Detailed Appendix [TO BE AVAILABLE ON-LINE] to accompany section 2(c) on Reaction function/ Foreign exchange market behavior of central bank of Turkey, of "Systematic Managed Floating," paper written for 4th Asian Monetary Policy Forum, 2017, May 26, MAS, Singapore

Jeffrey Frankel, Harvard University, May 3 + May 15, 2017

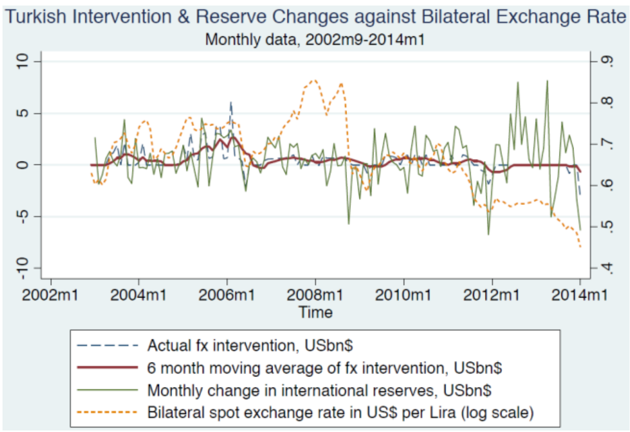

Fig. 5a With $ Exchange Rate

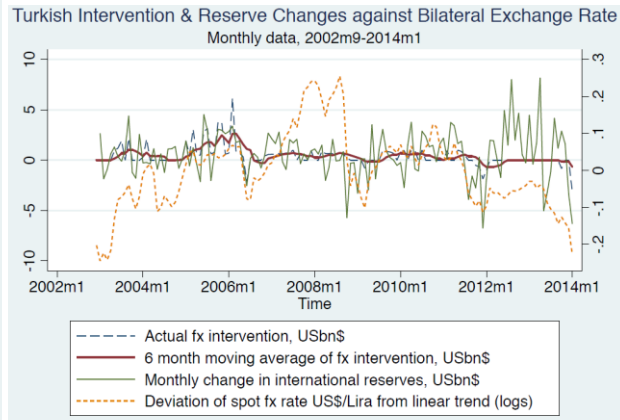

Fig. 5b: With $ Exchange rate minus trend

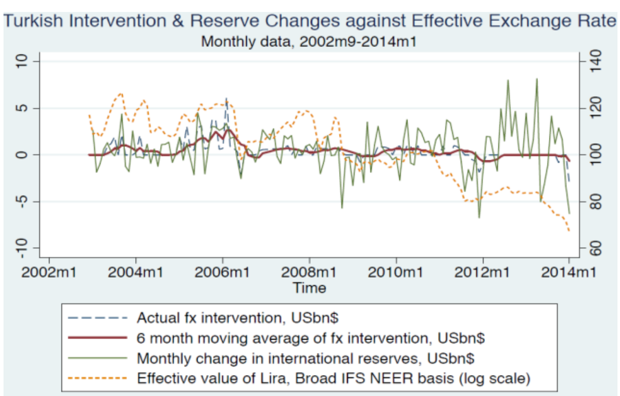

Fig.5c: with Nominal Effective Exchange Rate

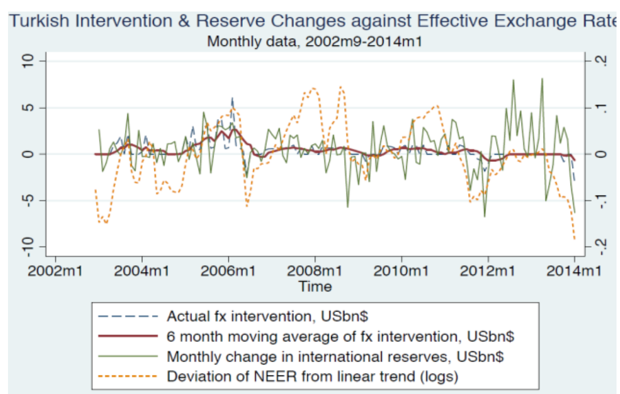

Fig. 5d: with Nominal EER minus trend

All the regressions for CBRT reaction function in foreign exchange

Regression for foreign exchange behavior of Central Bank of Republic of Turkey, measured either by data on intervention or by data on change in reserves.

(Reported statistics are t-values, using Newey-West se, lag 1)

1. $\bar{s}$ equals long run average of the log of the spot ER.

Dependent Variable	Intervention (monthly)	Interventn (6 mo. MA)	Interventn (monthly)	Interventn (6 mo.MA)
s - $\bar{s}$	4.92	5.88	3.05	3.65
s - s lag	1.59	-2.71	1.47	-2.69
Reserves to GDP			-0.39	0.16
constant	4.76	6.72	0.83	0.45

2. $\bar{s}$ equals long run average of the log of the spot ER.

Dependent Variable	Δ Reserves (monthly)	Δ Reserves (monthly)	Δ Reserves (3 mo. MA)
s - $\bar{s}$	0.4	1.19	1.48
s - s lag	4.48	4.5	1.8
Reserves to GDP		1.54	1.77
constant	3.15	-1.17	-1.32

3. $\bar{s}$ is a 5 year moving average of s.

