

Internet Appendix to

**“Global Political Risk and Currency
Momentum”**

[Not intended for publication]

1. Robustness and other Specification Tests

This section offers a brief description of additional robustness tests that we perform in our analysis.

Reversals. In this section, we consider a mimicking portfolio that incorporates conditional information on past returns. In particular, we control for past month excess returns to see whether our results are driven by short-run reversals. This is important as in the stock market literature there is evidence that short-run reversals affect momentum profitability and they are also related to idiosyncratic volatility, which is one of the determinants of momentum profitability.¹ Thus, we run a regression of the form: $\Delta\mathcal{PR}_{t+1} = a + b'\mathbf{R}\mathbf{X}_{t+1} + c'\mathbf{Z}_t + u_{t+1}$, where \mathbf{Z}_t is the previous month momentum excess return, to obtain the *conditional* mimicking portfolio (i.e. \mathcal{CFPR}) as the fitted values.

Table A6 shows results for FMB regressions after replacing our political risk factor with the *conditional* mimicking portfolio. A visual illustration of the pricing errors is offered in Figure A7 of the Internet Appendix. We also consider longer horizons of 9 and 12 months in *Panel B* of Table A2 in the Internet Appendix. We find that the results are similar in terms of statistical significance of the estimated value of $\lambda_{\mathcal{CFPR}}$ but for some formation periods we reject the null hypothesis that all the pricing errors are jointly equal to zero based on the χ^2 test statistic. However, for the cases of momentum (1,1) and (12,1), the results remain unchanged. In addition, we cannot reject the null of zero HJ distance for any formation period and the cross-sectional R^2 s vary from 55% for momentum (9,1) to 98% when considering the previous month's performance. Therefore, we find that short-run reversals might affect medium horizon momentum strategies but they do not have any effect

¹See for example [Huang, Liu, Rhee, and Zhang \(2009\)](#); [Chen and Petkova \(2012\)](#).

on the short or long-run formation periods.

Portfolio-level Asset Pricing Tests. In Figure A7 we show the fit of our model graphically by plotting realized average excess returns on the vertical axis and the corresponding average fitted excess returns along the horizontal axis. We find that, for every formation period, global political risk is priced in that it is able to replicate the spread in average momentum returns adequately.

Tradability. One of the main concerns regarding the validity of our results is related to potential impediments in the foreign exchange market that could impede an investor from trading particular currencies; some currencies cannot be traded in large volumes and exhibit a high degree of illiquidity. To alleviate this issue, we follow Della Corte, Sarno, Schmeling, and Wagner (2013) and allow for currency-time combinations that meet particular conditions. More precisely, we include country-time pairs for countries that exhibit a non-negative value on the Chinn and Ito (2006) capital account openness index and whose currencies belong in the exchange rate regime 3 or 4 of the IMF coarse classification. The latter filter eliminates currencies that are inside a pre-announced crawling band of $+/- 2\%$, outside a de facto crawling band of $+/- 5\%$, outside a moving band of $+/- 2\%$, or those that are not in a free float. The filtered data comprise the following 33 countries: Australia, Bulgaria, Canada, Cyprus, Denmark, Egypt, France, Germany, Greece, Hungary, Iceland, India, Ireland, Israel, Japan, Kuwait, Malaysia, Mexico, New Zealand, Norway, Philippines, Poland, Russia, Saudi Arabia, Slovakia, Slovenia, South Africa, South Korea, Sweden, Switzerland, Taiwan, Thailand, United Kingdom. We name this group of currencies *Filtered Data*.

Purely as a check on the robustness of our analysis, we also added in 12 countries (giving 60 countries in total) that we excluded from the initial sample as they exhibit very small

tradability and thus high illiquidity, namely Argentina, Chile, China, Colombia, Estonia, Kazakhstan, Latvia, Lithuania, Morocco, Tunisia, Turkey, Venezuela. Then we applied the filters that we described above and end up with currencies of 39 countries: the 33 countries listed in the previous paragraph plus Argentina, China, Estonia, Latvia, Lithuania and Venezuela.

Table A4 reports results of asset pricing tests after imposing the filters. We employ a dollar factor along with the mimicking portfolio as we did in section 5.4 of the paper. The results are qualitatively unchanged or even improved in some cases. Overall, we find that our asset pricing model performs well in terms of statistical and economic significance as we find statistically significant slope risk factor prices and we cannot reject the null hypothesis that all pricing errors are equal to zero based on χ^2 test statistics obtained from *FMB* and *GMM*₁ and *GMM*₂ procedures. In addition, we cannot reject, at conventional test sizes, the null hypothesis that the *HJ* distance is equal to zero for any formation period, as indicated by the large *p-values*. Finally, the cross-sectional R^2 range from 89% for the momentum of one month formation period to 92% for the currency momentum with three months formation period. *Panel A* (*Panel B*) reports results for the *Filtered Data* that contain 33 countries (39 countries).

Transaction Costs. We also examine the pricing ability of political risk for currency momentum when considering *net* excess returns. The inclusion of transaction costs is very important as they partially explain the profitability of this strategy (Menkhoff, Sarno, Schmeling, and Schrimpf, 2012). Table A5 displays results for FMB regressions after considering the implementation cost of the strategy. Specifically, the estimated $\lambda_{\mathcal{FPR}}$ is highly significant across formation periods based on HAC standard errors as well as Shanken (1992) standard errors and *t*-statistics that account for the errors-in-variable problem. In addition, we were

unable to reject the null hypothesis of zero pricing errors for any formation period (with the exception of the 9-month formation period), something that it is verified by the $CSRT_{SH}$ statistic when we include a constant in the cross-sectional regression. Moreover, we cannot reject the null hypothesis that the HJ distance is equal to zero and the cross-sectional R^2 are slightly lower, ranging from 45% for the 6-month formation period to 90% when we evaluate the previous month performance. Figure A6 in the Internet Appendix shows the corresponding pricing error plots. *Panel A* of Table A3 in the Internet Appendix offers results for longer formation periods. Overall, these results show that global political risk is priced in the cross-section of momentum returns even after controlling for transaction costs.

Non-linearity. In developing our asset pricing model, we proposed a linear SDF to price momentum returns. However, based on the double-sort evidence reported above, one might argue that there may be a non-linear relationship between momentum returns and global political risk innovations. Following this conjecture, we test whether the price of political risk depends on the *sign* of global political risk innovations. In Table A7 we report the results of cross-sectional asset pricing tests including positive and negative political risk innovations separately. We note that the price of political risk is very significant in the case of positive innovations regardless of the methods used to compute the standard errors, while in the case of negative shocks the Shanken correction of the *FMB* procedure suggests that the risk price is not significantly different from zero. In other words, the pricing implication is stronger when there is an unexpected increase in global political risk either through an increase of political risk in foreign countries or a decrease in U.S. political risk. Nevertheless, the linear model remains a good approximation to the true risk pricing relation.

Long-short Strategies. The mechanism we proposed in developing the asset pricing model may also be relevant for other long-short currency strategies. In order to understand better the role of political risk for currency long-short strategies, we examine the relationship between currency portfolio returns and global political risk. Specifically, we sort our global political risk measure into four bins (i.e. quartiles) to get the quarter of months with the *lowest* political risk in the *first* quartile and the quarter of months with the *highest* political risk in the *last* basket. Then we compute the average excess currency returns of going long the winner portfolio and short the loser portfolio for the each bin. In this way, we assess the role of global political risk in the profitability of currency portfolio strategies. Figure A8 provides a visual illustration of annualized mean momentum returns conditional on global political risk innovations for different formation periods (i.e. $f = 1, 3, 6$) and a holding period (h) of one month. The figure shows specifically that average momentum returns increase when we move from low to high political states. This pattern is less pronounced as we increase the months of the formation period. In any case, currency momentum returns are higher in periods of extreme political risk and perform poorly under low political states indicating the significant role played by political risk in the currency market. We report results of testing this finding more stringently in the next section. In addition to the momentum strategy, we also consider value and carry trade strategies.² Figure A9 in the Internet Appendix provides a visual illustration of the corresponding annualized mean returns of the value and carry trade strategy, conditional on global political risk innovations. As we can see, the increasing pattern of the average value and carry trade profitability is consistent the our intuition regarding the presence of political risk in any long-short FX strategy. However, other risk factors that price FX value/carry returns dominate the pricing ability of global political risk

²Our currency value strategy is in the same vein with other studies such as [Barroso and Santa-Clara \(2012\)](#); [Asness, Moskowitz, and Pedersen \(2013\)](#); [Menkhoff, Sarno, Schmeling, and Schrimpf \(2014\)](#).

in case of value and carry trade strategies.³

Lewellen, Nagel, and Shanken (2010) argue that it is relatively easy to find risk factors that can price test assets with strong factor structure. In addition, they suggest that the models should be evaluated on the basis of their GLS R^2 and consider more test assets to address these concerns. We increase the cross-sectional dimension of our portfolios by including six momentum, carry and value portfolios (in total 18 test assets) and examine the pricing ability of our model against other competing models. Particularly, we use as candidate factors a carry trade spread portfolio, a momentum portfolio, a value portfolio and mimicking portfolios for global FX volatility, global FX correlation risk and global FX illiquidity. *Panel A* of table A4 reports Gibbons, Ross, and Shanken (1989) (GRS) test statistics and the corresponding p -values. We display results for asset pricing models with and without the dollar factor. *Panel B* reports factor prices of risk (λ_X) only for the competing risk factors, χ^2 of Shanken (1992), cross-sectional R^2 and p -values of a χ^2 with HAC standard errors. Overall, we find that our model provides higher cross-sectional R^2 (GLS R^2) compared to other models regardless of the use of the dollar factor.

³Asset pricing results are available upon request.

Table A1. Descriptive Statistics of Time-Series Momentum Portfolios

This table presents descriptive statistics of equally-weighted time-series momentum portfolios (i.e. $TSMOM^{1,1} = \overline{CRX}$) of one month formation and holding period. *Panel A* presents annualized mean, standard deviation and Sharpe ratios, all in percentage points. We also report skewness and kurtosis of time-series momentum portfolios where τ represents payoffs that incorporate transactions costs. *Panel B* reports results of contemporaneous regressions of time-series momentum portfolio (i.e. $TSMOM^{1,1}$) on cross-sectional momentum portfolios with different formation periods (f) from one month to twelve months. Figures in squared brackets represent Newey and West (1987) t -statistics corrected for heteroskedasticity and autocorrelation (HAC) using the optimal number of lags as in Andrews (1991) and numbers in parenthesis are p -values. The data is collected from Datastream *via* Barclays and Reuters. The data contain monthly series from January 1985 to January 2014.

