
```

        name: <unnamed>
        log: /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Tables/impac
> t_regs.smcl
    log type: smcl
    opened on: 16 Jul 2020, 15:54:35

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 nom // dyp dtp
   10.             }
   11.             else {
   12.                 local grp "EM"
   13.                 local vars nom // dyp dtp phicns // usyc syn usyc
> rho phi
   14.             }
   15.
6 .             foreach t in 24 120 { // 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 ll1_`v'`t'm = .
   21.                         gen ul1_`v'`t'm = .
   22.                         gen ll2_`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(17sep2001) // & 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.

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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 xtscc, 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   =      1,620
Group variable: imf                   Number of groups =       10

```

```

R-sq:                                Obs per group:
    within = 0.0360                      min =      162
    between = 0.0810                     avg =     162.0
    overall = 0.0332                     max =      162

```

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                                F(3,9) =      12.99
corr(u_i, Xb) = -0.2523          Prob > F =      0.0013

```

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

nom24m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	.1327461	.0237721	5.58	0.000	.0789699	.1865223
dnom24m						
L1.	-.014274	.0532617	-0.27	0.795	-.1347604	.1062124
fx						
L1.	.012997	.0035739	3.64	0.005	.0049122	.0210818
_cons	-.4462629	.0402733	-11.08	0.000	-.5373675	-.3551582
sigma_u	.49099224					
sigma_e	4.8910133					
rho	.00997693	(fraction of variance due to u_i)				

```

(note: file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/T
> arget/AE/nom24m.eps not found)
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> arget/AE/TargetAE24m.eps not found)
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> AE/TargetAE24m.eps written in EPS format)

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Fixed-effects (within) regression      Number of obs   =      1,620
Group variable: imf                   Number of groups =       10

```

```

R-sq:                                Obs per group:
    within = 0.0081                    min =      162
    between = 0.1344                   avg =     162.0
    overall = 0.0084                   max =      162

```

```

                                F(3,9)      =      4.47
corr(u_i, Xb) = 0.0212           Prob > F      =     0.0349

```

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

nom120m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	.0321152	.019815	1.62	0.140	-.0127095	.07694
dnom120m L1.	-.1060021	.0429891	-2.47	0.036	-.2032501	-.0087541
fx L1.	.0010265	.0040411	0.25	0.805	-.008115	.010168
_cons	-.3600318	.044057	-8.17	0.000	-.4596956	-.260368
sigma_u	.31601234					
sigma_e	5.6626867					
rho	.00310465	(fraction of variance due to u_i)				

```

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> AE/nom120m.eps written in EPS format)
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> AE/TargetAE120m.eps written in EPS format)

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Fixed-effects (within) regression      Number of obs   =      1,997
Group variable: imf                   Number of groups =       15

```

```

R-sq:                                Obs per group:
    within = 0.0142                    min =       69
    between = 0.2869                   avg =     133.1
    overall = 0.0132                   max =      162

```

		F(3,14)	=	69.46
corr(u_i, Xb)	= -0.6870	Prob > F	=	0.0000

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

nom24m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mp1	.1604417	.0402129	3.99	0.001	.0741936	.2466897
dnom24m L1.	-.097411	.1627771	-0.60	0.559	-.4465332	.2517113
fx L1.	-.0008349	.0000938	-8.90	0.000	-.0010359	-.0006338
_cons	.4309796	.0731784	5.89	0.000	.2740275	.5879316
sigma_u	1.9457594					
sigma_e	11.85006					
rho	.02625326	(fraction of variance due to u_i)				

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> arget/EM/nom24m.eps not found)
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> EM/nom24m.eps written in EPS format)
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(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> EM/TargetEM24m.eps written in EPS format)
```

```
Fixed-effects (within) regression      Number of obs   =      1,997
Group variable: imf                   Number of groups =       15
```

