Currency Wars? Unconventional Monetary Policy Does Not Stimulate Exports

Online Appendices

Andrew K. Rose*

Draft: December 17, 2018

^{*} B.T. Rocca Jr. Professor, Haas School of Business at the University of California, Berkeley, NBER research associate, CEPR research fellow, and ABFER senior fellow. Current and earlier (longer) versions of this paper, online appendices, the main STATA data sets used in the paper, and key output are all available at http://faculty.haas.berkeley.edu/arose.

The (205) countries and territories are listed in Appendix Table A1.

Appendix Tables A2 and A3 provide further robustness checks along the lines of Table 4 of the paper. The column on the left of Table A2 records the coefficient estimate of γ (and its robust standard error) when quantitative easing is the unconventional monetary policy in the exporter and not in the importer (as opposed to *either* quantitative easing or negative nominal interest rates, as in Table 4); analogous results for imports are in Table A3. In the center of Tables A2 and A3 are analogous columns for negative nominal interest rates. At the right, both QE and NNIR are included simultaneously in (1), and the p-value for the test of equal QE and NNIR effects is tabulated (high p-values are consistent with the null hypothesis of equality). For ease of comparison, the top row of Tables A2 and A3 records results from the baseline, columns 2 and 3 of Tables 2 and 3. In all cases, the results of Tables A2 and A3 are similar to and consistent with those of Table 4. Using the fourth lag delivers weak results and using data before 2011 is required for statistical significance. But even these exceptions refer to the statistical precision rather than the sign of the coefficients; in all other cases, the estimates of γ remain negative, statistically significant, and similar in size to my baseline results.

Appendix Table A1: List of Countries

Chile

AfghanistanDominicaLebanonSenegalAlbaniaDominican RepublicLesothoSerbia

Algeria Ecuador Liberia Serbia & Montenegro

American Samoa Egypt Libya Seychelles Angola El Salvador Lithuania Sierra Leone Antigua & Barbuda Equatorial Guinea Luxembourg Singapore Argentina Eritrea Macedonia Slovak Republic Armenia Estonia Madagascar Slovenia

Solomon Islands Aruba Ethiopia Malawi Falkland Islands Australia Malaysia Somalia Austria Faroe Islands Maldives South Africa Azerbaijan Fiji Mali South Sudan **Bahamas** Finland Malta Spain Bahrain Sri Lanka France Mauritania Bangladesh St. Kitts & Nevis Gabon Mauritius **Barbados** Gambia Mexico St. Lucia

Belarus Georgia Moldova St. Vincent & Belgium Germany Mongolia Grenadines Belize Ghana Montenegro Sudan Suriname Benin Gibraltar Morocco Bermuda Greece Swaziland Mozambique Bhutan Greenland Myanmar Sweden Bolivia Grenada Namibia Switzerland Bosnia & Herzegovina Guam Nauru Svria Botswana Guatemala Nepal Taiwan Netherlands Tajikistan Brazil

Guinea Brunei Darussalam **Netherlands Antilles** Tanzania Guinea-Bissau Thailand Bulgaria Guyana New Caledonia Burkina Faso Haiti New Zealand Timor-Leste Burundi **Honduras** Nicaragua Togo Cambodia Hungary Niger Tonga

Cameroon Iceland Nigeria Trinidad & Tobago Canada India Norway Tunisia Cape Verde Indonesia Oman Turkey Central African Republic Iran **Pakistan** Turkmenistan Chad Palau Tuvalu Iraq

Panama

Uganda

China, Hong Kong Israel Papua New Guinea Ukraine China, Macao **United Arab Emirates** Italy Paraguay China, Mainland **United Kingdom** Jamaica Peru Colombia Japan **Philippines United States** Comoros Jordan Poland Uruguav Congo, DR Kazakhstan Portugal Uzbekistan Congo, Rep Kenya Qatar Vanuatu Costa Rica Kiribati Romania Venezuela

Cote d'Ivoire Korea, North Russian Federation Vietnam
Croatia Korea, South Rwanda West Bank & Gaza

CubaKosovoSaint HelenaYemenCyprusKuwaitSaint Pierre & MiquelonZambiaCzech RepublicKyrgyz RepublicSamoaZimbabwe

Denmark Laos Sao Tome & Principe

Djibouti Latvia Saudi Arabia

Ireland

Appendix Table A2: Unconventional Monetary Policy and Exports, Sensitivity Analysis