<i>Panel A: Time-Series Momentum ($f = 1, h = 1$)</i>					
	$TSMOM^{1,1}$	$TSMOM_{\tau}^{1,1}$			
<i>Mean</i>	5.32	3.25			
	[5.25]	[3.26]			
<i>Std</i>	5.66	5.70			
<i>SR</i>	0.94	0.57			
<i>Skew</i>	0.25	0.27			
<i>Kurt</i>	5.37	5.53			
<i>Min</i>	-0.05	-0.06			
<i>Max</i>	0.08	0.08			
<i>AC(1)</i>	0.04	0.03			
	(0.50)	(0.59)			
<hr/>					
<i>Panel B: $TSMOM_t^{1,1} = \alpha + \beta \mathcal{WML}_t^{f,h} + \varepsilon_t$ for $f = 1, 3, 6, 9, 12$ and $h = 1$</i>					
	$\mathcal{WML}^{1,1}$	$\mathcal{WML}^{3,1}$	$\mathcal{WML}^{6,1}$	$\mathcal{WML}^{9,1}$	$\mathcal{WML}^{12,1}$
<i>Without TC</i>					
α	0.30	0.33	0.33	0.50	0.34
	[2.27]	[2.45]	[2.44]	[3.74]	[2.63]
β	1.22	0.90	0.62	0.44	0.30
	[14.96]	[10.68]	[5.19]	[3.68]	[2.42]
\bar{R}^2	0.52	0.26	0.11	0.05	0.02
<hr/>					
<i>With TC</i>					
α	0.20	0.19	0.14	0.30	0.12
	[1.57]	[1.39]	[1.06]	[2.12]	[0.92]
β	1.21	0.90	0.59	0.42	0.29
	[15.08]	[10.45]	[4.79]	[3.52]	[2.20]
\bar{R}^2	0.52	0.26	0.10	0.05	0.02

Table A2. Univariate Predictive Regressions - *Alternative Formation Periods*

This table reports univariate predictive regressions of currency momentum returns with global political risk ($\Delta \mathcal{PR}_t$), volatility ($\Delta \mathcal{RV}_t^{FX}$), correlation ($\Delta \mathcal{RC}_t^{FX}$) and liquidity ($\Delta \mathcal{L}_t^{FX}$) innovations as well as CDS spreads ($\Delta \mathcal{CDS}_t$). NW represents Newey and West (1987) t -statistics corrected for heteroskedasticity and autocorrelation (HAC) using the optimal number of lags as in Andrews (1991). We also present R-squares (R^2) for each regression and below the R^2 we present χ^2 in squared brackets. *Panel A* shows results for $\mathcal{WML}_t^{3,1}$ and *Panel B* for $\mathcal{WML}_t^{6,1}$. The data is collected from Datastream *via* Barclays and Reuters. The data contain monthly series from January 1985 to January 2014 with the exception of the CDS data that spans the period October 2000 to January 2014.

Panel A: Currency Momentum ($f = 3, h = 1$)														
	<i>cons</i>	$\Delta \mathcal{PR}_t$	$\Delta \mathcal{RV}_t^{FX}$	$\Delta \mathcal{RC}_t^{FX}$	$\Delta \mathcal{L}_t^{FX}$	$\Delta \mathcal{CDS}_t$	R^2	<i>cons</i>	$\Delta \mathcal{PR}_t$	$\Delta \mathcal{RV}_t^{FX}$	$\Delta \mathcal{RC}_t^{FX}$	$\Delta \mathcal{L}_t^{FX}$	$\Delta \mathcal{CDS}_t$	R^2
Without Transaction Costs							With Transaction Costs							
(a)	0.73	-5.62					0.02	0.43	-5.97					0.02
NW	[4.62]	[-3.01]					[9.09]	[2.75]	[-3.17]					[10.03]
(b)	0.74		2.52				0.00	0.43		2.33				0.00
NW	[4.58]		[1.24]				[1.55]	[2.71]		[1.15]				[1.32]
(c)	0.73			1.31			0.00	0.43			1.24			0.00
NW	[4.61]			[0.79]			[0.62]	[2.72]			[0.74]			[0.55]
(d)	0.73				-8.49		0.00	0.43				-10.40		0.00
NW	[4.56]				[-0.94]		[0.89]	[2.70]				[-1.16]		[1.35]
(e)	0.95					-0.82	0.01	0.64					-0.82	0.01
NW	[4.09]					[-1.20]	[1.43]	[2.82]					[-1.21]	[1.46]
Panel B: Currency Momentum ($f = 6, h = 1$)														
(a)	0.59	-3.23					0.00	0.30	-3.63					0.01
NW	[3.88]	[-1.43]					[2.06]	[1.95]	[-1.63]					[2.66]
(b)	0.60		0.45				0.00	0.30		0.16				0.00
NW	[3.85]		[0.17]				[0.03]	[1.94]		[0.06]				[0.00]
(c)	0.60			1.01			0.00	0.30			0.87			0.00
NW	[3.87]			[0.68]			[0.46]	[1.94]			[0.58]			[0.34]
(d)	0.59				-6.23		0.00	0.30				-7.82		0.00
NW	[3.86]				[-0.53]		[0.28]	[1.94]				[-0.66]		[0.44]
(e)	0.73					-0.70	0.00	0.43					-0.70	0.00
NW	[2.94]					[-0.82]	[0.67]	[1.74]					[-0.84]	[0.70]

Table A3. Robustness: *Asset Pricing Tests - Longer Formation Periods*

This table reports asset pricing results for the two-factor model that comprises the *DOL* and *FPR* risk factors. We use as test assets six currency portfolios sorted based on past performances of currency returns. Particularly, we employ formation periods of 9 and 12 months. We rebalance our portfolios on a monthly basis. We report Fama and MacBeth (1973) estimates of the factor loadings (b) and factor prices of risk (λ). We also display Newey and West (1987) standard errors (in parenthesis) or t -statistics (in squared brackets) corrected for autocorrelation and heteroskedasticity with Andrews (1991) optimal lag selection and Sh are the corresponding values of Shanken (1992). The table also shows χ^2 , cross-sectional R^2 , HJ distance following Hansen and Jagannathan (1997) as well as a generalized version of the cross-sectional F -test statistic of Shanken (1985) ($CSRT_{SH}$). Panel A controls for transaction costs and Panel B for short-run reversals. The excess returns are expressed in percentage points. We report p -values in curly brackets. The data are collected from Datastream via Barclays and Reuters. The data contain monthly series from January 1985 to January 2014.

Panel A: Factor Prices - Transaction Costs									
	$cons$	λ_{DOL}	λ_{FPR}	χ^2_{NW}	χ^2_{SH}	χ^2_{GMM1}	χ^2_{GMM2}	R^2	HJ dist
<i>Momentum ($f = 9, h = 1$)</i>									
<i>FMB</i>		0.12	0.23	14.98	14.60	9.19	9.80	0.55	0.09
(<i>NW</i>)		(0.11)	(0.11)	{0.01}	{0.01}	{0.06}	{0.04}		{0.28}
(<i>Sh</i>)		(0.11)	(0.11)						
<i>FMBc</i>	0.01	-0.85	0.27	$CSRT_{SH}$	0.16	{0.12}			
[<i>NW</i>]	[1.63]	[-1.40]	[2.50]						
<i>Momentum ($f = 12, h = 1$)</i>									
<i>FMB</i>		0.11	0.10	2.93	2.89	2.32	2.45	0.88	0.09
(<i>NW</i>)		(0.11)	(0.05)	{0.71}	{0.72}	{0.68}	{0.65}		{0.41}
(<i>Sh</i>)		(0.11)	(0.05)						
<i>FMBc</i>	0.01	-0.71	0.16	$CSRT_{SH}$	0.21	{0.19}			
[<i>NW</i>]	[1.27]	[-1.08]	[2.41]						
Panel B: Factor Prices - Reversals									
	$cons$	λ_{DOL}	λ_{FPR}	χ^2_{NW}	χ^2_{SH}	χ^2_{GMM1}	χ^2_{GMM2}	R^2	HJ dist
<i>Momentum ($f = 9, h = 1$)</i>									
<i>FMB</i>		0.20	0.35	26.36	24.90	12.87	13.80	0.55	0.09
(<i>NW</i>)		(0.11)	(0.11)	{0.00}	{0.00}	{0.01}	{0.01}		{0.30}
(<i>Sh</i>)		(0.11)	(0.11)						
<i>FMBc</i>	0.01	-0.53	0.38	$CSRT_{SH}$	3.62	{0.01}			
[<i>NW</i>]	[1.19]	[-0.85]	[3.46]						
<i>Momentum ($f = 12, h = 1$)</i>									
<i>FMB</i>		0.20	0.15	2.73	2.62	3.06	3.14	0.96	0.08
(<i>NW</i>)		(0.11)	(0.06)	{0.74}	{0.76}	{0.55}	{0.53}		{0.43}
(<i>Sh</i>)		(0.11)	(0.06)						
<i>FMBc</i>	0.01	-0.45	0.20	$CSRT_{SH}$	0.30	{0.80}			
[<i>NW</i>]	[0.97]	[-0.66]	[2.96]						

Table A4. Robustness: *Asset Pricing Tests - Filtered Data*

This table reports asset pricing results for the two-factor model that comprises the *DOL* and *FPR* risk factors. We use as test assets six currency portfolios sorted based on past performances of currency returns. We rebalance our portfolios on a monthly basis. *Panel A* reports [Fama and MacBeth \(1973\)](#) estimates of the factor loadings (b) and factor prices of risk (λ). We also display [Newey and West \(1987\)](#) standard errors (in parenthesis) or t -statistics (in squared brackets) corrected for autocorrelation and heteroskedasticity with [Andrews \(1991\)](#) optimal lag selection and Sh are the corresponding values of [Shanken \(1992\)](#). The table also shows χ^2 , cross-sectional R^2 , HJ distance following [Hansen and Jagannathan \(1997\)](#) as well as a generalized version of the cross-sectional F -test statistic of [Shanken \(1985\)](#) ($CSRT_{SH}$). We report p -values in curly brackets. We do not control for transaction costs and excess returns are expressed in percentage points. The data are collected from Datastream *via* Barclays and Reuters. The data contain monthly series from January 1985 to January 2014.

<i>Panel A: Factor Prices (33 countries)</i>									
	<i>cons</i>	λ_{DOL}	λ_{FPR}	χ^2_{NW}	χ^2_{SH}	χ^2_{GMM1}	χ^2_{GMM2}	R^2	HJ dist
<i>Momentum ($f = 1, h = 1$)</i>									
<i>FMB</i>		0.15	0.23	7.59	7.23	6.52	6.61	0.89	0.06
(<i>NW</i>)		(0.11)	(0.07)	{0.18}	{0.20}	{0.16}	{0.16}		{0.60}
(<i>Sh</i>)		(0.11)	(0.07)						
<i>FMBc</i>	-0.01	0.93	0.19	$CSRT_{SH}$	1.32	{0.20}			
[<i>NW</i>]	[-0.87]	[1.03]	[2.28]						
<i>Momentum ($f = 3, h = 1$)</i>									
<i>FMB</i>		0.12	0.16	14.46	14.03	10.11	10.06	0.92	0.10
(<i>NW</i>)		(0.11)	(0.07)	{0.01}	{0.02}	{0.04}	{0.04}		{0.14}
(<i>Sh</i>)		(0.11)	(0.07)						
<i>FMBc</i>	0.02	-1.50	0.36	$CSRT_{SH}$	0.59	{0.57}			
[<i>NW</i>]	[3.10]	[-2.77]	[3.32]						
<i>Panel B: Factor Prices (39 countries)</i>									
	<i>cons</i>	λ_{DOL}	λ_{FPR}	χ^2_{NW}	χ^2_{SH}	χ^2_{GMM1}	χ^2_{GMM2}	R^2	HJ dist
<i>Momentum ($f = 1, h = 1$)</i>									
<i>FMB</i>		0.12	0.23	7.98	7.62	4.96	5.01	0.79	0.10
(<i>NW</i>)		(0.11)	(0.07)	{0.16}	{0.18}	{0.29}	{0.24}		{0.28}
(<i>Sh</i>)		(0.11)	(0.07)						
<i>FMBc</i>	0.00	-0.02	0.24	$CSRT_{SH}$	1.57	{0.15}			
[<i>NW</i>]	[0.26]	[-0.03]	[3.24]						
<i>Momentum ($f = 3, h = 1$)</i>									
<i>FMB</i>		0.11	0.15	9.32	9.00	7.52	7.75	0.92	0.06
(<i>NW</i>)		(0.11)	(0.05)	{0.10}	{0.11}	{0.11}	{0.10}		{0.66}
(<i>Sh</i>)		(0.11)	(0.05)						
<i>FMBc</i>	0.02	-2.18	0.33	$CSRT_{SH}$	0.34	{0.76}			
[<i>NW</i>]	[2.43]	[-2.28]	[3.53]						

Table A5. Robustness: *Asset Pricing Tests - Transaction Costs*

This table reports asset pricing results for the two-factor model that comprises the *DOL* and *FPR* risk factors. We use as test assets six currency portfolios sorted based on past performances of currency returns. Particularly, we employ formation periods of 1, 3, 9 and 12 months. We rebalance our portfolios on a monthly basis. *Panel A* reports [Fama and MacBeth \(1973\)](#) estimates of the factor loadings (b) and factor prices of risk (λ). We also display [Newey and West \(1987\)](#) standard errors (in parenthesis) or t -statistics (in squared brackets) corrected for autocorrelation and heteroskedasticity with [Andrews \(1991\)](#) optimal lag selection and Sh are the corresponding values of [Shanken \(1992\)](#). The table also shows χ^2 , cross-sectional R^2 , HJ distance following [Hansen and Jagannathan \(1997\)](#) as well as a generalized version of the cross-sectional F -test statistic of [Shanken \(1985\)](#) ($CSRT_{SH}$). We control for transaction costs and excess returns are expressed in percentage points. We report p -values in curly brackets. The data are collected from Datastream *via* Barclays and Reuters. The data contain monthly series from January 1985 to January 2014.

