```
      name:  <unnamed>
       log:  /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Tables/impac
> t_regs.smcl
  log type:  smcl
 opened on:  16 Jul 2020, 22:21:54

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 1 { // 0 1 {
    7.                 if `group' == 0 {
    8.                         local grp "AE"
    9.                         local vars nom sftsyn // dyp dtp
   10.                 }
   11.                 else {
   12.                         local grp "EM"
   13.                         local vars nom sftsyn sftrho sftphi // dyp dtp us
> yc 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 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' // !in
   > list(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($id)
   > // report on-impact effect
    30. //                                 if `i' == 0 xtscc `v'`t'm`i' `sho
   > ck' `ctrl`v'`t'm' if `condition', fe level(95) lag(4)
23 .                                    quiet xtreg `v'`t'm`i' `shock' `ctrl
   > `v'`t'm' if `condition', fe level(95) cluster($id)
    31. //                                 quiet xtscc `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 ll1_`v'`t'm = el(matrix(R
   > ),rownumb(matrix(R),"ll"),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 ll2_`v'`t'm = el(matrix(R
   > ),rownumb(matrix(R),"ll"),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 ll1_`v'`t'm ul1_`v'`t'm days,
   >  fcolor(gs12) lcolor(white) lpattern(solid)) ///
   >                                                 (rarea ll2_`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     =      1,997
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)
------------------------------------------------------------------------------
             |               Robust
     nom24m0 |      Coef.   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)
------------------------------------------------------------------------------

(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
   > EM/nom24m.eps written in EPS format)
```

```
Fixed-effects (within) regression               Number of obs      =       1,835
Group variable: imf                             Number of groups   =          15

R-sq:                                           Obs per group:
     within  = 0.0573                                         min =         100
     between = 0.4499                                         avg =       122.3
     overall = 0.0415                                         max =         159

                                                F(3,14)            =       85.61
corr(u_i, Xb)  = -0.7627                        Prob > F           =      0.0000

                                         (Std. Err. adjusted for 15 clusters in imf)
------------------------------------------------------------------------------
             |               Robust
  sftsyn24m0 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         mp1 |      1.2814   .4299006     2.98   0.010     .3593553    2.203446
             |
  dsftsyn24m |
         L1. |    .2468658   .3445629     0.72   0.485    -.4921481    .9858797
             |
          fx |
         L1. |   -.0031815   .0004718    -6.74   0.000    -.0041934   -.0021697
             |
       _cons |    2.166713   .3251273     6.66   0.000     1.469384    2.864042
-------------+----------------------------------------------------------------
     sigma_u |   6.9634219
     sigma_e |   26.678742
         rho |   .06378112   (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      =       1,866
Group variable: imf                             Number of groups   =          15

R-sq:                                           Obs per group:
     within  = 0.0985                                         min =         102
     between = 0.5013                                         avg =       124.4
     overall = 0.0848                                         max =         162

                                                F(3,14)            =       68.90
corr(u_i, Xb)  = -0.5945                        Prob > F           =      0.0000
```

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

sftrho24m0	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
mp1	**.6497111**	**.2405186**	**2.70**	**0.017**	**.1338501**	**1.165572**
dsftrho24m L1.	**.3994344**	**.3451131**	**1.16**	**0.266**	**-.3407597**	**1.139628**
fx L1.	**-.0024331**	**.0004469**	**-5.44**	**0.000**	**-.0033917**	**-.0014745**
_cons	**.8676659**	**.3255265**	**2.67**	**0.018**	**.1694809**	**1.565851**
sigma_u	**5.0161465**					
sigma_e	**24.219294**					
rho	**.04113168**	(fraction of variance due to u_i)				

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> arget/EM/sftrho24m.eps not found)
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> EM/sftrho24m.eps written in EPS format)

Fixed-effects (within) regression — Number of obs = **1,747**
Group variable: **imf** — Number of groups = **15**

