Online Appendix to Exchange Rate Pass-Through: What Has Changed Since the Crisis?

Martina Jašová,[a] Richhild Moessner,[b,c] and Előd Takáts[b]
[a]Barnard College, Columbia University, United States
[b]Bank for International Settlements
[c]CESifo

Table A1. How Did the ERPT Change in the Post-Crisis Period? (full results for table 1 in main text)

	Dependent Variable: Inflation$_t$							
	Emerging Market Economies				Advanced Economies			
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Inflation$_{t-1}$	0.675***	0.691***	0.690***	0.606***	0.326***	0.299***	0.313***	0.342***
	(0.0458)	(0.0456)	(0.0449)	(0.0458)	(0.0999)	(0.0817)	(0.0891)	(0.0906)
ΔNEER$_t$ = Contemporaneous ERPT	0.120***	0.116***	0.117***	0.0104***	0.00470	−0.000989	−0.00380	0.00594
	(0.0341)	(0.0315)	(0.0312)	(0.0331)	(0.00595)	(0.00534)	(0.00763)	(0.00570)
ΔNEER$_{t-1}$	0.0725**	0.0716**	0.0711**	0.0763**	0.00286	0.00228	0.000844	7.94e-05
	(0.0295)	(0.0320)	(0.0320)	(0.0293)	(0.0100)	(0.00897)	(0.00776)	(0.0104)
ΔNEER$_{t-2}$	0.0117	0.00728	0.00736	0.0161	0.000848	0.000326	0.000548	0.000225
	(0.0226)	(0.0163)	(0.0165)	(0.0237)	(0.00805)	(0.00731)	(0.00722)	(0.0108)
ΔNEER$_{t-3}$	0.0275**	0.0271**	0.0273**	0.0340**	−0.00249	−0.00808	−0.0103	−0.00212
	(0.0118)	(0.0109)	(0.0105)	(0.0132)	(0.0106)	(0.00738)	(0.00745)	(0.0111)
ΔNEER$_t^2$	0.190*	0.188	0.198*	0.204**	0.0386	−0.132	−0.124	0.0481
	(0.105)	(0.114)	(0.112)	(0.0861)	(0.165)	(0.134)	(0.177)	(0.173)
ΔNEER$_{t-1}^2$	−0.166	−0.151	−0.150	−0.155	−0.0542	−0.0125	0.0214	−0.0618
	(0.148)	(0.161)	(0.161)	(0.140)	(0.412)	(0.308)	(0.288)	(0.394)
ΔNEER$_{t-2}^2$	0.130	0.138	0.136	0.157*	0.268	0.187	0.163	0.269
	(0.0818)	(0.0815)	(0.0822)	(0.0790)	(0.223)	(0.162)	(0.209)	(0.245)
ΔNEER$_{t-3}^2$	−0.0572	−0.0558	−0.0574	−0.0101	0.0650	0.0811	0.0110	0.0994
	(0.0829)	(0.0796)	(0.0782)	(0.0885)	(0.223)	(0.215)	(0.228)	(0.242)
ΔNEER$_t^3$	0.392***	0.401***	0.410***	0.416***	−1.507	0.464	0.533	−1.634
	(0.120)	(0.109)	(0.108)	(0.125)	(0.900)	(1.317)	(1.703)	(0.936)
ΔNEER$_{t-1}^3$	−0.346	−0.329	−0.329	−0.327	2.798	3.432	3.197	3.098
	(0.214)	(0.234)	(0.234)	(0.207)	(2.633)	(2.143)	(2.173)	(2.890)
ΔNEER$_{t-2}^3$	0.0677	0.0889	0.0859	0.119	0.0145	0.984	−0.168	0.313
	(0.138)	(0.142)	(0.139)	(0.146)	(1.079)	(1.384)	(1.647)	(1.127)
ΔNEER$_{t-3}^3$	−0.0789	−0.0744	−0.0755	−0.0382	0.935	2.009	1.648	0.755
	(0.0884)	(0.0849)	(0.0838)	(0.0848)	(1.464)	(1.187)	(1.231)	(1.725)
Output Gap$_t$	−0.0118	0.0292	0.00954	0.0199	0.0296*	0.0538***	0.0456**	0.0269
	(0.0403)	(0.0384)	(0.0429)	(0.0241)	(0.0150)	(0.00756)	(0.0166)	(0.0153)
D_t*Inflation$_{t-1}$	−0.0213	−0.0605	−0.0655	−0.150***	0.137	0.0901	0.0563	0.0891
	(0.0767)	(0.0596)	(0.0604)	(0.0421)	(0.124)	(0.0767)	(0.0859)	(0.121)
D_t*ΔNEER$_t$ = D_t*Contemporaneous ERPT	−0.0764**	−0.0753**	−0.0810***	−0.0675*	0.0182*	0.0214**	0.00691	0.0185*
	(0.0328)	(0.0294)	(0.0284)	(0.0328)	(0.00893)	(0.00845)	(0.00837)	(0.00973)