<i>Panel A: Factor Prices</i>								
	<i>cons</i>	λ_{DOL}	λ_{FPR}	χ^2_{NW}	χ^2_{SH}	χ^2_{GMM1}	χ^2_{GMM2}	R^2 HJ dist
<i>Momentum (f = 1, h = 1)</i>								
<i>FMB</i>		0.15	0.14	6.31	5.97	5.59	6.03	0.90 0.03
(<i>NW</i>)		(0.11)	(0.04)	{0.28}	{0.31}	{0.23}	{0.20}	{0.96}
(<i>Sh</i>)		(0.11)	(0.04)					
<i>FMBc</i>	0.02	-1.53	0.18	$CSRT_{SH}$	0.87	{0.39}		
[<i>NW</i>]	[0.93]	[-0.84]	[2.87]					
<i>Momentum (f = 3, h = 1)</i>								
<i>FMB</i>		0.15	0.28	7.34	6.95	4.16	4.28	0.81 0.05
(<i>NW</i>)		(0.11)	(0.08)	{0.20}	{0.22}	{0.38}	{0.37}	{0.80}
(<i>Sh</i>)		(0.11)	(0.08)					
<i>FMBc</i>	0.01	-0.76	0.34	$CSRT_{SH}$	0.82	{0.42}		
[<i>NW</i>]	[0.71]	[-0.58]	[3.34]					
<i>Momentum (f = 6, h = 1)</i>								
<i>FMB</i>		0.14	0.04	14.60	14.46	7.11	7.37	0.45 0.04
(<i>NW</i>)		(0.11)	(0.03)	{0.01}	{0.01}	{0.13}	{0.12}	{0.80}
(<i>Sh</i>)		(0.11)	(0.03)					
<i>FMBc</i>	0.03	-2.68	0.18	$CSRT_{SH}$	0.61	{0.55}		
[<i>NW</i>]	[2.28]	[-2.16]	[2.45]					

Table A6. Robustness: *Asset Pricing Tests - Reversals*

This table reports asset pricing results for the two-factor model that comprises the *DOL* and *CFPR* risk factors. We use as test assets six currency portfolios sorted based on past performances of currency returns. Particularly, we employ formation periods of 1, 3, 6, 9 and 12 months. We rebalance our portfolios on a monthly basis. *Panel A* reports [Fama and MacBeth \(1973\)](#) estimates of the factor loadings (b) and factor prices of risk (λ). We also display [Newey and West \(1987\)](#) standard errors (in parenthesis) or t -statistics (in squared brackets) corrected for autocorrelation and heteroskedasticity with [Andrews \(1991\)](#) optimal lag selection and Sh are the corresponding values of [Shanken \(1992\)](#). The table also shows χ^2 , cross-sectional R^2 , HJ distance following [Hansen and Jagannathan \(1997\)](#) as well as a generalized version of the cross-sectional F -test statistic of [Shanken \(1985\)](#) ($CSRT_{SH}$). We report p -values in curly brackets. We do not control for transaction costs and excess returns are expressed in percentage points. The data are collected from Datastream *via* Barclays and Reuters. The data contain monthly series from January 1985 to January 2014.

<i>Panel A: Factor Prices</i>								
	$cons$	λ_{DOL}	λ_{CFPR}	χ^2_{NW}	χ^2_{SH}	χ^2_{GMM1}	χ^2_{GMM2}	R^2 HJ dist
<i>Momentum ($f = 1, h = 1$)</i>								
<i>FMB</i>		0.24	0.21	3.40	3.05	3.08	3.58	0.98 0.03
(<i>NW</i>)		(0.11)	(0.04)	{0.64}	{0.69}	{0.54}	{0.47}	{0.94}
(<i>Sh</i>)		(0.11)	(0.04)					
<i>FMBc</i>	-0.02	2.01	0.18	$CSRT_{SH}$	0.22	{0.86}		
[<i>NW</i>]	[-0.94]	[1.06]	[3.27]					
<i>Momentum ($f = 3, h = 1$)</i>								
<i>FMB</i>		0.25	0.34	19.00	17.55	10.24	11.58	0.65 0.05
(<i>NW</i>)		(0.11)	(0.08)	{0.00}	{0.00}	{0.04}	{0.02}	{0.74}
(<i>Sh</i>)		(0.11)	(0.08)					
<i>FMBc</i>	-0.01	1.52	0.27	$CSRT_{SH}$	2.53	{0.04}		
[<i>NW</i>]	[-0.98]	[1.16]	[2.94]					
<i>Momentum ($f = 6, h = 1$)</i>								
<i>FMB</i>		0.23	0.10	14.64	14.13	7.57	7.77	0.86 0.04
(<i>NW</i>)		(0.11)	(0.04)	{0.01}	{0.01}	{0.11}	{0.10}	{0.79}
(<i>Sh</i>)		(0.11)	(0.04)					
<i>FMBc</i>	0.04	-3.64	0.25	$CSRT_{SH}$	0.18	{0.89}		
[<i>NW</i>]	[3.42]	[-3.20]	[4.33]					

Table A7. Robustness: *Asset Pricing Tests - Non-linearity*

This table reports asset pricing results for the two-factor model that comprises the *DOL* and positive or negative values of global political risk (i.e. $\Delta\mathcal{PR}^+$, $\Delta\mathcal{PR}^-$) as risk factors. We use as test assets six currency portfolios sorted based on past month's performances of currency returns (i.e. $f = 1$). *Panel A* reports [Fama and MacBeth \(1973\)](#) estimates of the factor loadings (b) and factor prices of risk (λ). We also display [Newey and West \(1987\)](#) standard errors (in parenthesis) or t -statistics (in squared brackets) corrected for autocorrelation and heteroskedasticity with [Andrews \(1991\)](#) optimal lag selection and Sh are the corresponding values of [Shanken \(1992\)](#). The table also shows χ^2 , cross-sectional R^2 , HJ distance following [Hansen and Jagannathan \(1997\)](#) as well as a generalized version of the cross-sectional F -test statistic of [Shanken \(1985\)](#) ($CSRT_{SH}$). We report p -values in curly brackets. We also report results without the *DOL* factor. We do not control for transaction costs and excess returns are expressed in percentage points. The data are collected from Datastream *via* Barclays and Reuters. The data contain monthly series from January 1985 to January 2014.

<i>Panel A: Factor Prices - $\Delta\mathcal{PR}^+$</i>								
<i>cons</i>	λ_{DOL}	λ_{CFPR}	χ^2_{NW}	χ^2_{SH}	χ^2_{GMM1}	χ^2_{GMM2}	R^2	HJ dist
<i>Momentum ($f = 1, h = 1$)</i>								
<i>FMB</i>	0.25	9.87	20.96	3.62	3.01	2.43	0.79	0.03
(<i>NW</i>)	(0.11)	(1.98)	{0.00}	{0.61}	{0.56}	{0.66}		{0.94}
(<i>Sh</i>)	(0.11)	(4.74)						
<i>FMBc</i>	0.35	9.46	$CSRT_{SH}$	1.36	{0.33}			
[<i>Sh</i>]	[1.34]	[2.10]						
<i>Panel B: Factor Prices - $\Delta\mathcal{PR}^-$</i>								
<i>cons</i>	λ_{DOL}	λ_{CFPR}	χ^2_{NW}	χ^2_{SH}	χ^2_{GMM1}	χ^2_{GMM2}	R^2	HJ dist
<i>Momentum ($f = 1, h = 1$)</i>								
<i>FMB</i>	0.21	24.61	19.56	0.75	1.55	1.96	0.54	0.03
(<i>NW</i>)	(0.11)	(4.37)	{0.00}	{0.98}	{0.82}	{0.74}		{0.95}
(<i>Sh</i>)	(0.12)	(22.28)						
<i>FMBc</i>	0.19	24.34	$CSRT_{SH}$	0.41	{0.84}			
[<i>Sh</i>]	[0.33]	[1.11]						

Table A8. Robustness: *Asset Pricing Tests - Carry, Momentum & Value*

This table reports asset pricing results for a number of FX asset pricing models when considering a large number of test assets comprising carry, momentum and value strategies at the same time. Specifically, we consider six portfolios of each strategy (i.e. 18 test assets) and examine the pricing ability of asset pricing models that include global political risk innovations (i.e. FPR), a carry factor (i.e. HML_{FX}), a momentum factor with formation and holding periods of one (i.e. $WML_{FX}^{1,1}$), a value factor (i.e. VAC), a global FX volatility factor (i.e. $FVOL$), a global FX correlation factor (i.e. $FCORR$) or a global FX illiquidity factor (i.e. $FILLIQ$). *Panel A* reports [Gibbons et al. \(1989\)](#) (GRS) test statistics and the corresponding p -values. *Panel B* reports factor prices of risk (λ_X) only for the competing risk factors, χ^2 of [Shanken \(1992\)](#), cross-sectional R^2 and p -values of a χ^2 with HAC standard errors. Standard errors and t-statistics are corrected for autocorrelation and heteroskedasticity following [Newey and West \(1987\)](#) with [Andrews \(1991\)](#) optimal lag selection. We report results with and without the DOL factor. We display p -values in curly brackets, t-statistics in square brackets and standard errors in parenthesis. We do not control for transaction costs and excess returns are expressed in percentage points. The data are collected from Datastream *via* Barclays and Reuters. The data contain monthly series from February 1990 to January 2014.

