

Internet Appendix for “Exchange Rates and Monetary Policy Uncertainty”

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This appendix reproduces the article’s main tables for the individual currencies in our sample.

Pre- and Post-Announcement Returns: Table IA.I reports results of regressing individual currency returns on the announcement dummy over three different time windows: the entire day (4pm to 4pm), the pre-announcement window (4pm to 215pm), and the post-announcement window (215pm to 4pm). The results for the entire day, reported in Panel A, are in line with those presented in Table I in the main article: the difference between announcement- and nonannouncement-day returns is statistically different from zero for all currencies except for the Japanese yen and the Norwegian krona. Panels B and C report the estimated coefficients for the announcement dummy for returns over the pre- and post-announcement windows, respectively. As the table shows (and consistent with our results for interest rate-sorted portfolios in Table IV in the main article), the difference between announcement- and nonannouncement-day returns is positive and significant for a majority of the individual currencies over both time windows.

Post-Announcement Returns and Monetary Policy: Table IA.II presents results of regressing individual currencies’ returns over the post-announcement window on the announcement dummy interacted with our monetary policy shock indicator. Recall that by Proposition 3, the difference between announcement- and nonannouncement-day returns over the post-announcement window should increase if the Fed adopts an expansionary policy. As the results illustrate, all estimated coefficients are positive and significant as expected. These results are also consistent with the corresponding results for interest rate-sorted portfolios reported in Table VI in the main article.

*Citation format: Mueller, Philippe, Alireza Tahbaz-Salehi, and Andrea Vedolin, Internet Appendix for “Exchange Rates and Monetary Policy Uncertainty,” *Journal of Finance*, Doi:10.1111/jofi.12499. Please note: Wiley-Blackwell is not responsible for the content or functionality of any supporting information supplied by the authors. Any queries (other than missing material) should be directed to the authors of the article.

Bootstrap Exercise: Table IA.III replicates the bootstrap exercise in Table XII of the main article for the individual currencies in our sample. In particular, we draw with replacement a time series with length equal to the number of announcement days (160) from the empirical distribution of nonannouncement-day returns and report the probability of observing a mean greater than the corresponding value on announcement days. We note that most probabilities are below 10%, except for the Japanese yen and the Norwegian Krona, which are the two currencies that do not exhibit a significant difference between announcement and nonannouncement returns as in Table I in the main article. This pattern remains unchanged whether or not transactions costs are taken into account.

Transaction Costs: Table IA.IV reports summary statistics for individual currencies' returns after taking transaction costs into account by adjusting for bid-ask spreads. We note that the numbers are similar to those reported in Table I in the main article: except for the Swedish krona, all currencies that exhibit a significant return before adjusting for transaction costs have positive and significant returns after the adjustment.

REFERENCES

- Nakamura, Emi, and Jón Steinsson, 2015, High frequency identification of monetary non-neutrality, NBER Working Paper No. 19260.
- Newey, Whitney K., and Kenneth D. West, 1987, A simple, positive semi-definite, heteroskedasticity and autocorrelation consistent covariance matrix, *Econometrica* 55, 703–708.

Table IA.I
Pre- and Post-Announcement Returns of Individual Currencies

This table reports results of time-series regressions of individual currency returns for different time windows. The dependent variable is the currencies' excess return from 4pm to 4pm (Panel A), from 4pm to 215pm (Panel B), and from 215pm to 4pm (Panel C). "Announcement" is a dummy variable that is equal to one on days when the FOMC makes an announcement and zero otherwise. The data run from January 1, 1994 to December 31, 2013. Numbers in parentheses denote Newey and West (1987) t -statistics.

	AUD	CAD	CHF	EUR	GBP	JPY	NOK	NZD	SEK
Panel A: Entire Day (4pm to 4pm)									
Constant	1.163 (0.98)	0.421 (0.55)	-0.108 (-0.10)	-0.050 (-0.05)	0.155 (0.19)	-0.973 (-0.92)	0.677 (0.61)	1.745 (1.48)	0.641 (0.56)
Announcement	16.120 (2.51)	16.271 (3.96)	9.615 (1.69)	10.186 (1.96)	13.297 (2.95)	-3.351 (-0.59)	6.688 (1.12)	13.920 (2.19)	9.789 (1.64)
Adj. R^2	0.11%	0.31%	0.04%	0.06%	0.16%	-0.01%	0.01%	0.08%	0.03%
Panel B: Pre-Announcement Window (4pm to 215pm)									
Constant	0.527 (0.46)	0.093 (0.13)	-0.715 (-0.69)	-0.583 (-0.62)	-0.696 (-0.84)	-0.522 (-0.50)	0.131 (0.12)	1.686 (1.50)	0.275 (0.25)
Announcement	11.002 (1.79)	11.601 (2.92)	6.700 (1.19)	8.207 (1.62)	13.766 (3.08)	-1.979 (-0.35)	3.446 (0.59)	11.203 (1.84)	7.215 (1.20)
Adj. R^2	0.05%	0.16%	0.01%	0.03%	0.18%	-0.02%	-0.01%	0.05%	0.01%
Panel C: Post-Announcement Window (215pm to 4pm)									
Constant	0.635 (1.87)	0.328 (1.54)	0.606 (2.55)	0.533 (2.30)	0.851 (4.28)	-0.452 (-1.90)	0.545 (1.99)	0.059 (0.16)	0.367 (1.32)
Announcement	5.118 (2.78)	4.670 (4.08)	2.915 (2.27)	1.979 (1.58)	-0.470 (-0.44)	-1.373 (-1.07)	3.243 (2.19)	2.717 (1.38)	2.574 (1.72)
Adj. R^2	0.14%	0.33%	0.09%	0.03%	-0.02%	0.00%	0.08%	0.02%	0.04%