(*continued*)

Table A1. (Continued)

	Dependent Variable: Inflation$_t$							
	Emerging Market Economies				Advanced Economies			
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
D_t*ΔNEER$_{t-1}$	−0.0423*	−0.0464*	−0.0468*	−0.0457*	0.0113	0.0138	0.0119	0.0158
	(0.0245)	(0.0269)	(0.0270)	(0.0243)	(0.0136)	(0.0107)	(0.00840)	(0.0144)
D_t*ΔNEER$_{t-2}$	−0.0131	−0.00609	−0.00752	−0.00937	0.000589	0.00398	−0.00245	0.000285
	(0.0245)	(0.0181)	(0.0179)	(0.0236)	(0.00837)	(0.0117)	(0.0123)	(0.0102)
D_t*ΔNEER$_{t-3}$	−0.0141	−0.0225*	−0.0198*	−0.0250	0.0116	0.0181*	0.0245**	0.017
	(0.0120)	(0.0114)	(0.0106)	(0.0152)	(0.0112)	(0.00859)	(0.00883)	(0.0121)
D_t*ΔNEER^2_t	−0.0937	−0.150	−0.151	−0.221	0.158	0.358**	0.719***	0.136
	(0.277)	(0.270)	(0.263)	(0.243)	(0.191)	(0.124)	(0.159)	(0.187)
D_t*ΔNEER$^2_{t-1}$	−0.0348	0.00924	0.0124	−0.102	−0.0919	−0.0914	−0.298	−0.0930
	(0.184)	(0.184)	(0.175)	(0.165)	(0.380)	(0.338)	(0.295)	(0.369)
D_t*ΔNEER$^2_{t-2}$	0.101	0.0680	0.0775	0.0571	−0.335	−0.221	−0.211	−0.342
	(0.129)	(0.125)	(0.124)	(0.118)	(0.310)	(0.214)	(0.274)	(0.326)
D_t*ΔNEER$^2_{t-3}$	−0.0877	−0.101	−0.135	−0.0481	−0.00153	−0.0135	0.0481	−0.0265
	(0.0987)	(0.0895)	(0.0938)	(0.0914)	(0.205)	(0.233)	(0.228)	(0.219)
D_t*ΔNEER^3_t	1.425*	1.291*	1.294*	0.953	1.309	−1.004	2.696	1.217
	(0.790)	(0.749)	(0.734)	(0.743)	(1.481)	(1.764)	(2.006)	(1.682)
D_t*ΔNEER$^3_{t-1}$	0.259	0.434*	0.501**	0.172	−4.788	−6.405*	−6.721*	−5.219
	(0.269)	(0.227)	(0.206)	(0.310)	(3.925)	(3.451)	(3.609)	(4.162)
D_t*ΔNEER$^3_{t-2}$	0.0956	0.0668	0.107	−0.0226	−0.273	−1.129	0.481	−0.236
	(0.337)	(0.305)	(0.296)	(0.330)	(1.732)	(2.003)	(2.434)	(1.691)
D_t*ΔNEER$^3_{t-3}$	−0.403*	−0.355	−0.462**	−0.197	−0.799	−1.922	−1.609	−0.624
	(0.213)	(0.222)	(0.210)	(0.146)	(1.413)	(1.112)	(1.253)	(1.663)
D_t*Output Gap$_t$	0.0417	−0.0183	−0.0239	0.0173	−0.0126	−0.0511	−0.0933**	−0.00577
	(0.0483)	(0.0450)	(0.0448)	(0.0343)	(0.0422)	(0.0344)	(0.0390)	(0.0411)
ΔOil Prices$_t$		0.00701***				0.0117***		
		(0.00221)				(0.00127)		
Global Output Gap$_t$			0.100**				0.0442*	
			(0.0380)				(0.0224)	
Inflation Expectations$^{t+1}_t$				0.151***				−0.0542
				(0.0407)				(0.133)
D_t*Inflation Expectations$^{t+1}_t$				0.163*				0.148
				(0.0803)				(0.0992)
Constant	0.0112**	0.00344***	0.00353***	−0.00186	0.00588***	0.00268***	0.00280***	0.00391**
	(0.00527)	(0.000698)	(0.000644)	(0.00621)	(0.000958)	(0.000487)	(0.000505)	(0.00143)

(*continued*)

Table A1. (Continued)