Panel A: GRS Tests						
	GRS statistic	GRS p -value		GRS statistic	GRS p -value	
	With the DOL			Without the DOL		
$DOL FPR$	14.62	{0.00}		15.12	{0.00}	
$DOL HML_{FX}$	15.46	{0.00}		12.84	{0.00}	
$DOL WML_{FX}^{1,1}$	15.18	{0.00}		15.56	{0.00}	
$DOL VAC$	18.69	{0.00}		18.95	{0.00}	
$DOL FVOL$	15.65	{0.00}		18.71	{0.00}	
$DOL FCORR$	18.11	{0.00}		18.69	{0.00}	
$DOL FILLIQ$	17.66	{0.00}		18.73	{0.00}	
$DOL FPR HML_{FX}$	12.68	{0.00}		12.77	{0.00}	
Panel B: Factor Prices and GLS R^2						
	λ_X	R^2	χ^2	λ_X	R^2	χ^2
	With the DOL			Without the DOL		
$DOL FPR$	0.24 (0.04)	0.71 {0.01}	30.91 {0.02}	0.24 (0.05)	0.52 {0.00}	40.03 {0.00}
$DOL HML_{FX}$	0.64 (0.15)	0.45 {0.00}	48.24 {0.00}	0.62 (0.21)	0.35 {0.00}	48.42 {0.00}
$DOL WML_{FX}^{1,1}$	0.81 (0.16)	0.63 {0.00}	37.44 {0.00}	0.79 (0.16)	0.44 {0.00}	44.12 {0.00}0
$DOL VAC$	-0.17 (0.18)	0.06 {0.00}	74.64 {0.00}	-0.18 (0.27)	0.02 {0.00}	75.10 {0.00}
$DOL FVOL$	0.22 (0.13)	0.54 {0.00}	40.84 {0.00}	0.40 (0.19)	0.06 {0.00}	74.58 {0.00}
$DOL FCORR$	-0.18 (0.10)	0.19 {0.00}	67.90 {0.00}	-0.18 (0.11)	0.04 {0.00}	73.82 {0.00}
$DOL FILLIQ$	0.75 (0.76)	0.06 {0.00}	74.12 {0.00}	0.01 (0.01)	0.04 {0.00}	73.51 {0.00}
$DOL FPR HML_{FX}$	0.24 0.63 (0.04) (0.15)	0.91 {0.72}	11.07 {0.85}	0.24 0.63 (0.05) (0.21)	0.90 {0.66}	11.55 {0.83}

Table A9. Robustness: *Other Variables*

This table presents descriptive statistics of global political risk innovations (ΔPR) along with *Uncertainty*, *Macroeconomic* and *Financial* measures. The first group consists of changes in the ΔVIX , the University of Michigan Consumer Sentiment Index ($\Delta CONS^{SENT}$), the macroeconomic uncertainty of Jurado, Ludvigson, and Ng (2013) (ΔMU_1) and the Economic Policy uncertainty of Baker, Bloom, and Davis (2012) (ΔEPU). *Panel B* shows results for the growth rates of Industrial production (ΔIP), inflation (ΔCPI), consumption ($\Delta CONS$) and employment (ΔEMP). *Panel C* displays summary statistics for financial variables such as the ΔTED spread, the term spread ($TERM$), the default spread (DEF) and the return on the US MSCI index. Moreover, the table shows mean, median, standard deviation, skewness, kurtosis, minimum and maximum values. We also report first order autocorrelations ($AC(1)$), *Corr* is the overall correlation of global political risk with all the other variables. Figures in parenthesis display *p-values*. Currency data is collected from Datastream *via* Barclays and Reuters and contain monthly series from January 1985 to January 2014.

<i>Panel A: Uncertainty Variables</i>					
	ΔPR	ΔVIX	$\Delta CONS^{SENT}$	ΔMU_1	ΔEPU
<i>Mean</i>	0.00	-0.02	-0.04	0.00	0.00
<i>Median</i>	0.00	0.00	-0.20	0.00	-0.02
<i>Std</i>	0.07	3.80	3.97	0.01	0.32
<i>Skew</i>	-0.43	0.90	0.05	0.91	0.29
<i>Kurt</i>	10.32	9.89	4.43	7.85	4.14
<i>Min</i>	-0.46	-15.28	-12.70	-0.05	-1.03
<i>Max</i>	0.35	20.50	17.30	0.08	1.14
<i>AC(1)</i>	0.09 (0.10)	-0.01 (0.85)	-0.03 (0.61)	0.67 (0.00)	-0.54 (0.00)
<i>Corr</i>	1.00 –	-0.06 (0.23)	0.21 (0.00)	0.02 (0.67)	0.12 (0.03)
<i>Panel B: Macro Variables</i>					
	ΔPR	ΔIP	ΔCPI	$\Delta CONS$	ΔEMP
<i>Mean</i>	0.00	0.18	0.23	0.43	0.10
<i>Median</i>	0.00	0.23	0.23	0.42	0.13
<i>Std</i>	0.07	0.01	0.00	0.01	0.00
<i>Skew</i>	-0.43	-1.66	-1.51	-0.12	-1.30
<i>Kurt</i>	10.32	11.88	15.40	8.13	5.93
<i>Min</i>	-0.46	-4.30	-1.79	-2.04	-0.62
<i>Max</i>	0.35	2.06	1.37	2.73	0.48
<i>AC(1)</i>	0.09 (0.10)	0.21 (0.00)	0.43 (0.00)	-0.21 (0.00)	0.76 (0.00)
<i>Corr</i>	1.00 –	-0.07 (0.19)	0.04 (0.51)	-0.08 (0.15)	0.08 (0.13)
<i>Panel C: Financial Variables</i>					
	ΔPR	ΔTED	$TERM$	DEF	$MSCI$
<i>Mean</i>	0.00	0.63	0.02	1.00	0.01
<i>Median</i>	0.00	0.50	0.03	0.92	0.01
<i>Std</i>	0.07	0.46	0.01	0.40	0.05
<i>Skew</i>	-0.43	1.87	-0.25	2.80	-0.74
<i>Kurt</i>	10.32	8.14	1.90	14.79	5.62
<i>Min</i>	-0.46	0.12	0.00	0.55	-0.22
<i>Max</i>	0.35	3.15	0.05	3.38	0.16
<i>AC(1)</i>	0.09 (0.10)	0.96 (0.06)	0.97 (0.00)	0.96 (0.00)	0.03 (0.57)
<i>Corr</i>	1.00 –	0.10 (0.01)	-0.03 (0.55)	0.09 (0.09)	0.17 (0.00)

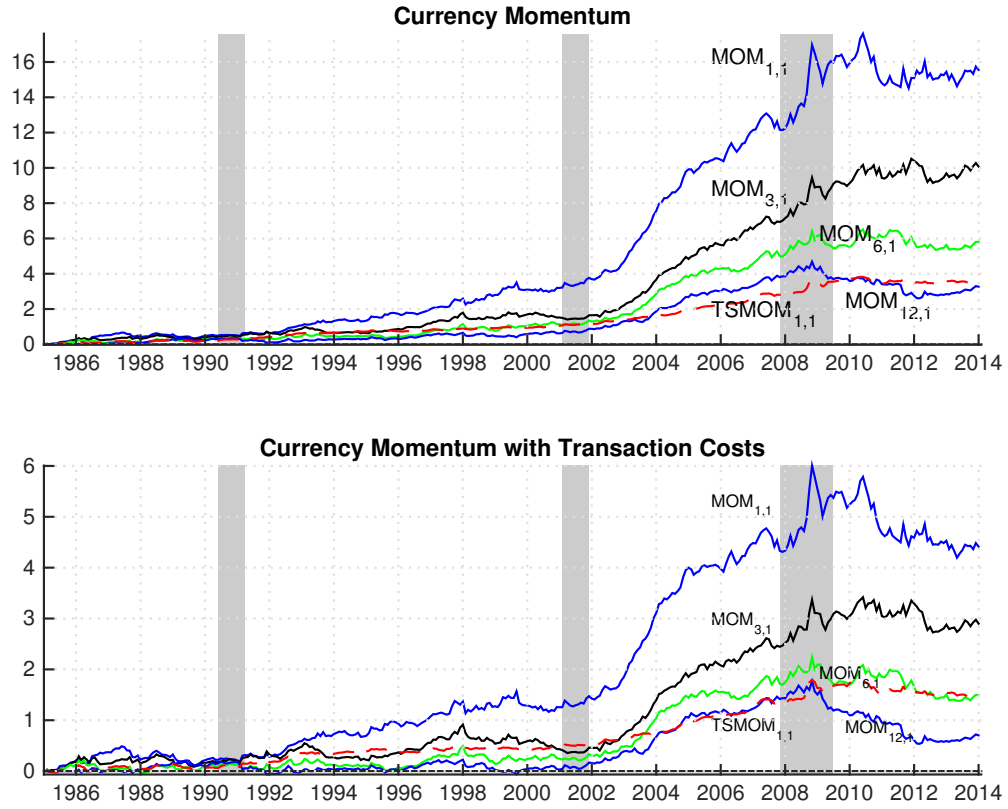


Figure A1. Cumulative Returns of Momentum Portfolios

The figure presents cumulative momentum returns of cross-sectional and time-series momentum (red dashed line). The holding period is one month for both strategies but the formation period ranges from 1-12 months for the cross-sectional momentum and it is one month for the time-series counterpart. The data contain monthly series from January 1985 to January 2014.

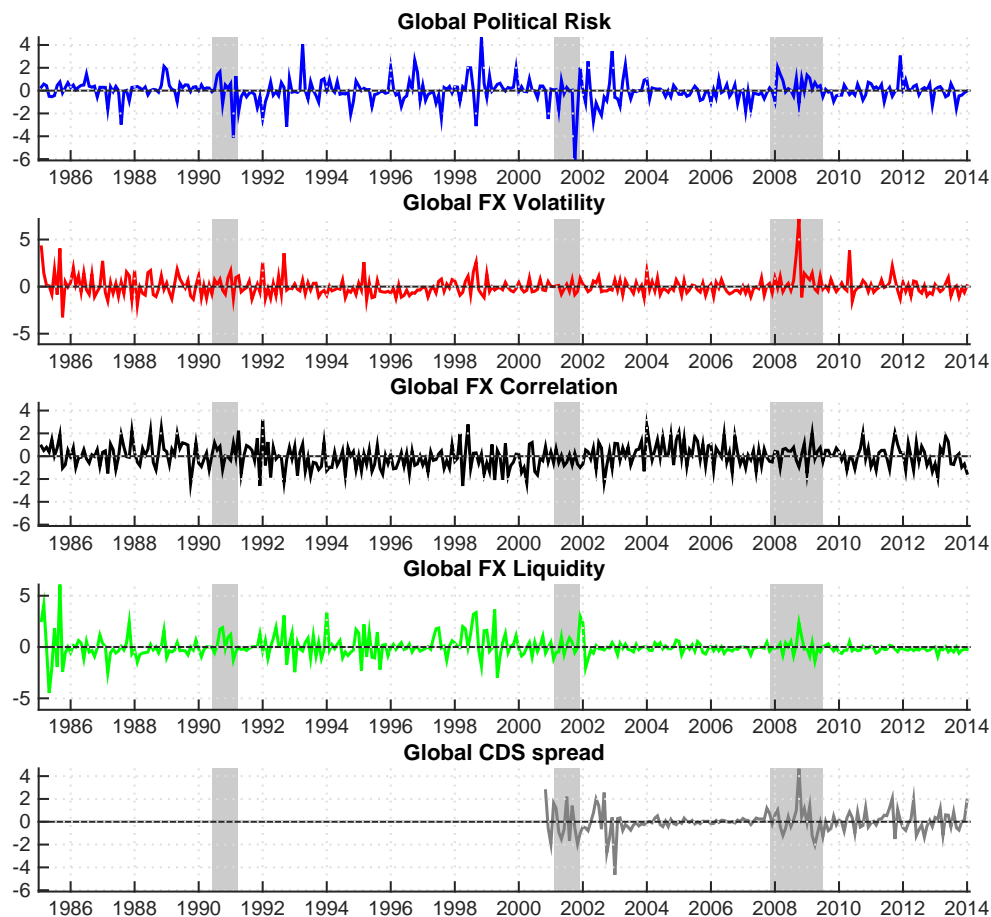


Figure A2. Global Political Risk & Other Determinants of Currency Premia

The figure presents global political risk, global FX volatility, global FX liquidity, global FX liquidity innovations as well as global CDS spreads. All measures are estimated in a similar fashion for consistency and they are standardised. The political risk data is collected from International Country Risk Guide (ICRG), the CDS spreads are obtained from Datastream and Bloomberg and exchange rates are collected from Datastream *via* Barclays and Reuters. The data contain monthly series from January 1985 to January 2014.

