
```

        name: <unnamed>
        log: /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Tables/impac
> t_regs.smcl
    log type: smcl
    opened on: 17 Jul 2020, 16:37:11

1 .
2 . * LPs
3 . local j = 0

4 . foreach shock in mp1 { // path lsap {
    2.         local ++j
    3.         if `j' == 1 local shk "Target"
    4.         if `j' == 2 local shk "Path"
    5.         if `j' == 3 local shk "LSAP"
    6.
5 .         foreach group in 0 1 {
    7.             if `group' == 0 {
    8.                 local grp "AE"
    9.                 local vars sftnom sftsyn sftdyp sftdtp // nom syn
> dyp dtp
    10.             }
    11.             else {
    12.                 local grp "EM"
    13.                 local vars sftnom sftsyn sftrho sftphi // nom dyp
> dtp usyc syn rho phi
    14.             }
    15.
6 .         foreach t in 24 120 { // 3 6 12 24 60 120 {
    16.             foreach v in `vars' {
    17.
7 .                 // variables to store the betas, standard er
> rors and confidence intervals
8 .                 capture {
    18.                     gen b_`v'`t'm = .
    19.                     gen se_`v'`t'm = .
    20.                     gen l11_`v'`t'm = .
    21.                     gen ul1_`v'`t'm = .
    22.                     gen l12_`v'`t'm = .
    23.                     gen ul2_`v'`t'm = .
    24.                 }
    25.

```

```

9 .                                     // controls
10 .                                local ctrl`v'`t'm l(1/`maxlag').d`v'`t'm l(1
    > /`maxlag').fx
    26.
11 .                                forvalues i = 0/`horizon' {
    27.                                    // response variables
12 .                                    capture gen `v'`t'm`i' = (f`i'.`v'`t
    > 'm - l.`v'`t'm)
    28.
13 .                                    // conditions
14 .                                    local condition em == `group' & date
    > < td(1jan2009) // !inlist(cty,"AUD","NZD") // & region == 3
    29.
15 . //                                // test for cross-sectional independ
    > ence
16 . //                                if inlist(`i',0,30,60,90) {
17 . //                                    quiet xtreg `v'`t'm`i' `shoc
    > k' `ctrl`v'`t'm' if `condition', fe // exclude meeting after 9/11
18 . //                                    xtcsd, pesaran abs
19 . //                                }
20 .
21 .                                    // one regression for each horizon
22 .                                    if `i' == 0 xtreg `v'`t'm`i' `shock'
    > `ctrl`v'`t'm' if `condition', fe level(95) cluster($id)
    > // report on-impact effect
    30. //                                if `i' == 0 xtscd `v'`t'm`i' `sho
    > ck' `ctrl`v'`t'm' if `condition', fe level(95) lag(4)
23 .                                quiet xtreg `v'`t'm`i' `shock' `ctrl
    > `v'`t'm' if `condition', fe level(95) cluster($id)
    31. //                                quiet xtscd `v'`t'm`i' `shock' `c
    > trl`v'`t'm' if `condition', fe level(95) lag(4)
24 .                                capture {
    32.                                    replace b_`v'`t'm = _b[`shock']
    > if _n == `i'+1
    33.                                    replace se_`v'`t'm = _se[`shock']
    > if _n == `i'+1
    34.

```

```

25 .                                // confidence intervals
26 .                                matrix R = r(table)
    35.                                replace l11_`v'`t'm = el(matrix(R
> ),rownumb(matrix(R),"l1"),colnumb(matrix(R,"`shock'"))) if _n == `i'+1
    36.                                replace ul1_`v'`t'm = el(matrix(R
> ),rownumb(matrix(R),"ul"),colnumb(matrix(R,"`shock'"))) if _n == `i'+1
    37.                                quiet xtreg, level(90) // to get
> 90% CI
    38. //                                quiet xtsc, level(90) // to get
> 90% CI
27 .                                matrix R = r(table)
    39.                                replace l12_`v'`t'm = el(matrix(R
> ),rownumb(matrix(R),"l1"),colnumb(matrix(R,"`shock'"))) if _n == `i'+1
    40.                                replace ul2_`v'`t'm = el(matrix(R
> ),rownumb(matrix(R),"ul"),colnumb(matrix(R,"`shock'"))) if _n == `i'+1
    41.
28 .                                drop `v'`t'm`i'
    42.                                }
    43.                                } // horizon
    44.
29 .                                // graph
30 .                                twoway (rarea l11_`v'`t'm ul1_`v'`t'm days,
> fcolor(gs12) lcolor(white) lpattern(solid)) ///
>                                (rarea l12_`v'`t'm ul2_`v'`t
> 'm days, fcolor(gs10) lcolor(white) lpattern(solid)) ///
>                                (line b_`v'`t'm days, lcolor
> (black) lpattern(solid) lwidth(thick)) ///
>                                (line zero days, lcolor(blac
> k)), ///
>                                title(`: variable label `v'`t'm', color(blac
> k) size(medium)) ///
>                                ytitle("Basis Points", size(medsmall)) xtitl
> e("Days", size(medsmall)) ylabel(-1(1)5) xlabel(10(20)90) ///
>                                graphregion(color(white)) plotregion(color(w
> hite)) ///
>                                legend(off) name(`v'`t'm, replace)
    45.                                graph export $pathfigs/`shk'/'grp'/'v'`t'
> m.eps, replace
    46.