	Dependent Variable: Inflation$_t$							
	Emerging Market Economies				Advanced Economies			
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Yearly ERPT	0.231***	0.222***	0.0223***	0.230***	0.00592	−0.00646	−0.0127	0.00413
	(0.0785)	(0.0741)	(0.0740)	(0.0737)	(0.00736)	(0.00893)	(0.0137)	(0.0123)
Long-Run ERPT	0.712***	0.717***	0.719***	0.585***	0.00878	−0.00921	−0.0184	0.00627
	(0.150)	(0.140)	(0.141)	(0.136)	(0.0115)	(0.0121)	(0.0185)	(0.0192)
D_t*Yearly ERPT	−0.146**	−0.150**	−0.155**	−0.148**	0.0417*	0.0573**	0.0408	0.0453*
	(0.0670)	(0.0634)	(0.0627)	(0.0640)	(0.0194)	(0.0209)	(0.0228)	(0.0233)
D_t*Long-Run ERPT	−0.143**	−0.142**	−0.146**	−0.128**	0.0483*	0.0630**	0.0432	0.0498
	(0.0685)	(0.0601)	(0.0591)	(0.0580)	(0.0253)	(0.0246)	(0.0250)	(0.0284)
Contemporaneous ERPT + D_t*Contemporaneous ERPT	0.0434***	0.0404***	0.0359**	0.0362***	0.0229**	0.0204**	0.00311	0.0245**
	(0.0126)	(0.0110)	(0.0128)	(0.0111)	(0.00839)	(0.00667)	(0.00970)	(0.00796)
Yearly ERPT + D_t*Yearly ERPT	0.0856***	0.0713***	0.0676***	0.0825***	0.0476***	0.0509***	0.0281	0.0494***
	(0.0171)	(0.0183)	(0.0201)	(0.0170)	(0.0131)	(0.0132)	(0.0170)	(0.0137)
Long-Run ERPT + D_t*Long-Run ERPT	0.247***	0.193**	0.180**	0.152***	0.0886***	0.0833***	0.0446	0.0869***
	(0.0797)	(0.0689)	(0.0719)	(0.0274)	(0.0251)	(0.0181)	(0.0248)	(0.0231)
Observations	1,889	1,889	1,889	1,889	957	957	957	907
Number of Countries	22	22	22	22	11	11	11	11
Country Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	No	No	No	Yes	No	No	No
Sargan Test[a]	0.972	1	1	0.965	0.0752	0.695	0.604	0.0439
Hansen Test[a]	1	1	1	1	1	1	1	1
Serial Correlation Test[b]	0.435	0.477	0.488	0.353	0.0319	0.0811	0.196	0.0273

Notes: System GMM estimation using Arellano and Bover (1995) and Blundell and Bond (1998) dynamic panel estimator. Robust standard errors are in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

[a]Reports p-values for the null hypothesis that the instruments used are not correlated with the residuals.

[b]Reports p-values for the null hypothesis that the errors in the first-difference regression exhibit no second-order serial correlation.

Table A2. Can Lower Inflation Explain Lower Pass-Through in EMEs? (full results for table 2 in main text)

