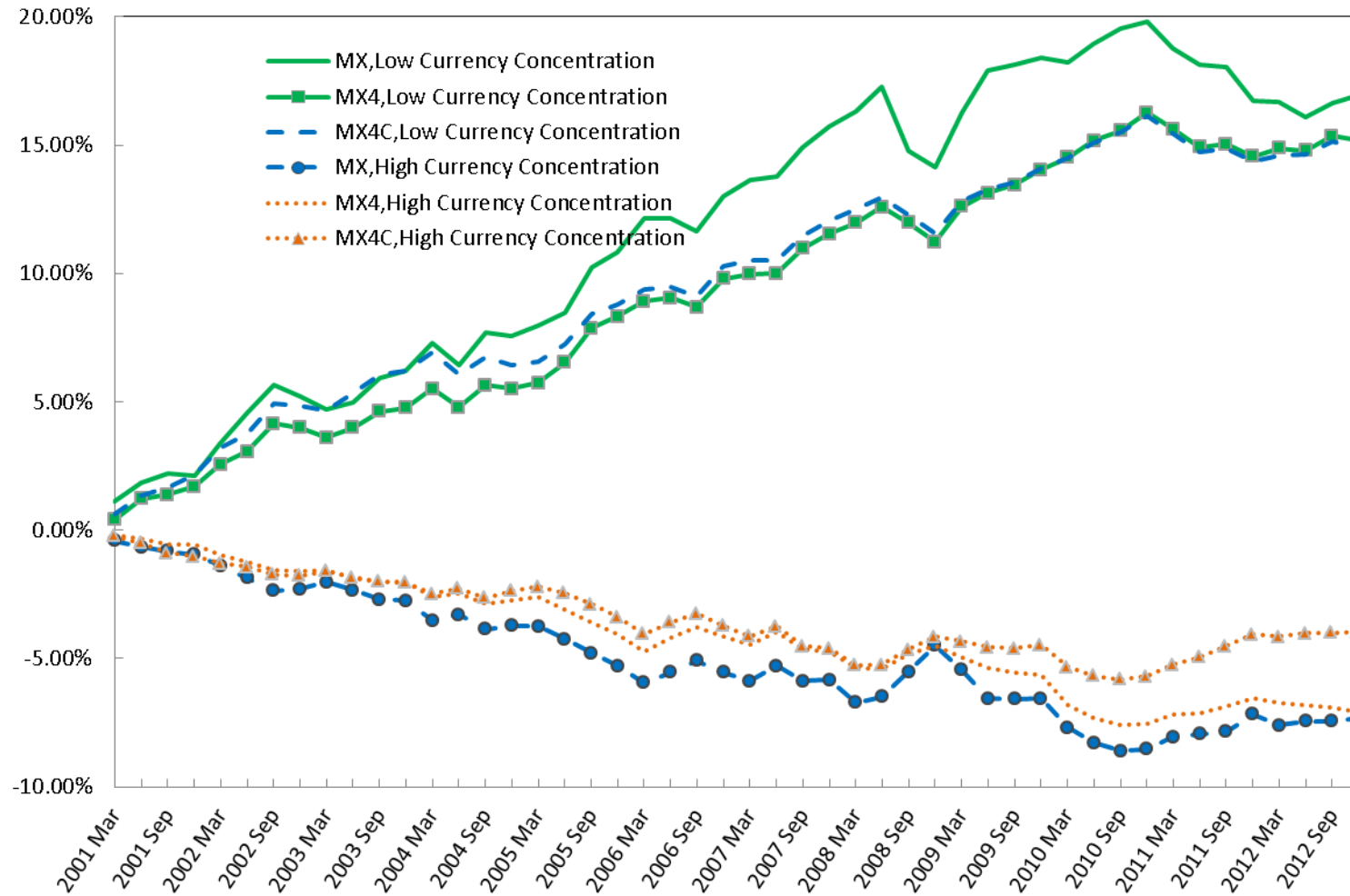
In each quarter, funds are sorted into three terciles according to their lagged currency concentration. Panel A plots the out-of-sample accumulated fund performance (MX-, MX4-, and MX4C-adjusted total returns) for the funds in the terciles with high and low currency concentrations. Panel B plots the out-of-sample accumulated fund performance based on holding-implied returns. Panel C plots the out-of-sample accumulated fund performance based on the equity component of holding-implied returns.

**A: Morningstar Total Return**





## B: Holding Implied Returns



### C: Equity Component of Fund Performance