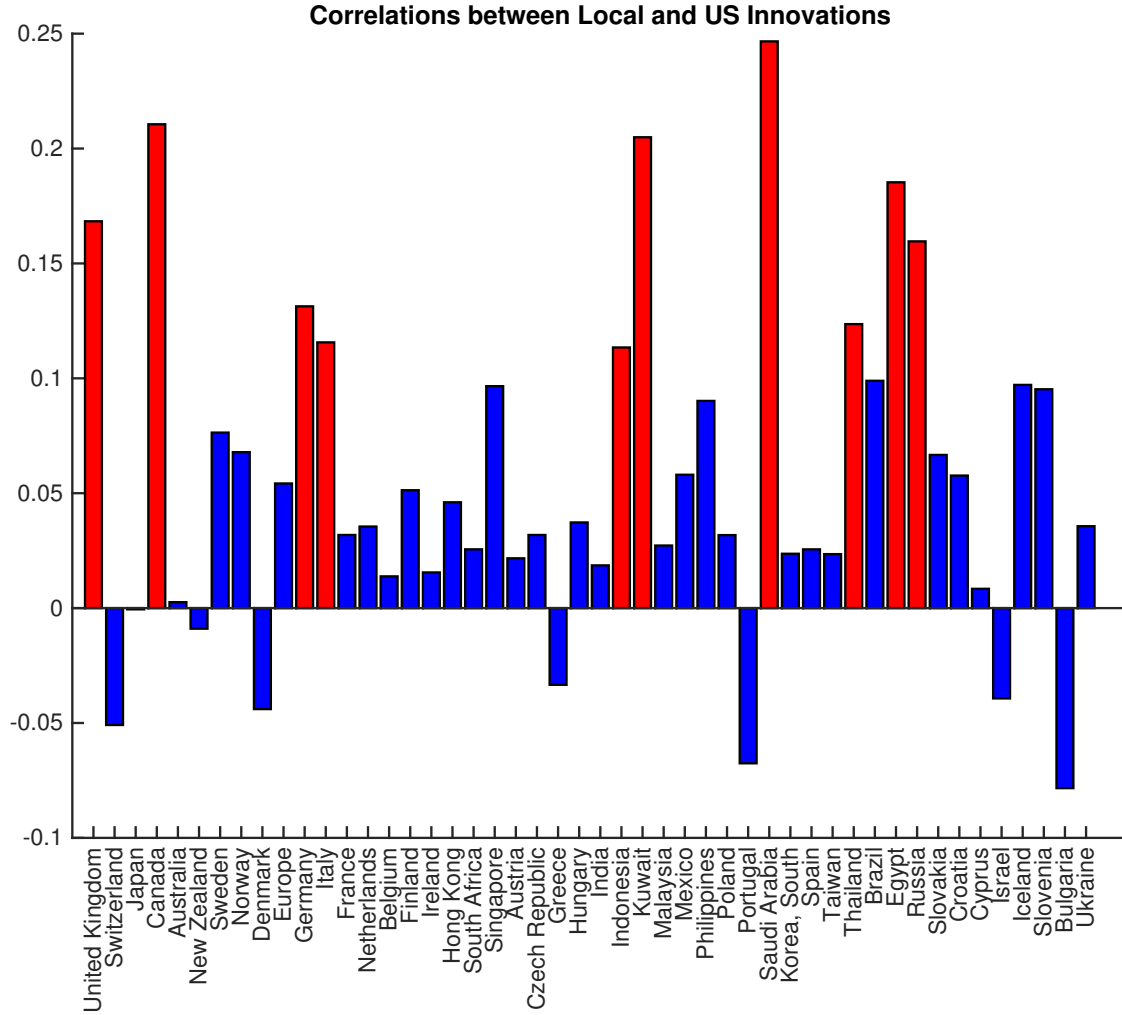


Figure A3. Correlations of U.S. and Foreign Political Risk Innovations

The figure shows correlations between US and foreign country political risk innovations ($\Delta pr_{i,t}$). Bars in red represent statistically significant correlations at 0.05 significance level. The data contain monthly series from January 1985 to January 2014.

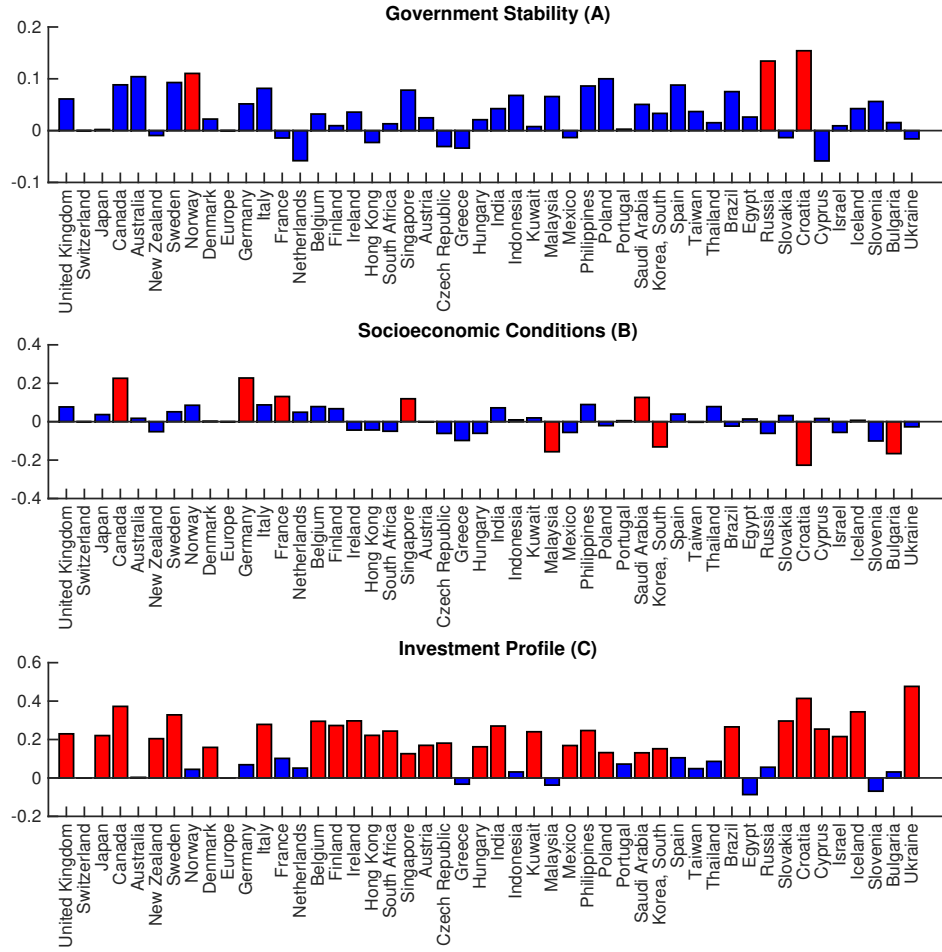


Figure A4. Correlation of U.S. with Foreign Components of Political Risk

The figure shows correlations between foreign and US innovations of the different components of political risk. Bars in red represent statistically significant correlations (i.e. a p-value that is not greater than 0.05). Switzerland and Europe are missing from this dataset. The data contain monthly series from January 1985 to July 2013.

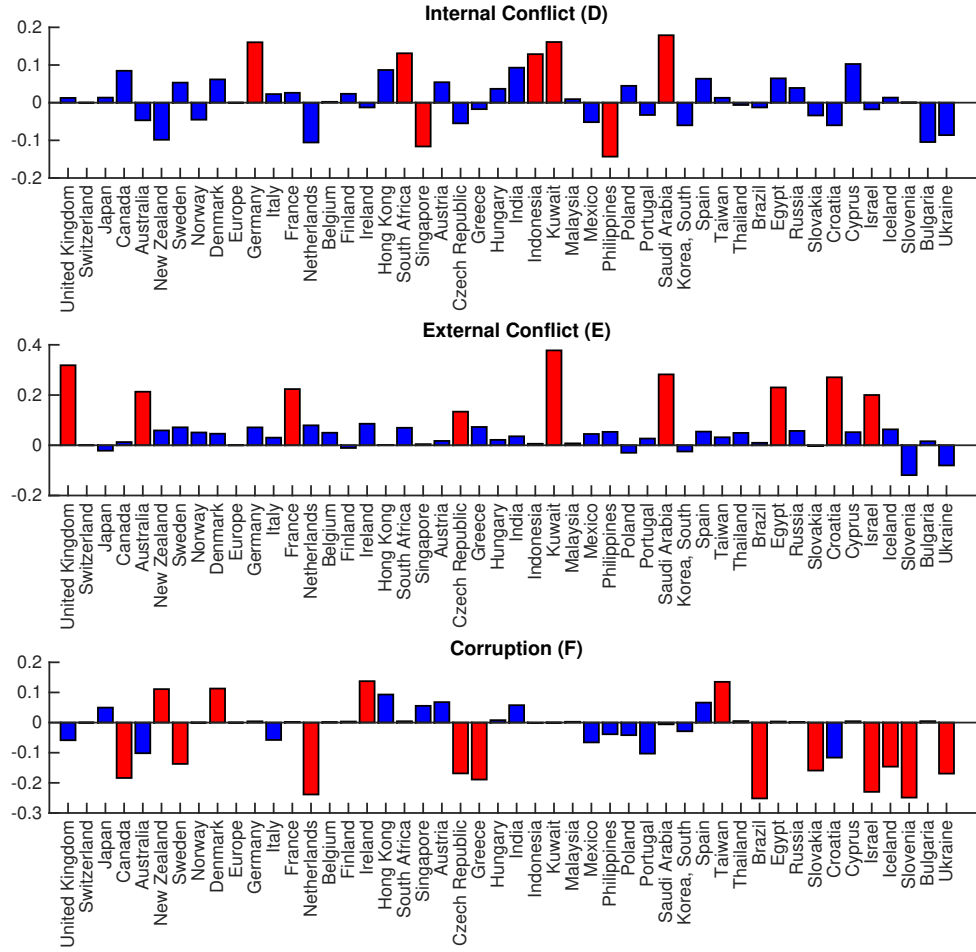


Figure A4. Correlation of U.S. with Foreign Components of Political Risk (*Continued*)

The figure shows correlations between foreign and US innovations of the different components of political risk. Bars in red represent statistically significant correlations (i.e. a p-value that is not greater than 0.05). Switzerland and Europe are missing from this dataset. The data contain monthly series from January 1985 to July 2013.