	Dependent Variable: Inflation$_t$							
	Emerging Market Economies				Advanced Economies			
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Inflation$_{t-1}$	0.534***	0.558***	0.549***	0.459***	0.359***	0.334***	0.310***	0.352***
	(0.0997)	(0.0971)	(0.0967)	(0.0825)	(0.0751)	(0.0687)	(0.0701)	(0.0619)
ΔNEER$_t$ = Contemporaneous ERPT	0.0655***	0.0581***	0.0524***	0.0607***	0.00476	0.00569	0.000809	0.00580
	(0.0179)	(0.0179)	(0.0185)	(0.0144)	(0.00510)	(0.00405)	(0.00677)	(0.00527)
ΔNEER$_{t-1}$	0.0299**	0.0266**	0.0277**	0.0247**	0.00753	0.00564	0.00252	0.00735
	(0.125)	(0.0110)	(0.0118)	(0.0108)	(0.00611)	(0.00533)	(0.00587)	(0.00597)
ΔNEER$_{t-2}$	−0.00242	−0.00432	−0.00354	0.00430	0.00637	0.0060**	0.000956	0.00782
	(0.0140)	(0.0112)	(0.0115)	(0.0161)	(0.00438)	(0.00242)	(0.00541)	(0.00566)
ΔNEER$_{t-3}$	0.0331**	0.0283**	0.0303**	0.0355**	2.82e-05	−0.000377	−0.00152	0.001000
	(0.0144)	(0.0130)	(0.0127)	(0.0130)	(0.00498)	(0.00377)	(0.00479)	(0.00485)
ΔNEER$_t^2$	0.0369	0.0302	0.0449	0.0842	0.0453	0.0757	0.272*	0.0440
	(0.0769)	(0.0759)	(0.0748)	(0.0913)	(0.0524)	(0.0580)	(0.123)	(0.0580)
ΔNEER$_{t-1}^2$	−0.145	−0.115	−0.116	−0.170	0.0287	0.0467	0.0867	0.0256
	(0.135)	(0.135)	(0.134)	(0.121)	(0.103)	(0.0680)	(0.0637)	(0.0946)
ΔNEER$_{t-2}^2$	0.0881	0.0943	0.0834	0.121	0.0405	0.0647	−0.0806	0.0365*
	(0.123)	(0.116)	(0.123)	(0.112)	(0.0234)	(0.0386)	(0.0556)	(0.0178)
ΔNEER$_{t-3}^2$	−0.0960	−0.101	−0.107	−0.0271	0.0452	0.0124	−0.0400	0.0530
	(0.0847)	(0.0867)	(0.0859)	(0.0872)	(0.0525)	(0.0334)	(0.0452)	(0.0552)
ΔNEER$_t^3$	0.314**	0.327***	0.352***	0.360**	−0.0394	0.0780	0.606	−0.114
	(0.124)	(0.110)	(0.114)	(0.155)	(0.276)	(0.234)	(0.381)	(0.341)
ΔNEER$_{t-1}^3$	−0.184	−0.149	−0.151	−0.202	0.101	0.0954	0.356	0.0715
	(0.165)	(0.165)	(0.164)	(0.148)	(0.281)	(0.252)	(0.339)	(0.206)
ΔNEER$_{t-2}^3$	0.0681	0.0834	0.0684	0.130	0.479	0.358	0.334	0.487
	(0.114)	(0.107)	(0.111)	(0.111)	(0.286)	(0.221)	(0.275)	(0.317)
ΔNEER$_{t-3}^3$	−0.137	−0.136	−0.147	−0.0487	0.491*	0.630**	0.582**	0.483
	(0.0882)	(0.0856)	(0.0871)	(0.0886)	(0.271)	(0.216)	(0.231)	(0.288)
Output Gap$_t$	−0.00691	0.0343	0.00424	0.0214	0.0349*	0.0463***	0.0119	0.0340*
	(0.0300)	(0.0317)	(0.0367)	(0.0174)	(0.0162)	(0.0129)	(0.0190)	(0.0159)
Inflation$_{t-4}$*ΔNEER$_t$ = Inflation$_{t-4}$*Contemp. ERPT	0.921	0.936	0.973	0.775	1.582	0.979	−0.278	1.668
	(0.614)	(0.602)	(0.611)	(0.576)	(1.285)	(0.868)	(1.287)	(1.261)
Inflation$_{t-4}$*ΔNEER$_{t-1}$	0.609**	0.623**	0.632**	0.761***	0.346	0.572	0.0597	0.433
	(0.238)	(0.258)	(0.254)	(0.205)	(0.539)	(0.703)	(0.741)	(0.503)

(*continued*)

Table A2. (Continued)

	Dependent Variable: Inflation$_t$							
	Emerging Market Economies				Advanced Economies			
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Inflation$_{t-4}$*ΔNEER$_{t-2}$	0.324	0.328	0.340*	0.278	−1.390**	−0.889*	−0.214	−1.569**
	(0.193)	(0.194)	(0.197)	(0.180)	(0.530)	(0.443)	(0.756)	(0.496)
Inflation$_{t-4}$*ΔNEER$_{t-3}$	−0.112	−0.112	−0.116	−0.102	0.488	−0.0187	0.232	0.441
	(0.0895)	(0.0899)	(0.0911)	(0.0797)	(0.507)	(0.403)	(0.455)	(0.677)
ΔOil Prices$_t$		0.0119***				0.0122***		
		(0.00196)				(0.00144)		
Global Output Gap$_t$			0.137***				0.0742***	
			(0.0434)				(0.0188)	
Inflation Expectations$_t^{t+1}$				0.168***				0.0420
				(0.0467)				(0.106)
Constant	0.00858	0.0044***	0.0046***	0.00434	−0.0081**	0.0028***	0.0030***	0.00139
	(0.00718)	(0.00093)	(0.00092)	(0.00319)	(0.00277)	(0.00055)	(0.00057)	(0.00143)
Yearly ERPT	0.126***	0.109***	0.107***	0.125***	0.0187*	0.0166**	0.00277	0.0220*
	(0.0318)	(0.0265)	(0.0287)	(0.0289)	(0.00911)	(0.00710)	(0.0111)	(0.0101)
Long-Run ERPT	0.271***	0.246***	0.237***	0.231***	0.0292*	0.0249*	0.00402	0.0339*
	(0.0705)	(0.0707)	(0.0734)	(0.0446)	(0.0150)	(0.0120)	(0.0163)	(0.0170)
Inflation$_{t-4}$*Yearly ERPT	1.741*	1.775*	1.830*	1.712*	1.026	0.643	−0.200	0.972
	(0.921)	(0.938)	(0.943)	(0.845)	(1.333)	(1.034)	(1.070)	(1.401)
Inflation$_{t-4}$*Long-Run ERPT	3.737*	4.014*	4.059*	3.163*	1.601	0.966	−0.291	1.500
	(1.254)	(1.312)	(1.288)	(1.178)	(1.935)	(1.464)	(1.577)	(2.047)
Observations	1,977	1,977	1,977	1,977	1,001	1,001	1,001	951
Number of Countries	22	22	22	22	11	11	11	11
Country Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	No	No	No	Yes	No	No	No
Sargan Test[a]	0.860	0.997	0.990	0.941	0.211	0.922	0.608	0.204
Hansen Test[a]	1	1	1	1	1	1	1	1
Serial Correlation Test[b]	0.514	0.520	0.587	0.401	0.0847	0.0843	0.683	0.0872