	Quantitative Easing by Exporter, not Importer	Neg. Nom. Int. Rate in Exporter, not Importer	Test for Equality (p-value)
Default	09**	09**	.73
	(.02)	(.03)	
Substitute Announced QE	08**		.96
	(.02)		
Substitute Stock QE	13**		.06
	(.03)		
Substitute Negative		09**	.99
Official Policy Interest		(.03)	
Rate			
First lag of UMP	09**	07*	.36
	(.02)	(.03)	
Fourth lag of UMP	06*	06	.98
	(.02)	(.03)	
First lead of UMP	08**	09**	.94
	(.02)	(.03)	
After 2011	01	04	.52
D (2046	(.02)	(.03)	47
Before 2016	07**	06	.47
	(.02)	(.03)	
Drop US	09**	09**	.68
as UMP source	(.02) 09**	(.03) 09**	0.5
Drop UK			.85
as UMP source	(.02) 09**	(.03)	
Drop Japan		08* (03)	.55
as UMP source	(.02) 08**	(.03)	63
Drop Denmark as UMP source	(.02)	08* (03)	.63
	08**	(.03) 08*	cc
Drop Sweden as UMP source	(.02)	08** (.03)	.66
Drop Switzerland	08**	11**	.46
as UMP source	(.02)	(.03)	.40
Drop Germany	08**	08*	.82
as UMP source	(.02)	(.03)	.02
Drop China, HK	08**	08*	.66
as UMP source	(.02)	(.03)	.00
Drop Asians DCs	09**	11**	.78
as UMP "target"	(.03)	(.04)	./0
Drop Africans	09**	07*	.45
as UMP "target"	(.02)	(.03)	.+3
Drop Latin/Caribbean	05*	07*	.85
as UMP "target"	(.02)	(.03)	.03
Drop 3σ outliers	07**	06*	.69
z.op co outileis	(.02)	(.03)	.03

Coefficients, with robust standard errors (clustered by country-pair dyad) recorded in parentheses. Coefficients significantly different from zero at the .05 (.01) level marked by one (two) asterisk(s). Each cell stems from a separate regression. Least squares estimation; regressand is log bilateral exports in US\$. Binary regressors included but not recorded for exporter + importer in: a) currency union; and b) regional trade agreement. Fixed effects included for all sets of: a) exporter*quarter, b) importer*quarter, and c) exporter*importer. Quarterly data 2000Q1-2016Q2 for over 200 countries and territories; default regression has 1,313,527 observations.

Appendix Table A3: Unconventional Monetary Policy and Imports, Sensitivity Analysis

	Quantitative Easing by Importer, not Exporter	Neg. Nom. Int. Rate in Importer, not Exporter	Test for Equality (p-value)
Default	08**	08**	.83
	(.02)	(.03)	
Substitute Announced QE	08**		.98
	(.02)		
Substitute Stock QE	13**		.07
	(.03)		
Substitute Negative		09**	.90
Official Policy Interest Rate		(.03)	
First lag of UMP	09**	07*	.41
	(.02)	(.03)	
Fourth lag of UMP	06*	06	.96
	(.02)	(.03)	
First lead of UMP	08**	09**	.89
	(.02)	(.03)	
After 2011	01	04	.25
	(.02)	(.03)	
Before 2016	07**	06	.58
	(.02)	(.03)	
Drop US	09**	09**	.84
as UMP source	(.02)	(.03)	
Drop UK	09**	09**	.79
as UMP source	(.02)	(.03)	
Drop Japan	09**	08**	.75
as UMP source	(.02)	(.03)	
Drop Denmark	08**	07*	.53
as UMP source	(.02)	(.03)	
Drop Sweden	08**	08*	.82
as UMP source	(.02)	(.03)	44
Drop Switzerland	08**	11**	.41
as UMP source	(.02) 08**	(.03)	76
Drop Germany		08* (03)	.76
as UMP source	(.02) 08**	(.03) 08*	.83
Drop China, HK as UMP source	(.02)		.83
	09**	(.03) 11**	£E.
Drop Asians DCs as UMP "target"	(.03)	(.04)	.65
Drop Africans	09**	07*	.39
as UMP "target"	(.02)	(.03)	.55
Drop Latin/Caribbean	05*	07*	.61
as UMP "target"	(.02)	(.03)	.01
Drop 3o outliers	07**	06*	.68
Drop 30 outliers	(.02)	(.03)	.00

Coefficients, with robust standard errors (clustered by country-pair dyad) recorded in parentheses. Coefficients significantly different from zero at the .05 (.01) level marked by one (two) asterisk(s). Each cell stems from a separate regression. Least squares estimation; regressand is log bilateral imports in US\$. Binary regressors included but not recorded for exporter + importer in: a) currency union; and b) regional trade agreement. Fixed effects included for all sets of: a) exporter*quarter, b) importer*quarter, and c) exporter*importer. Quarterly data 2000Q1-2016Q2 for over 200 countries and territories; default regression has 1,325,058 observations.