Dependent Variable	Intervention (monthly)	Interventn (monthly)	Interventn (3 mo, MA)	Interventn (3 mo. MA)	Δ Reserves (monthly)
s - $\bar{s}$ (MA)	3.54	1.89	3.56	1.75	1.49
s - s lag	-0.62	-0.36	-2.54	-2.14	2.24
Reserves to GDP		-2.63		-3.44	
constant	4.42	3.15	5.11	4.13	3.34

4. s trend is fitted values from the regression of s on time.

Dependent Variable	Intervention (monthly)	Interventn (monthly)	Interventn (monthly)	Interventn (3 mo. MA)	Interventn (6 mo.MA)	ΔReserves (monthly)
s - s trend	3.63	2.7	2.65	4.2	4.22	1.82
s - s lag	2.26		1.63	-0.48	-1.67	4.52
Reserves to GDP		-2.86	-2.6			1.2
constant	4.3	3.38	3.13	5.1	5.78	-0.81

5. - $\bar{q}$ **bar is log(PPP/averagePPP)).**

Dependent Variable	Intervention (monthly)	Interventn (6 mo. MA)	Interventin (6 mo. MA)	Interventn (6 mo. MA)	Δ Reserves (monthly)
s - $\bar{q}$	1.75	2.31	2.15	4.25	0.05
s - s lag	1.66	-2.07		-1.82	4.68
Reserves to GDP	-1.55	-0.78	-0.78		0.66
constant	3.04	2.84	2.83	5.25	-0.32

6. Including LDV

Dependent Variable	Intervention (monthly)	Interventn (monthly)	Δ Reserves (monthly)	Interventn (monthly)	Interventn (monthly)
s - $\bar{s}$	3.84	5.14	0.39		
s - s lag	2.21	1.44	4.74	2.78	2.23
Intervention lag	2.14			2.98	
Delta reserves lag		2.61	1.28		2.15
s - s trend				2.9	3.63
constant	3.75	4.43	2.8	3.36	4

7. Break points in CBRT behaviour taking three dates as given.
Incl. dummies & interaction (with time variable) for the four periods.

Dependent Variable	Intervention (monthly)	Interventn (6 mo. MA)	Interventn (6 mo. MA)	ΔReserves (monthly)
s - s trend	3.58	4.49	3.51	1.46
s - s lag	1.11	-3.82	-3.77	4.45
time	-0.15	0.46	0.35	2.32
Interaction (2007m10-2011m7)	-1.63	-2.5	-2.54	-2.51
Interaction (2011m8-2013m6)	-1.15	-2.14	-2.18	-1.75
Interaction (2013m7-2014m1)	-1	-1.73	-1.71	-1.58
Reserves to GDP			0.22	
constant	-0.43	-0.09	-0.04	-2.21

8. Break points in CBRT behaviour taking three dates as given.

Incl. dummies & interaction (with s minus - $\bar{s}$ variable) for the four periods.

Dependent Variable	Intervention (6 mo. MA)	Δ Reserves (3 mo. MA)		Interventn (6 mo. MA)	Δ Reserves (3 mo.MA)
s - $\bar{s}$	4.44	2.16	**s - s trend**	4.31	0.76
s - s lag	-3.51	1.3	s - s lag	-3.04	1.48
time	0	1.9	time	-4.47	1.69
Interaction (2007m10-2011m7)	-3.81	-2.27	Intr 2007m10-2011m7	-3.39	-1.11
Interaction (2011m8-2013m6)	-2.54	-0.85	Intr 2011m8-2013m6	-0.93	1.27
Interaction (2013m7-2014m1)	-3.01	-0.67	Intr (2013m7-2014m1)	-2.04	1.15
constant	0.36	-1.74	constant	4.77	-1.47

9. Regressing only against s - s bar.

Dependent Variable	Intervention (monthly)	Intervention (6 mo. MA)	Δ Reserves (monthly)
s - $\bar{s}$	5.05	5.85	1.07
constant	4.62	6.6	2.69

10. Regressing only against s - s trend.

Dependent Variable	Interventio n (monthly)	Interventin (6 mo MA)	Δ Reserves (monthly)
s - s trend	3.72	4.31	1.86
constant	4.17	5.84	2.68

11. Regressing only against s - s lag.

Dependent Variable	Intervention (monthly)	Interventn (6 mo MA)	Δ Reserves (monthly)
s - s lag	2.52	-0.66	4.45
constant	4.14	5.45	3.23

12. Including the differential between inflation & inflation target (annual target).

Dependent Variable	Intervention (monthly)	Interventn (6 mo.MA)	Δ Reserves (monthly)
s - $\bar{s}$	4.89	5.97	0.47
s - s lag	1.58	-2.74	4.67
inflation-target	0.28	-0.66	-1.26
constant	4	5.74	3.42

13.

	Intervention (monthly)	Interventn (6 mo. MA)	Δ Reserves (monthly)
s - s trend	3.58	4.21	1.35
s - s lag	2.27	-1.65	4.59
inflation-target	0.22	-0.09	-1.34
constant	3.77	5.13	3.42