Notes: System GMM estimation using Arellano and Bover (1995) and Blundell and Bond (1998) dynamic panel estimator. Robust standard errors are in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.
[a]Reports p-values for the null hypothesis that the instruments used are not correlated with the residuals.
[b]Reports p-values for the null hypothesis that the errors in the first-difference regression exhibit no second-order serial correlation.

Table A3. Lower Inflation/Lower Pass-Through: NEER vs. USD Exchange Rates (full results for table 3 in main text)

	Dependent Variable: Inflation_t			
	Emerging Market Economies		Advanced Economies	
	NEER	Bilateral USD Exchange Rate	NEER	Bilateral USD Exchange Rate
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**
Inflation_{t-1}	0.534***	0.500***	0.359***	0.375***
	(0.0997)	(0.0904)	(0.0751)	(0.0828)
$\Delta\text{Exchange Rate}_t$ = Contemporaneous ERPT	0.0655***	0.0410**	0.00476	0.00657
	(0.0179)	(0.0190)	(0.00510)	(0.00489)
$\Delta\text{Exchange Rate}_{t-1}$	0.0299**	0.0335**	0.00753	0.00798
	(0.0125)	(0.0140)	(0.00611)	(0.00506)
$\Delta\text{Exchange Rate}_{t-2}$	−0.00242	−0.0219	0.00637	0.00347
	(0.0140)	(0.0193)	(0.00438)	(0.00536)
$\Delta\text{Exchange Rate}_{t-3}$	0.0331**	0.0395**	2.82e-05	0.00254
	(0.0144)	(0.0149)	(0.00498)	(0.00535)
$\Delta\text{Exchange Rate}_t^2$	0.0369	0.201**	0.0453	0.0422
	(0.0769)	(0.0794)	(0.0524)	(0.0698)
$\Delta\text{Exchange Rate}_{t-1}^2$	−0.145	0.121	0.0287	−0.0204
	(0.135)	(0.0726)	(0.103)	(0.128)
$\Delta\text{Exchange Rate}_{t-2}^2$	0.0881	−0.0994	0.0405	−0.00978
	(0.123)	(0.143)	(0.0234)	(0.0518)
$\Delta\text{Exchange Rate}_{t-3}^2$	−0.0960	0.0683	0.0452	−0.0419
	(0.0847)	(0.0632)	(0.0525)	(0.0368)
$\Delta\text{Exchange Rate}_t^3$	0.314**	0.0107	−0.0394	−0.132
	(0.124)	(0.121)	(0.276)	(0.243)
$\Delta\text{Exchange Rate}_{t-1}^3$	−0.184	−0.0736	0.101	0.107
	(0.165)	(0.0732)	(0.281)	(0.512)
$\Delta\text{Exchange Rate}_{t-2}^3$	0.0681	0.151	0.479	0.104
	(0.114)	(0.110)	(0.286)	(0.206)
$\Delta\text{Exchange Rate}_{t-3}^3$	−0.137	−0.193***	0.491*	0.331
	(0.0882)	(0.0593)	(0.271)	(0.238)
Output Gap_t	−0.00691	−0.00630	0.0349*	0.0353*
	(0.0300)	(0.0259)	(0.0162)	(0.0167)
Inflation_{t-4}*$\Delta\text{Exchange Rate}_t$ = Inflation_{t-4}*Contemporaneous ERPT	0.921	1.201*	1.582	0.694
	(0.614)	(0.661)	(1.285)	(0.625)
Inflation_{t-4}*$\Delta\text{Exchange Rate}_{t-1}$	0.609**	0.501**	0.346	0.0335
	(0.238)	(0.180)	(0.539)	(0.673)
Inflation_{t-4}*$\Delta\text{Exchange Rate}_{t-2}$	0.324	0.439***	−1.390**	−0.528*
	(0.193)	(0.154)	(0.530)	(0.267)
Inflation_{t-4}*$\Delta\text{Exchange Rate}_{t-3}$	−0.112	−0.0803	0.488	0.444
	(0.0895)	(0.0826)	(0.507)	(0.431)
Constant	0.00858	0.0134*	−0.0081**	0.000605
	(0.00718)	(0.00666)	(0.00277)	(0.000799)
Yearly ERPT	0.126***	0.0922***	0.0187*	0.0206**
	(0.0318)	(0.0209)	(0.00911)	(0.00653)
Long-Run ERPT	0.271***	0.184***	0.0292*	0.0329**
	(0.0705)	(0.0508)	(0.0150)	(0.0112)
Inflation_{t-4}*Yearly ERPT	1.741*	2.061**	1.026	0.644
	(0.921)	(0.870)	(1.333)	(1.122)
Inflation_{t-4}*Long-Run ERPT	3.737*	4.123**	1.601	1.030
	(1.254)	(1.077)	(1.935)	(1.677)