R-sq:		Obs per group:	
within	= 0.0462	min	= 69
between	= 0.2449	avg	= 133.1
overall	= 0.0412	max	= 162

		F(3,14)	=	3.04
corr(u i, Xb)	= -0.1468	Prob > F	=	0.0641

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

noml20m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
mpl	.1317189	.0637456	2.07	0.058	-.0050018	.2684396
dnoml20m l1.	-.1909708	.1374183	-1.39	0.186	-.4857038	.1037621
fx l1.	-.0002284	.0000958	-2.39	0.032	-.0004338	-.0000231
_cons	-.447046	.111474	-4.01	0.001	-.6861339	-.2079581
sigma_u	1.707649					
sigma_e	14.601305					
rho	.01349317	(fraction of variance due to u_i)				

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(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> EM/nom120m.eps written in EPS format)
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(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> EM/TargetEM120m.eps written in EPS format)
```

Fixed-effects (within) regression	Number of obs	=	1,620
Group variable: imf	Number of groups	=	10

R-sq:		Obs per group:	
within	= 0.1116	min	= 162
between	= 0.0831	avg	= 162.0
overall	= 0.1014	max	= 162

		F(3,9)	=	18.49
corr(u i, Xb)	= -0.3006	Prob > F	=	0.0003

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

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
nom24m0						
path	.1879981	.0291288	6.45	0.000	.1221042	.253892
dnom24m						
L1.	.0281821	.0467045	0.60	0.561	-.0774708	.133835
fx						
L1.	.0205878	.0074947	2.75	0.023	.0036335	.0375421
cons	-.6584491	.0976435	-6.74	0.000	-.879334	-.4375642

sigma_u	.67849017	
sigma_e	4.6951949	
rho	.02045522	(fraction of variance due to u_i)

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> ath/AE/nom24m.eps not found)
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> /nom24m.eps written in EPS format)
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> ath/AE/PathAE24m.eps not found)
(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Path/AE
> /PathAE24m.eps written in EPS format)
```

```
Fixed-effects (within) regression      Number of obs      =      1,620
Group variable: imf                   Number of groups   =       10
```

```
R-sq:                                Obs per group:
    within = 0.1568                      min =      162
    between = 0.0065                     avg =     162.0
    overall = 0.1478                     max =      162
```

```
corr(u_i, Xb) = -0.2104                  F(3,9)              =      22.04
                                          Prob > F            =      0.0002
```

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

nom120m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
path	.2486129	.0337492	7.37	0.000	.172267	.3249589
dnom120m L1.	-.0948009	.0393718	-2.41	0.039	-.1838661	-.0057358
fx L1.	.0179327	.0105136	1.71	0.122	-.0058506	.041716
_cons	-.5913354	.1399933	-4.22	0.002	-.9080223	-.2746485
sigma_u	.65596533					
sigma_e	5.2211599					
rho	.01553911					(fraction of variance due to u_i)

```
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> /nom120m.eps written in EPS format)
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> /PathAE120m.eps written in EPS format)
```



```

Fixed-effects (within) regression               Number of obs   =       1,997
Group variable: imf                          Number of groups =        15

R-sq:                                           Obs per group:
    within = 0.0147                             min =           69
    between = 0.2884                            avg =       133.1
    overall = 0.0143                            max =       162

                                           F(3,14)         =       62.66
corr(u_i, Xb) = -0.6283                       Prob > F         =       0.0000

```

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

nom24m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
path	.1241122	.0398714	3.11	0.008	.0385967	.2096278
dnom24m L1.	-.097045	.1629892	-0.60	0.561	-.4466221	.252532
fx L1.	-.0007595	.0000875	-8.68	0.000	-.0009472	-.0005718
_cons	.2156484	.0573025	3.76	0.002	.0927467	.3385501
sigma_u	1.775627					
sigma_e	11.847295					
rho	.02196937	(fraction of variance due to u_i)				

```

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> ath/EM/nom24m.eps not found)
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> /nom24m.eps written in EPS format)
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> /PathEM24m.eps written in EPS format)