Table IA.II
Monetary Policy Shock and Post-Announcement Returns

This table reports results of time-series regressions of individual currency returns for the post-announcement window. The dependent variable is the currencies' excess return from 215pm to 4pm. "Announcement" is a dummy variable that is equal to one on days when the FOMC makes an announcement and zero otherwise. "MPI" is Nakamura and Steinsson (2015) indicator of monetary policy shock. The data run from January 1, 1994 to December 31, 2013. Numbers in parentheses denote Newey and West (1987) t -statistics.

	AUD	CAD	CHF	EUR	GBP	JPY	NOK	NZD	SEK
Constant	0.635 (1.88)	0.328 (1.55)	0.606 (2.60)	0.533 (2.35)	0.851 (4.35)	-0.452 (-1.91)	0.545 (2.01)	0.059 (0.16)	0.367 (1.33)
Announcement	5.966 (3.25)	5.187 (4.54)	4.068 (3.23)	3.100 (2.52)	0.437 (0.41)	-0.665 (-0.52)	4.308 (2.94)	3.531 (1.80)	3.484 (2.34)
MPI $\times$ Announcement	2.409 (6.85)	1.468 (6.70)	3.273 (13.55)	3.182 (13.50)	2.573 (12.67)	2.010 (8.20)	3.022 (10.77)	2.309 (6.13)	2.583 (9.05)
Adj. R^2	1.12%	1.26%	3.85%	3.77%	3.29%	1.40%	2.48%	0.80%	1.74%

Table IA.III
Bootstrap Exercise for Individual Currencies

This table reports the likelihood of observing an average return as large as mean announcement-day returns in a sample drawn from the empirical distribution of returns on nonannouncement days for the G10 currencies. "entire day", "pre-ann", and "post-ann" correspond to 4pm to 4pm, 4pm to 215pm, and 215pm to 4pm time windows, respectively. The data run from January 1, 1994 to December 31, 2013.

	AUD	CAD	CHF	EUR	GBP	JPY	NOK	NZD	SEK
Panel A: Before Transaction Costs									
entire day	0.40%	0.00%	3.40%	4.20%	0.00%	70.00%	12.40%	1.20%	5.00%
pre-ann.	3.40%	0.20%	11.40%	6.00%	0.00%	61.00%	26.80%	3.80%	11.60%
post-ann.	0.00%	0.00%	0.20%	4.00%	0.67%	88.20%	1.40%	5.60%	3.00%
Panel B: Ex Transaction Costs									
entire day	1.20%	0.00%	3.60%	1.60%	0.20%	70.40%	10.00%	1.80%	5.40%
pre-ann.	4.20%	0.00%	10.20%	3.60%	0.20%	62.20%	24.40%	3.20%	11.00%
post-ann.	1.00%	0.00%	0.40%	4.40%	0.69%	88.80%	2.20%	6.60%	4.80%

Table IA.IV
Summary Statistics for Individual Currency Returns Net Transaction Costs

This table reports summary statistics for individual currency returns on announcement days net of transaction costs. “Bootstrap CI” indicates bootstrapped 95% confidence intervals. “SR” is the Sharpe ratio. All numbers are expressed in daily bps except for Sharpe ratios, which are annualized taking into account the annual frequency of FOMC announcements (8/252). Returns are sampled from 4pm to 4pm ET and cover the period January 1, 1994 to December 31, 2013.

	AUD	CAD	CHF	EUR	GBP	JPY	NOK	NZD	SEK
mean	17.256	14.042	7.320	9.653	12.502	-7.191	0.390	14.949	5.751
<i>t</i> -stat	(2.42)	(2.78)	(1.06)	(1.76)	(2.58)	(-1.29)	(0.06)	(2.11)	(0.96)
Bootstrap CI	[5.22 28.93]	[6.09 22.64]	[-3.29 19.52]	[0.68 19.21]	[4.25 20.35]	[-16.11 2.58]	[-9.11 10.10]	[4.29 27.39]	[-3.37 16.39]
skewness	8.210	18.287	9.456	8.146	6.169	5.236	5.062	7.787	11.474
kurtosis	1.177	2.469	1.545	1.442	0.919	0.700	0.436	1.133	1.666
SR	0.542	0.623	0.237	0.396	0.580	-0.289	0.014	0.474	0.216