(*continued*)

Table A3. (Continued)

	Dependent Variable: Inflation$_t$			
	Emerging Market Economies		Advanced Economies	
	NEER	Bilateral USD Exchange Rate	NEER	Bilateral USD Exchange Rate
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**
Observations	1,977	1,977	1,001	910
Number of Countries	22	22	11	10
Country Fixed Effect	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes
Sargan Test[a]	0.860	0.636	0.211	0.182
Hansen Test[a]	1	1	1	1
Serial Correlation Test[b]	0.514	0.528	0.0847	0.0721

Notes: System GMM estimation using Arellano and Bover (1995) and Blundell and Bond (1998) dynamic panel estimator. Robust standard errors are in parentheses. ***p $<$ 0.01, **p $<$ 0.05, *p $<$ 0.1.

[a]Reports p-values for the null hypothesis that the instruments used are not correlated with the residuals.

[b]Reports p-values for the null hypothesis that the errors in the first-difference regression exhibit no second-order serial correlation.

Table A4. Lower Inflation/Lower Pass-Through: Different Methodologies (full results for table 4 in main text)

	Dependent Variable: Inflation$_t$					
	Emerging Market Economies			Advanced Economies		
	System GMM	Difference GMM	Within-Group Estimator	System GMM	Difference GMM	Within-Group Estimator
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Inflation$_{t-1}$	0.534***	0.463***	0.465***	0.359***	0.166***	0.166***
	(0.0997)	(0.102)	(0.102)	(0.0751)	(0.0464)	(0.0462)
ΔNEER$_t$=	0.0655***	0.0567***	0.0569***	0.00476	0.00340	0.00340
Contemporaneous ERPT	(0.0179)	(0.0170)	(0.0168)	(0.00510)	(0.00482)	(0.00480)
ΔNEER$_{t-1}$	0.0299**	0.0242**	0.0245**	0.00753	0.00930	0.00930
	(0.0125)	(0.0107)	(0.0106)	(0.00611)	(0.00585)	(0.00583)
ΔNEER$_{t-2}$	−0.00242	−0.00185	−0.00175	0.00637	0.0108**	0.0108**
	(0.0140)	(0.0135)	(0.0135)	(0.00438)	(0.0448)	(0.00446)
ΔNEER$_{t-3}$	0.0331**	0.0326**	0.0326**	2.82e-05	0.00485	0.00485
	(0.0144)	(0.0135)	(0.0135)	(0.00498)	(0.00313)	(0.00312)
ΔNEER^2_t	0.0369	0.0238	0.0257	0.0453	−0.00103	−0.00103
	(0.0769)	(0.0745)	(0.0764)	(0.0524)	(0.0723)	(0.0720)
ΔNEER$^2_{t-1}$	−0.145	−0.160	−0.158	0.0287	−0.0131	−0.0131
	(0.135)	(0.126)	(0.128)	(0.103)	(0.0639)	(0.0636)
ΔNEER$^2_{t-2}$	0.0881	0.0963	0.0970	0.0405	−0.00703	−0.00703
	(0.123)	(0.119)	(0.118)	(0.0234)	(0.0290)	(0.0289)
ΔNEER$^2_{t-3}$	−0.0960	−0.0767	−0.0750	0.0452	0.00108	0.00108
	(0.0847)	(0.0815)	(0.0805)	(0.0525)	(0.0353)	(0.0351)
ΔNEER^3_t	0.314**	0.312**	0.314**	−0.0394	−0.499*	−0.499
	(0.124)	(0.130)	(0.133)	(0.276)	(0.277)	(0.276)
ΔNEER$^3_{t-1}$	−0.184	−0.167	−0.167	0.101	−0.338	−0.338
	(0.165)	(0.152)	(0.154)	(0.281)	(0.250)	(0.249)
ΔNEER$^3_{t-2}$	0.0681	0.0963	0.0967	0.479	0.0913	0.0913
	(0.114)	(0.107)	(0.107)	(0.286)	(0.290)	(0.289)