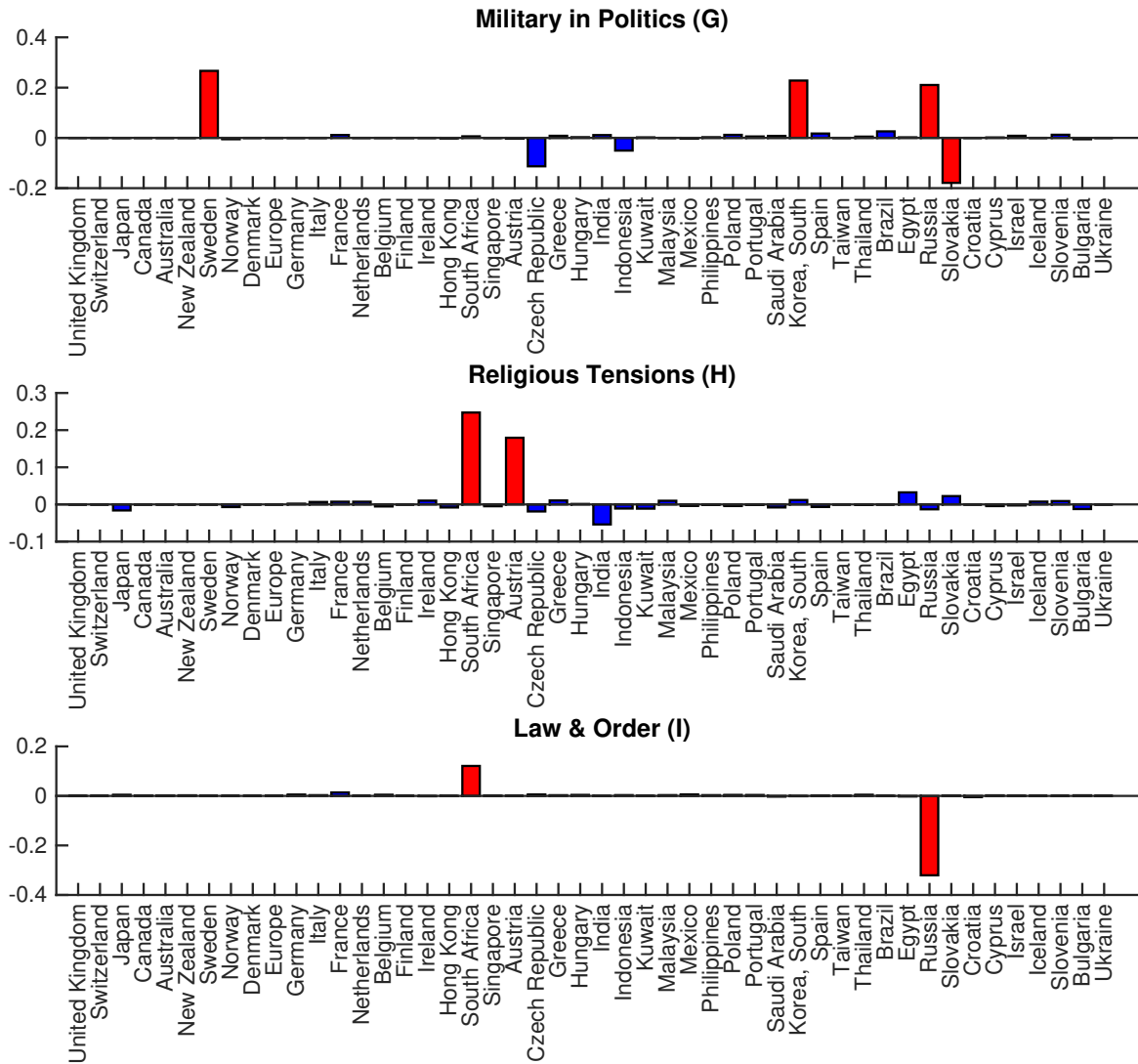


Figure A4. Correlation of U.S. with Foreign Components of Political Risk (*Continued*)

The figure shows correlations between foreign and US innovations of the different components of political risk. Bars in red represent statistically significant correlations (i.e. a p-value that is not greater than 0.05). Switzerland and Europe are missing from this dataset. The data contain monthly series from January 1985 to July 2013.

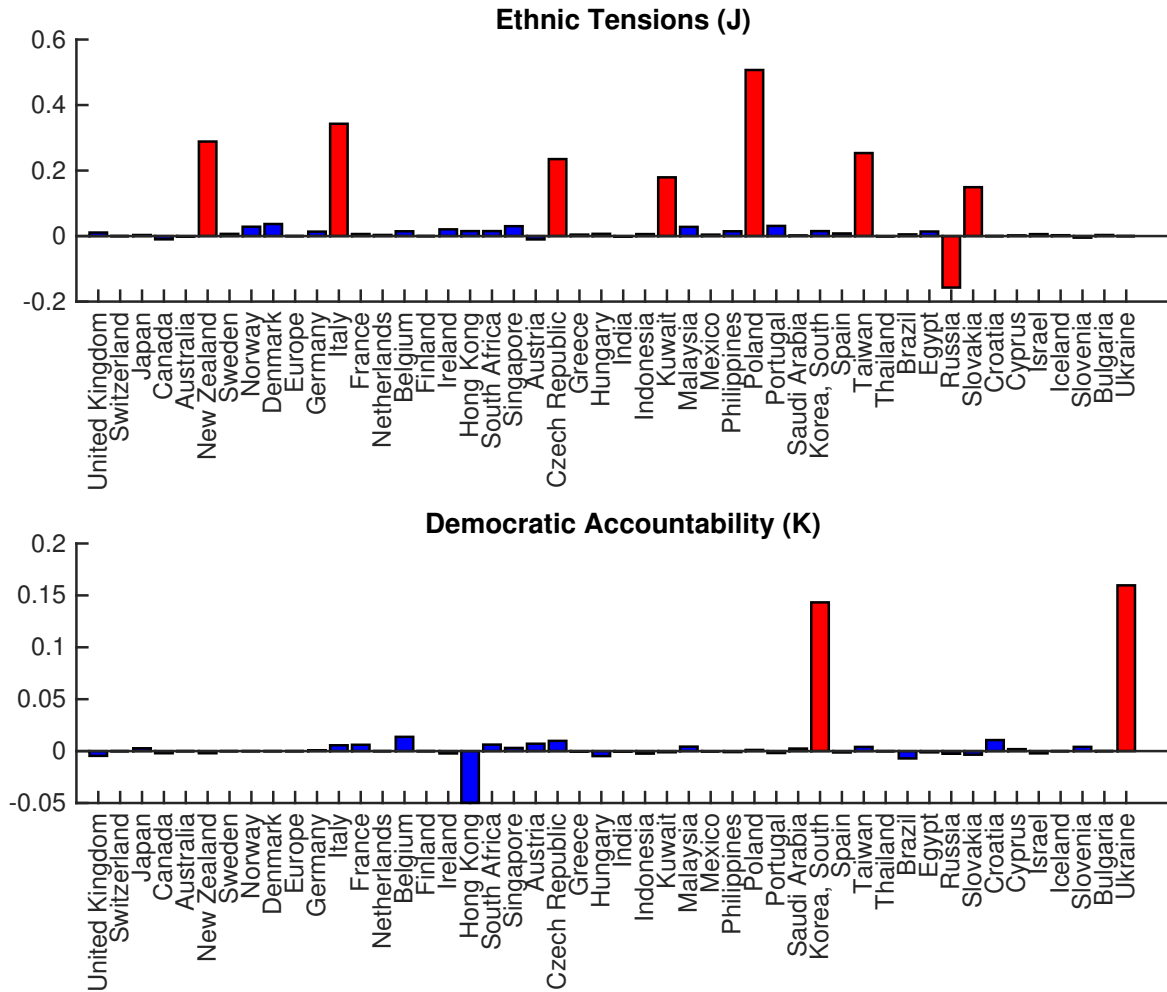


Figure A4. Correlation of U.S. with Foreign Components of Political Risk (*Continued*)

The figure shows correlations between foreign and US innovations of the different components of political risk. Bars in red represent statistically significant correlations (i.e. a p-value that is not greater than 0.05). Switzerland and Europe are missing from this dataset. The data contain monthly series from January 1985 to July 2013.

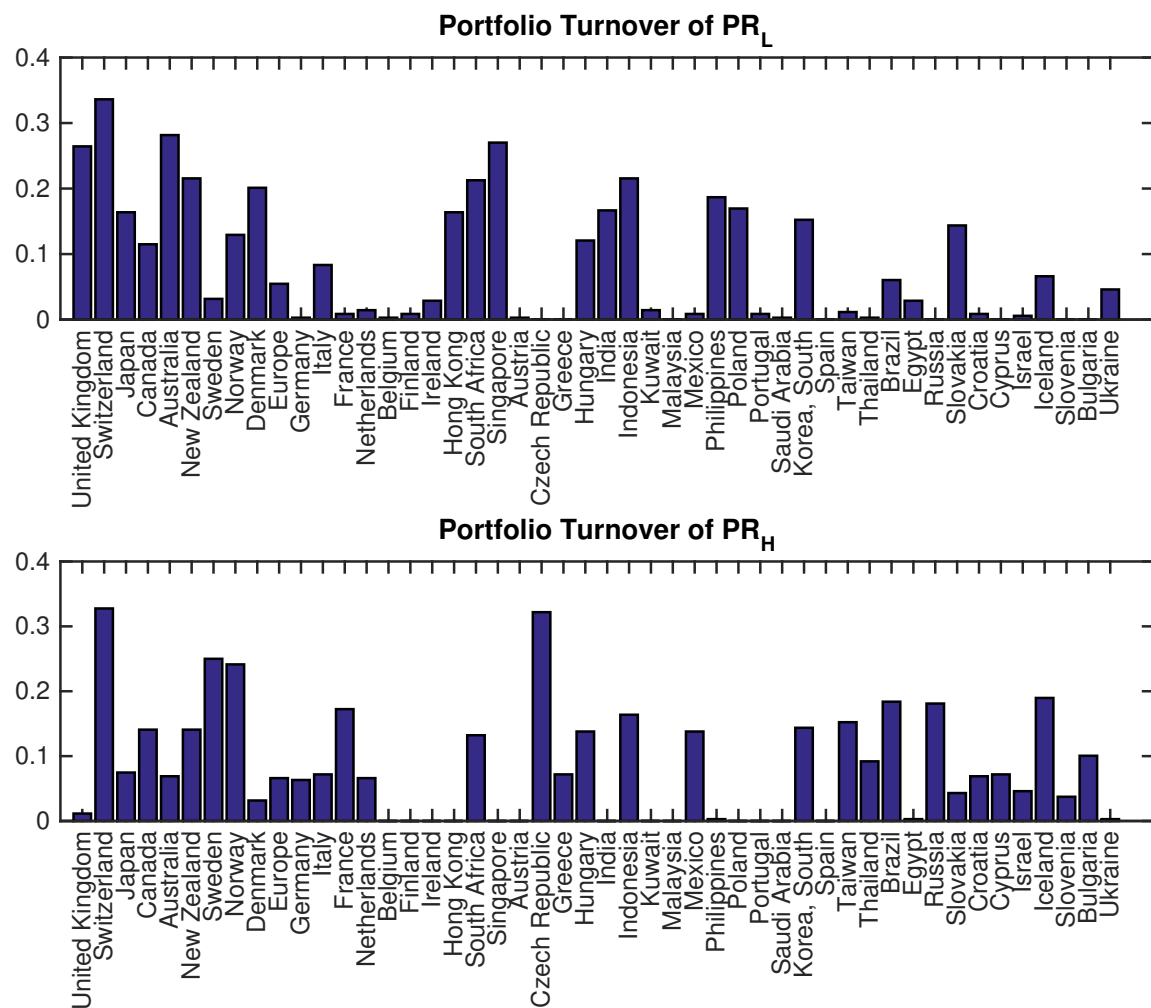


Figure A5. Portfolio Turnover - *Global Political Risk*

The figure shows the portfolio turnover of currency portfolios sorted on global political risk based on a 60-month rolling window. The data contain monthly series from January 1985 to January 2014.