```

```

31 .                                local graphs`shock'`grp'`t' `graphs`shock'`g
> rp'`t' `v'`t'm
47.                                drop *_`v'`t'm /
> / b_, se_ and confidence intervals
48.                                } // yield component
49.
32 .                                graph combine `graphs`shock'`grp'`t', rows(1) ycommon ///
>                                title("`shock' `grp' `t'm")
50.                                graph export $pathfigs/`shk'/'`grp'/'`shk'`grp'`v'`t'm.eps,
> replace
51.
33 .                                graph drop _all
52.                                } // tenor
53.                                } // AE or EM
54. } // shock

```

```

Fixed-effects (within) regression      Number of obs   =      810
Group variable: imf                   Number of groups =      10

```

```

R-sq:                                Obs per group:
    within = 0.0407                      min =      81
    between = 0.0025                     avg =     81.0
    overall = 0.0375                     max =      81

```

```

                                F(3,9) =      13.05
corr(u_i, Xb) = -0.1455          Prob > F =      0.0013

```

(Std. Err. adjusted for 10 clusters in imf)

sftnom24m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	.1148425	.0216733	5.30	0.000	.0658142	.1638709
dsftnom24m						
L1.	.0410837	.0678379	0.61	0.560	-.1123764	.1945438
fx						
L1.	.0106568	.0194754	0.55	0.598	-.0333997	.0547133
_cons	-.0067186	.293945	-0.02	0.982	-.6716684	.6582311
sigma_u	.69574122					
sigma_e	5.7966308					
rho	.01420144	(fraction of variance due to u_i)				

```

(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> AE/sftnom24m.eps written in EPS format)

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```

Fixed-effects (within) regression               Number of obs   =       697
Group variable: imf                           Number of groups =       10

R-sq:                                         Obs per group:
    within = 0.3643                          min =           64
    between = 0.0031                         avg =          69.7
    overall = 0.0696                         max =           78

                                         F(3,9)          =      213.98
corr(u_i, Xb) = -0.9009                     Prob > F         =      0.0000

```

(Std. Err. adjusted for 10 clusters in imf)

sftsyn24m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	.2809375	.0651439	4.31	0.002	.1335718	.4283032
dsftsyn24m L1.	-.5340182	.0279682	-19.09	0.000	-.5972867	-.4707497
fx L1.	-.4985939	.2324642	-2.14	0.061	-1.024465	.0272767
_cons	6.814141	3.572499	1.91	0.089	-1.267414	14.8957
sigma_u	17.64633					
sigma_e	11.265295					
rho	.7104565	(fraction of variance due to u_i)				

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> AE/sftsyn24m.eps written in EPS format)

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Fixed-effects (within) regression               Number of obs   =      810
Group variable: imf                           Number of groups =      10

R-sq:                                         Obs per group:
    within = 0.0543                          min =           81
    between = 0.0016                         avg =          81.0
    overall = 0.0534                         max =           81

                                         F(3,9)          =       12.87
corr(u_i, Xb) = -0.0083                     Prob > F         =      0.0013

```

(Std. Err. adjusted for 10 clusters in imf)

sftdyp24m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	.1148065	.0217571	5.28	0.001	.0655884	.1640246
dsftdyp24m						
l1.	.0226838	.0510169	0.44	0.667	-.0927244	.138092
fx						
l1.	-.0019609	.0139378	-0.14	0.891	-.0334904	.0295685
_cons	.0725476	.2187184	0.33	0.748	-.4222277	.567323
sigma_u	.58151764					
sigma_e	4.8703296					
rho	.01405599	(fraction of variance due to u_i)				