(*continued*)

Table A4. (Continued)

	Dependent Variable: Inflation$_t$					
	Emerging Market Economies			Advanced Economies		
	System GMM	Difference GMM	Within-Group Estimator	System GMM	Difference GMM	Within-Group Estimator
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
$\Delta\text{NEER}^3_{t-3}$	−0.137	−0.116	−0.114	0.491*	0.216	0.216
	(0.0882)	(0.0809)	(0.0797)	(0.271)	(0.260)	(0.259)
Output Gap$_t$	−0.00691	−0.0115	−0.0111	0.0349*	0.0429*	0.0429*
	(0.0300)	(0.0298)	(0.0300)	(0.0162)	(0.0210)	(0.0209)
Inflation$_{t-4}$*ΔNEER$_t$ = Inflation$_{t-4}$*Contemp. ERPT	0.921	0.921	0.915	1.582	2.305*	2.305*
	(0.614)	(0.605)	(0.598)	(1.285)	(1.121)	(1.116)
Inflation$_{t-4}$*ΔNEER$_{t-1}$	0.609**	0.718***	0.711***	0.346	0.997	0.997
	(0.238)	(0.220)	(0.217)	(0.539)	(0.597)	(0.594)
Inflation$_{t-4}$*ΔNEER$_{t-2}$	0.324	0.333*	0.330*	−1.390**	−1.212	−1.212
	(0.193)	(0.183)	(0.181)	(0.530)	(0.769)	(0.766)
Inflation$_{t-4}$*ΔNEER$_{t-3}$	−0.112	−0.111	−0.111	0.488	0.125	0.125
	(0.0895)	(0.0874)	(0.0865)	(0.507)	(0.533)	(0.531)
Constant	0.00858		0.0155***	−0.00809**		0.00785***
	(0.00718)		(0.00499)	(0.00277)		(0.00108)
Yearly ERPT	0.126***	0.112***	0.112***	0.0187*	0.0283***	0.0283***
	(0.0318)	(0.0267)	(0.0265)	(0.00911)	(0.00530)	(0.00528)
Long-Run ERPT	0.271***	0.208***	0.210***	0.0292*	0.0340***	0.0340***
	(0.0705)	(0.0537)	(0.0529)	(0.0150)	(0.00708)	(0.00705)
Inflation$_{t-4}$*Yearly ERPT	1.741*	1.861**	1.845**	1.026	2.216*	2.216*
	(0.921)	(0.891)	(0.878)	(1.333)	(1.221)	(1.216)
Inflation$_{t-4}$*Long-Run ERPT	3.737*	3.465**	3.449**	1.601	2.656*	2.656*
	(1.254)	(1.071)	(1.057)	(1.935)	(1.380)	(1.374)

(*continued*)

Table A4. (Continued)

	Dependent Variable: Inflation$_t$					
	Emerging Market Economies			Advanced Economies		
	System GMM	Difference GMM	Within-Group Estimator	System GMM	Difference GMM	Within-Group Estimator
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Observations	1,977	1,955	1,977	1,001	990	1,001
Number of Countries	22	22	22	11	11	11
Country Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Sargan Test[a]	0.860	0.567		0.211	0.010	
Hansen Test[a]	1	1		1	1	
Serial Correlation Test[b]	0.514	0.551		0.0847	0.317	
Within R^2			0.813			0.465

Notes: Robust standard errors are in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.
[a]Reports p-values for the null hypothesis that the instruments used are not correlated with the residuals.
[b]Reports p-values for the null hypothesis that the errors in the first-difference regression exhibit no second-order serial correlation.