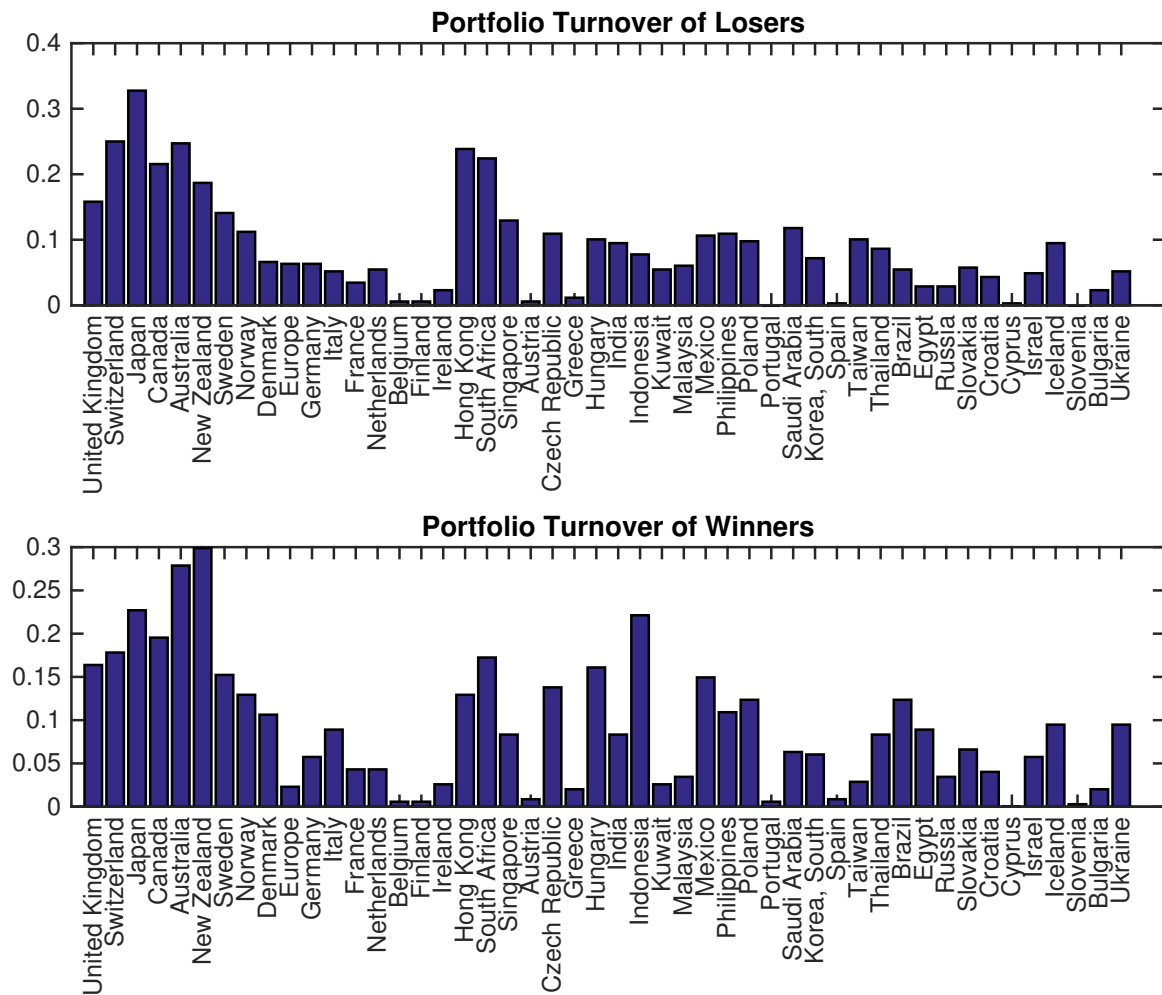


Figure A6. Portfolio Turnover - *Momentum*

The figure shows the portfolio turnover of currency portfolios sorted on currency momentum, i.e. winners vs. losers. The data contain monthly series from January 1985 to January 2014.

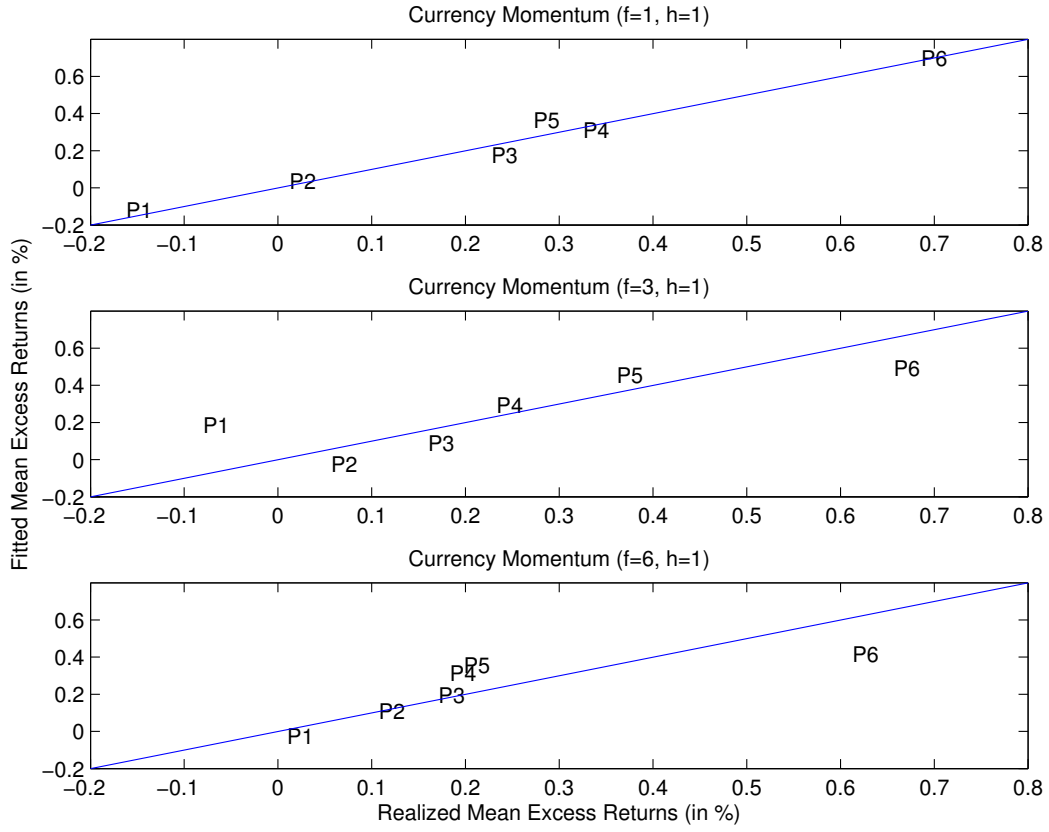


Figure A7. Pricing Error Plots - *Portfolio Level*

The figure displays pricing error plots for the asset pricing models with the DOL as well as the mimicking portfolio of global political risk innovations as the risk factor. We report result for three currency momentum strategy (i.e. $f = 1, 3, 6$). The data contain monthly series from January 1985 to January 2014.

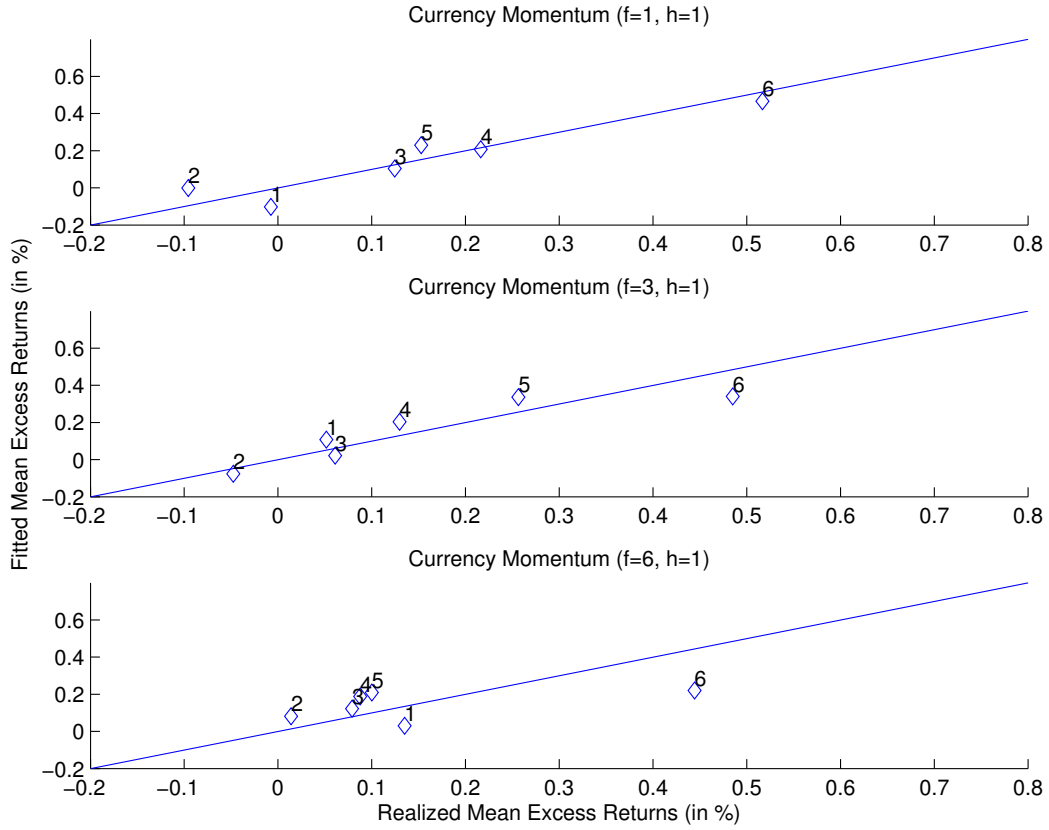


Figure A8. Pricing Error Plots - *Portfolio Level Net Excess Returns*

The figure displays pricing error plots for the asset pricing models with the DOL as well as the mimicking portfolio of global political risk innovations as the risk factor. We report result for three currency momentum strategy (i.e. $f = 1, 3, 6$). We take into consideration the implementation cost of each strategy. The data contain monthly series from January 1985 to January 2014.

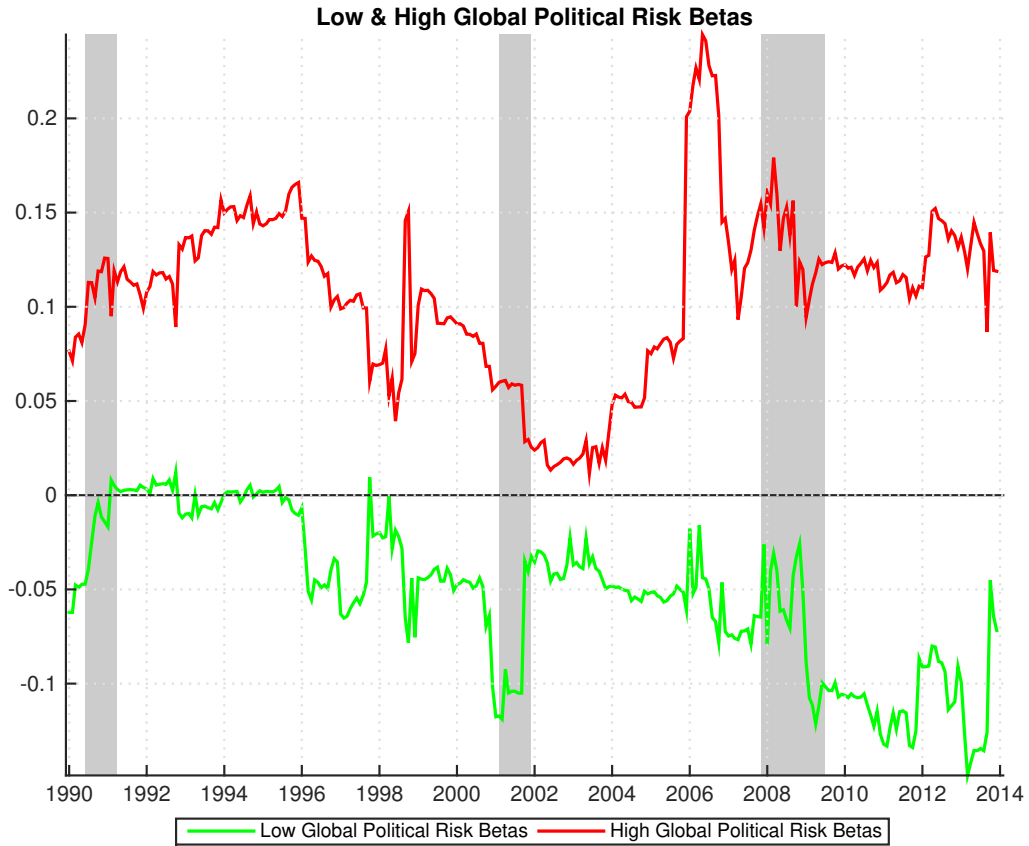


Figure A9. Global Political Risk Betas

The figure presents average rolling betas of low and high political risk portfolios that are estimated based on a 60-month rolling window. The data contain monthly series from January 1985 to January 2014.