```
(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> AE/sftdyp24m.eps written in EPS format)
```

Fixed-effects (within) regression	Number of obs	=	810
Group variable: imf	Number of groups	=	10

R-sq:		Obs per group:	
within	= 0.0306	min	= 81
between	= 0.0143	avg	= 81.0
overall	= 0.0086	max	= 81

	F(3,9)	=	18.67
corr(u_i, Xb)	= -0.7825	Prob > F	= 0.0003

(Std. Err. adjusted for 10 clusters in imf)

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
sftdtp24m0						
mp1	.0144774	.0107911	1.34	0.213	-.0099338	.0388885
dsftdtp24m						
l1.	.1618365	.0480874	3.37	0.008	.0530552	.2706177
fx						
l1.	.0144126	.0029152	4.94	0.001	.007818	.0210072
_cons	-.0791933	.0556681	-1.42	0.189	-.2051232	.0467365
sigma u	.54327004					

		F(3,9)	=	353.09
corr(u_i, Xb)	= -0.9053	Prob > F	=	0.0000

(Std. Err. adjusted for **10** clusters in imf)

sftsynl20m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	-.0365592	.0526696	-0.69	0.505	-.1557061	.0825878
dsftsynl20m L1.	-.5606964	.0284983	-19.67	0.000	-.625164	-.4962288
fx L1.	-.3579335	.1415728	-2.53	0.032	-.6781934	-.0376735
_cons	5.464863	2.165874	2.52	0.033	.5653168	10.36441
sigma_u	12.602734					
sigma_e	9.0010301					
rho	.66220802	(fraction of variance due to u_i)				

```
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> AE/sftsyn120m.eps written in EPS format)
```

```
Fixed-effects (within) regression      Number of obs   =      810
Group variable: imf                  Number of groups =       10
```

R-sq:		Obs per group:	
within	= 0.0339	min	= 81
between	= 0.0005	avg	= 81.0
overall	= 0.0290	max	= 81

corr(u i, Xb)	= -0.2121	F(3,9)	= 8.45
		Prob > F	= 0.0055

(Std. Err. adjusted for **10** clusters in imf)

sftdyp120m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	.0606285	.0130759	4.64	0.001	.0310488	.0902082
dsftdyp120m						
L1.	-.014661	.0628773	-0.23	0.821	-.1568993	.1275773
fx						
L1.	-.0068481	.0082133	-0.83	0.426	-.0254278	.0117317


```
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> AE/sftdyp120m.eps written in EPS format)
```

R-sq:		Obs per group:	
within	= 0.0071	min	= 81
between	= 0.2245	avg	= 81.0
overall	= 0.0033	max	= 81

corr(u i, Xb)	= -0.9103	F(3,9)	= 11.15
		Prob > F	= 0.0022

sftdtp120m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	-.0247252	.0215658	-1.15	0.281	-.0735105	.0240601
dsftdtp120m L1.	.0560089	.0540242	1.04	0.327	-.0662025	.1782202
fx L1.	-.03054	.0073812	-4.14	0.003	-.0472374	-.0138426
_cons	.5731295	.1098336	5.22	0.001	.3246686	.8215905
sigma_u	.9651776					
sigma_e	4.1712923					
rho	.05081857	(fraction of variance due to u_i)				

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> AE/TargetAE120m.eps written in EPS format)
```



(Std. Err. adjusted for 15 clusters in imf)

sftsyn24m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mpl	1.230876	.3421882	3.60	0.003	.4969548	1.964796
dsftsyn24m						
l1.	.357212	.370617	0.96	0.351	-.4376823	1.152106
fx						
l1.	-.0639433	.003209	-19.93	0.000	-.0708259	-.0570607
_cons	73.97973	2.409425	30.70	0.000	68.81203	79.14743
sigma_u	149.73827					
sigma_e	35.680824					
rho	.94626972	(fraction of variance due to u_i)				

```
(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> EM/sftsyn24m.eps written in EPS format)
```

```
Fixed-effects (within) regression      Number of obs   =      651
Group variable: imf                   Number of groups =       15
```

R-sq:		Obs per group:	
within	= 0.2652	min	= 21
between	= 0.3982	avg	= 43.4
overall	= 0.0338	max	= 81