```

```

Fixed-effects (within) regression               Number of obs   =       1,997
Group variable: imf                          Number of groups =        15

R-sq:                                           Obs per group:
    within = 0.0621                             min =           69
    between = 0.0935                            avg =       133.1
    overall = 0.0606                            max =       162

                                           F(3,14)         =       4.88
corr(u_i, Xb) = -0.0341                       Prob > F         =       0.0158

```

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

noml20m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
path	.2443336	.0808856	3.02	0.009	.0708513	.4178158
dnoml20m L1.	-.1874564	.1366383	-1.37	0.192	-.4805164	.1056036
fx L1.	-.0000849	.0000889	-0.95	0.356	-.0002756	.0001059
_cons	-.7023139	.0974449	-7.21	0.000	-.9113124	-.4933153
sigma_u	1.398438					
sigma_e	14.478994					
rho	.00924224	(fraction of variance due to u_i)				

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> /PathEM120m.eps written in EPS format)
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Fixed-effects (within) regression	Number of obs	=	1,620
Group variable: imf	Number of groups	=	10

R-sq:		Obs per group:	
within	= 0.0001	min	= 162
between	= 0.0824	avg	= 162.0
overall	= 0.0005	max	= 162

		F(3,9)	=	3.35
corr(u i, Xb)	= -0.2571	Prob > F	=	0.0695

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

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
nom24m0						
lsap	-.0059055	.0489765	-0.12	0.907	-.116698	.1048869
dnom24m						
l1.	.0037292	.0467308	0.08	0.938	-.1019831	.1094416
fx						
l1.	.0065524	.0029533	2.22	0.054	-.0001284	.0132332
cons	-.4980103	.03048	-16.34	0.000	-.5669609	-.4290597


```

Fixed-effects (within) regression               Number of obs   =       1,997
Group variable: imf                           Number of groups =        15

R-sq:                                         Obs per group:
    within = 0.0084                          min =           69
    between = 0.2853                         avg =       133.1
    overall = 0.0091                         max =       162

                                         F(3,14)         =       47.09
corr(u_i, Xb) = -0.7111                     Prob > F         =       0.0000

```

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

nom24m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lsap	.1208735	.0382815	3.16	0.007	.0387679	.2029791
dnom24m L1.	-.0965736	.1624956	-0.59	0.562	-.4450919	.2519447
fx L1.	-.0007974	.0000968	-8.24	0.000	-.001005	-.0005898
_cons	.2566735	.071735	3.58	0.003	.1028172	.4105299
sigma_u	1.8737004					
sigma_e	11.884798					
rho	.02425237	(fraction of variance due to u_i)				

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> SAP/EM/nom24m.eps not found)
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> /LSAPEM24m.eps written in EPS format)

```

```

Fixed-effects (within) regression               Number of obs   =       1,997
Group variable: imf                           Number of groups =        15

R-sq:                                         Obs per group:
    within = 0.0465                          min =           69
    between = 0.1819                         avg =       133.1
    overall = 0.0430                         max =       162

                                         F(3,14)         =       2.94
corr(u_i, Xb) = -0.1047                     Prob > F         =       0.0699

```

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

nom120m0	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lsap	.2315316	.113114	2.05	0.060	-.0110737	.4741369
dnom120m						
L1.	-.1917808	.1382484	-1.39	0.187	-.4882942	.1047326
fx						
L1.	-.0001655	.0000905	-1.83	0.089	-.0003597	.0000287
_cons	-.6179318	.0995626	-6.21	0.000	-.8314724	-.4043913
sigma_u	1.5757619					
sigma_e	14.599054					
rho	.01151599	(fraction of variance due to u_i)				

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> /nom120m.eps written in EPS format)

(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/LSAP/EM
> /LSAPEM120m.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: 16 Jul 2020, 16:08:44