Table A5. Lower Inflation/Lower Pass-Through: Different Structure of GMM Instruments (system GMM, different lag structure of GMM-type instruments)

	Dependent Variable: Inflation_t			
	Emerging Market Economies		Advanced Economies	
	GMM Instruments: 2–8 Lags	GMM Instruments: 2–7 Lags	GMM Instruments: 2–6 Lags	GMM Instruments: 2–5 Lags
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**
Inflation_{t-1}	0.534***	0.534***	0.529***	0.526***
	(0.0997)	(0.0997)	(0.100)	(0.103)
ΔNEER_t = Contemporaneous ERPT	0.0655***	0.0655***	0.0678***	0.0692***
	(0.0179)	(0.0180)	(0.0175)	(0.0180)
ΔNEER_{t-1}	0.0299**	0.0299**	0.0295**	0.0281**
	(0.0125)	(0.0125)	(0.0127)	(0.0128)
ΔNEER_{t-2}	−0.00242	−0.00240	−0.00190	−0.00194
	(0.0140)	(0.0140)	(0.0139)	(0.0145)
ΔNEER_{t-3}	0.0331**	0.0331**	0.0332**	0.0332**
	(0.0144)	(0.0144)	(0.0146)	(0.0144)
ΔNEER_t^2	0.0369	0.0368	0.0409	0.0410
	(0.0769)	(0.0770)	(0.0822)	(0.0832)
$\Delta\text{NEER}_{t-1}^2$	−0.145	−0.145	−0.150	−0.158
	(0.135)	(0.135)	(0.139)	(0.140)
$\Delta\text{NEER}_{t-2}^2$	0.0881	0.0882	0.0891	0.0895
	(0.123)	(0.123)	(0.124)	(0.126)
$\Delta\text{NEER}_{t-3}^2$	−0.0960	−0.0960	−0.104	−0.106
	(0.0847)	(0.0847)	(0.0861)	(0.0894)
ΔNEER_t^3	0.314**	0.314**	0.319**	0.319**
	(0.124)	(0.124)	(0.130)	(0.130)
$\Delta\text{NEER}_{t-1}^3$	−0.184	−0.185	−0.189	−0.198
	(0.165)	(0.165)	(0.169)	(0.172)
$\Delta\text{NEER}_{t-2}^3$	0.0681	0.0681	0.0689	0.0692
	(0.114)	(0.114)	(0.115)	(0.118)
$\Delta\text{NEER}_{t-3}^3$	−0.137	−0.137	−0.147	−0.149
	(0.0882)	(0.0882)	(0.0879)	(0.0914)
Output Gap_t	−0.00691	−0.00690	−0.00759	−0.00903
	(0.0300)	(0.0301)	(0.0304)	(0.0316)
Inflation_{t-4}*ΔNEER_t = Inflation_{t-4}*Contemp. ERPT	0.921	0.921	0.910	0.901
	(0.614)	(0.614)	(0.615)	(0.624)
Inflation_{t-4}*ΔNEER_{t-1}	0.609**	0.609**	0.623**	0.635**
	(0.238)	(0.238)	(0.240)	(0.240)
Inflation_{t-4}*ΔNEER_{t-2}	0.324	0.323	0.326	0.328
	(0.193)	(0.193)	(0.193)	(0.196)
Inflation_{t-4}*ΔNEER_{t-3}	−0.112	−0.112	−0.111	−0.110
	(0.0895)	(0.0895)	(0.0896)	(0.0908)
Constant	0.00858	0.0625	0.0119**	0.0118**
	(0.00718)	(0.00364)	(0.00481)	(0.00482)
Yearly ERPT	0.126***	0.126***	0.128***	0.129***
	(0.0318)	(0.0318)	(0.0319)	(0.0335)
Long-Run ERPT	0.271***	0.271***	0.273***	0.271***
	(0.0705)	(0.0706)	(0.0692)	(0.0724)

(*continued*)

Table A5. (Continued)

	Dependent Variable: Inflation$_t$			
	Emerging Market Economies		Advanced Economies	
	GMM Instruments: 2–8 Lags	GMM Instruments: 2–7 Lags	GMM Instruments: 2–6 Lags	GMM Instruments: 2–5 Lags
Explanatory Variables	**(1)**	**(2)**	**(3)**	**(4)**
Inflation$_{t-4}$*Yearly ERPT	1.741*	1.741*	1.749*	1.754*
	(0.921)	(0.921)	(0.920)	(0.931)
Inflation$_{t-4}$*Long-Run ERPT	3.737*	3.737*	3.714*	3.703*
	(1.254)	(1.254)	(1.237)	(1.239)
Observations	1,977	1,977	1,977	1,977
Number of Countries	22	22	22	22
Country Fixed Effect	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes
Sargan Test[a]	0.860	0.853	0.0262	7.19e-08
Hansen Test[a]	1	1	1	1
Serial Correlation Test[b]	0.514	0.515	0.518	0.519

Notes: System GMM estimation using Arellano and Bover (1995) and Blundell and Bond (1998) dynamic panel estimator. Robust standard errors are in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

[a]Reports p-values for the null hypothesis that the instruments used are not correlated with the residuals.

[b]Reports p-values for the null hypothesis that the errors in the first-difference regression exhibit no second-order serial correlation.