	F(3,14)	=	504.94
corr(u_i, Xb)	= -0.9873	Prob > F	= 0.0000

(Std. Err. adjusted for **15** clusters in imf)

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
sftrho24m0						
mp1	.6577411	.2137765	3.08	0.008	.1992361	1.116246
dsftrho24m						
l1.	.5222819	.3787037	1.38	0.189	-.2899567	1.334521
fx						
l1.	-.0453469	.0019131	-23.70	0.000	-.0494501	-.0412436
_cons	49.66749	1.606465	30.92	0.000	46.22197	53.11302
sigma u	106.16226					

corr(u_i, Xb)	=	-0.9716	F(3,13)	=	32.47
			Prob > F	=	0.0000

(Std. Err. adjusted for 14 clusters in imf)

sftnoml20m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mpl	.1409825	.0708785	1.99	0.068	-.0121412	.2941062
dsftnoml20m						
L1.	-.2313243	.1369189	-1.69	0.115	-.5271197	.0644711
fx						
L1.	.0115774	.0015569	7.44	0.000	.0082139	.0149408
_cons	-11.27829	1.200349	-9.40	0.000	-13.87149	-8.685096
sigma_u	27.642366					
sigma_e	18.1356					
rho	.69908521	(fraction of variance due to u_i)				

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(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> EM/sftnoml20m.eps written in EPS format)
```

Fixed-effects (within) regression	Number of obs	=	620
Group variable: imf	Number of groups	=	15

R-sq:		Obs per group:	
within	= 0.2738	min	= 19
between	= 0.2396	avg	= 41.3
overall	= 0.0231	max	= 78

corr(u_i, Xb)	= -0.9810	F(3,14)	= 162.19
		Prob > F	= 0.0000

(Std. Err. adjusted for **15** clusters in imf)

sftsynl20m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mpl	.1561459	.1629985	0.96	0.354	-.193451	.5057428
dsftsynl20m						
L1.	-.4717318	.2001509	-2.36	0.034	-.9010127	-.0424509
fx						
L1.	-.0271416	.0035225	-7.71	0.000	-.0346968	-.0195865

<code>_cons</code>	30.59351	4.49187	6.81	0.000	20.95941	40.22762
<code>sigma_u</code>	63.982883					
<code>sigma_e</code>	24.108479					
<code>rho</code>	.87567587	(fraction of variance due to <code>u_i</code>)				

```
Fixed-effects (within) regression      Number of obs   =      651
Group variable: imf                   Number of groups =       15
```

corr(u i, Xb)	=	-0.9737	F(3,14)	=	153.35
			Prob > F	=	0.0000

sftrhol20m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	.3481562	.0911972	3.82	0.002	.1525577	.5437546
dsftrhol20m L1.	-.342368	.2009502	-1.70	0.111	-.7733634	.0886274
fx L1.	-.017805	.0027887	-6.38	0.000	-.0237863	-.0118238
_cons	19.86558	3.291293	6.04	0.000	12.80646	26.9247
sigma_u	41.890404					
sigma_e	23.037939					
rho	.76778193	(fraction of variance due to u_i)				

```
Fixed-effects (within) regression      Number of obs   =      544
Group variable: imf                   Number of groups =      14
```

R-sq:		Obs per group:	
within	= 0.2983	min	= 18
between	= 0.4218	avg	= 38.9
overall	= 0.0367	max	= 64

corr(u i, Xb)	= -0.9890	F(3,13)	= 909.91
		Prob > F	= 0.0000

(Std. Err. adjusted for 14 clusters in imf)

sftphil20m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	-.0159006	.1261384	-0.13	0.902	-.288406	.2566048
dsftphil20m L1.	-.3165751	.0892938	-3.55	0.004	-.5094826	-.1236676
fx L1.	.038415	.0032603	11.78	0.000	.0313716	.0454585
_cons	-44.34388	3.633084	-12.21	0.000	-52.19268	-36.49508
sigma_u	92.976114					
sigma_e	23.313139					
rho	.94084688	(fraction of variance due to u_i)				

```
(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> EM/sftphil20m.eps written in EPS format)
(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> EM/TargetEM120m.eps written in EPS format)
```

```
34 .
35 . log close
      name: <unnamed>
      log: /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Tables/impac
> t_regs.smcl
      log type: smcl
      closed on: 17 Jul 2020, 16:56:28
```