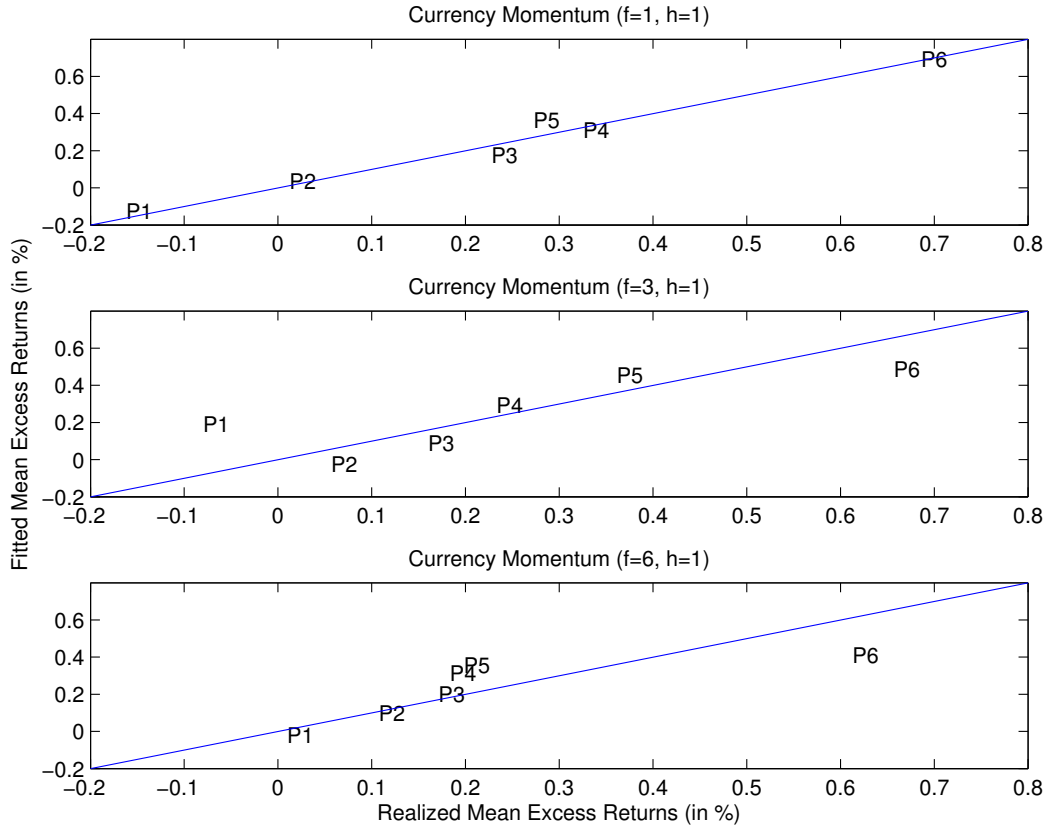


Figure A10. Conditional Pricing Error Plots - *Portfolio Level*

The figure displays pricing error plots for the asset pricing models with the DOL as well as the conditional (on past returns) mimicking portfolio of global political risk innovations as the risk factor. We report result for thee currency momentum strategy (i.e. $f = 1, 3, 6$). The data contain monthly series from January 1985 to January 2014.

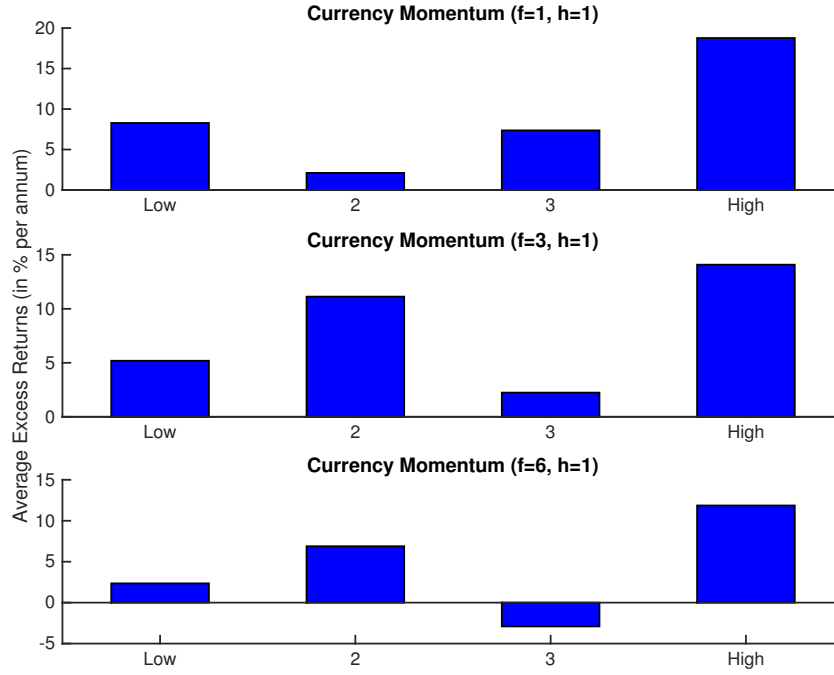


Figure A11. Currency Momentum and Global Political Risk

The figure visualizes the relationship between global political risk and currency momentum. Particularly, we show annualized average excess returns for currency momentum portfolios conditional on global political risk innovations in the top and bottom quartiles of each sample distribution. Each bar represents annualized mean returns of going long the winner portfolio (based on past returns) and short the loser portfolio (based on past returns) for different formation periods (i.e. $f = 1, 3, 6$). We consider the 33 countries of the filtered data. The data contain monthly series from January 1985 to January 2014.

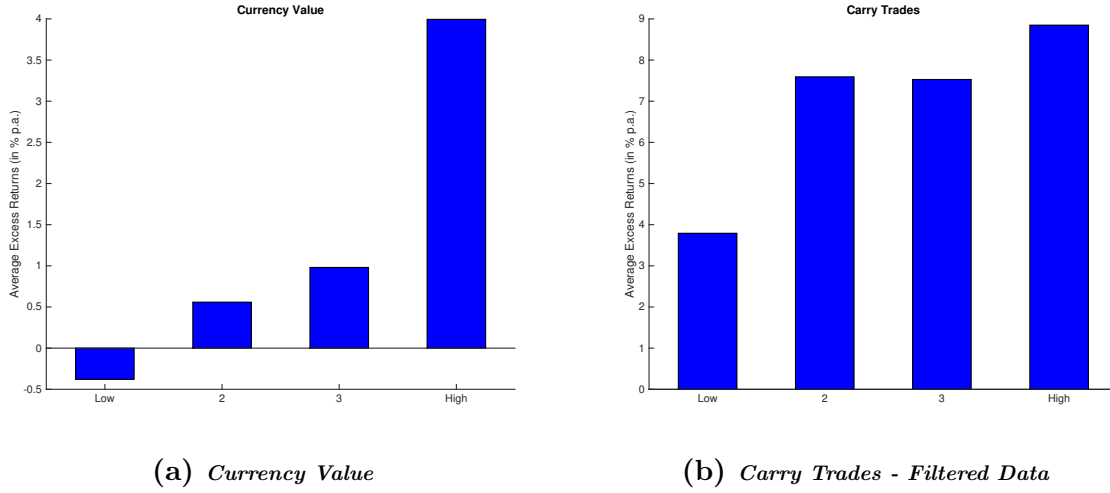


Figure A12. Currency Value, Carry Trades and Global Political Risk

The figure visualizes the relationship between global political risk and currency value as well as currency carry trades. Particularly, we show annualized average excess returns for currency value and carry trade portfolios conditional on global political risk innovations in the top and bottom quartiles of each sample distribution. *Panel A* shows results for the currency value and *Panel B* for currency carry trades. In *Panel A* Each bar represents annualized mean returns of going long the *undervalued* currency (relative to PPP) portfolio and short the *overvalued* (relative to PPP) currency portfolio. In *Panel B* Each bar represents annualized mean returns of going long the *high* interest rate portfolio and *short* the low interest rate portfolio. For the currency value we use a group of 22 currencies, as they are analysed in the text and carry trades are based on the 33 countries of the filtered data. The data contain monthly series from January 1985 to January 2014.

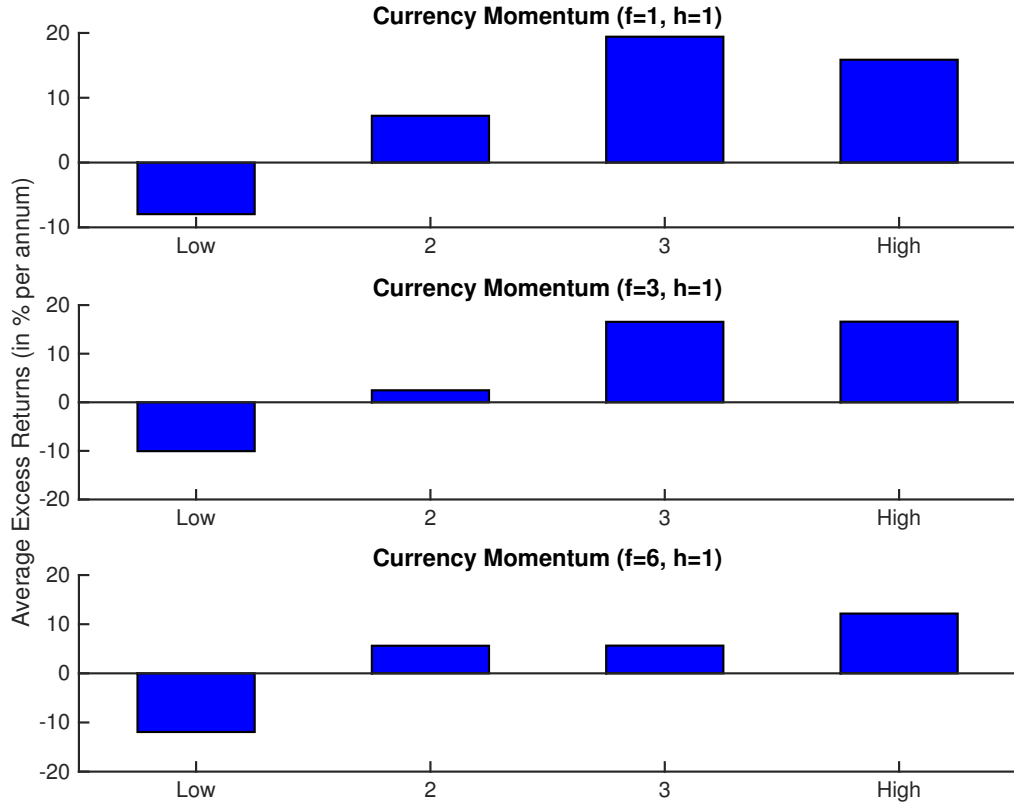


Figure A13. Currency Momentum and Global Political Risk (IFO)

The figure visualizes the relationship between global political risk (IFO data) and currency momentum returns. Particularly, we show annualized average excess returns for currency momentum portfolios conditional on global political risk innovations in the top and bottom quartiles of each sample distribution. Each bar represents annualized mean returns of going long the loser portfolio and short the winner portfolio for different formation periods (i.e. $f = 1, 3, 6$). *Panel A* shows results for the raw data and *Panel B* for the filtered data. The data contain quarterly series from 1992:Q1 to 2013:Q4.

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