R-sq:
within = **0.0142**
between = **0.3065**
overall = **0.0100**

Obs per group:
min = **69**
avg = **116.5**
max = **145**

F(**3,14**) = **40.49**
corr(u_i, Xb) = **-0.8796** — Prob > F = **0.0000**

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

sftphi24m0	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
mp1	**-.641959**	**.3241948**	**-1.98**	**0.068**	**-1.337288**	**.0533696**
dsftphi24m L1.	**.0441379**	**.2326267**	**0.19**	**0.852**	**-.4547967**	**.5430724**
fx L1.	**.0026578**	**.0003024**	**8.79**	**0.000**	**.0020092**	**.0033065**
_cons	**-1.945058**	**.305213**	**-6.37**	**0.000**	**-2.599675**	**-1.290441**

sigma_u	**6.2741944**
sigma_e	**23.604872**
rho	**.06598802** (fraction of variance due to u_i)

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> arget/EM/sftphi24m.eps not found)
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> EM/sftphi24m.eps written in EPS format)
(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)

nom120m0	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
mp1	**.1317189**	**.0637456**	**2.07**	**0.058**	**-.0050018**	**.2684396**
dnom120m 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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> EM/nom120m.eps written in EPS format)

Fixed-effects (within) regression — Number of obs = **1,835**
Group variable: **imf** — Number of groups = **15**

```
R-sq:                                                 Obs per group:
     within  = 0.1814                                               min =       100
     between = 0.4284                                               avg =     122.3
     overall = 0.1489                                               max =       159

                                                      F(3,14)           =     59.50
corr(u_i, Xb)  = -0.5241                              Prob > F          =    0.0000

                                        (Std. Err. adjusted for 15 clusters in imf)
------------------------------------------------------------------------------
             |               Robust
sftsyn120m0 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         mp1 |   .2055997   .1278822     1.61   0.130    -.0686802    .4798797
             |
 dsftsyn120m |
         L1. |  -.5046431   .1397231    -3.61   0.003    -.8043195   -.2049668
             |
          fx |
         L1. |  -.0022422   .0005896    -3.80   0.002    -.0035067   -.0009776
             |
       _cons |   1.621001   .8048753     2.01   0.064    -.1052851    3.347287
-------------+----------------------------------------------------------------
     sigma_u |  5.1650794
     sigma_e |  21.288134
         rho |  .05559517   (fraction of variance due to u_i)
------------------------------------------------------------------------------
(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> EM/sftsyn120m.eps written in EPS format)

Fixed-effects (within) regression                     Number of obs     =     1,866
Group variable: imf                                   Number of groups  =        15

R-sq:                                                 Obs per group:
     within  = 0.1137                                               min =       102
     between = 0.4012                                               avg =     124.4
     overall = 0.0932                                               max =       162

                                                      F(3,14)           =     57.67
corr(u_i, Xb)  = -0.5647                              Prob > F          =    0.0000
```

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

sftrho120m0	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
mp1	**.3704312**	**.0720013**	**5.14**	**0.000**	**.2160038**	**.5248585**
dsftrho120m L1.	**-.3343026**	**.1561611**	**-2.14**	**0.050**	**-.6692349**	**.0006297**
fx L1.	**-.0018049**	**.0004628**	**-3.90**	**0.002**	**-.0027975**	**-.0008123**
_cons	**2.018096**	**.5111399**	**3.95**	**0.001**	**.9218099**	**3.114382**
sigma_u	**4.0290616**					
sigma_e	**19.302676**					
rho	**.04174955**	(fraction of variance due to u_i)				

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> arget/EM/sftrho120m.eps not found)
(file /Users/Pavel/Documents/GitHub/Book/Ch_Synthetic/Docs/Figures/LPs/Target/
> EM/sftrho120m.eps written in EPS format)

Fixed-effects (within) regression — Number of obs = **1,747**
Group variable: **imf** — Number of groups = **15**

R-sq: — Obs per group:
within = **0.1736** — min = **69**
between = **0.5188** — avg = **116.5**
overall = **0.1665** — max = **145**

F(**3,14**) = **193.63**
corr(u_i, Xb) = **-0.3846** — Prob > F = **0.0000**

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

sftphi120m0	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
mp1	**-.0788942**	**.1284737**	**-0.61**	**0.549**	**-.3544428**	**.1966544**
dsftphi120m L1.	**-.3955605**	**.0739204**	**-5.35**	**0.000**	**-.5541039**	**-.2370171**
fx L1.	**.0016773**	**.0005879**	**2.85**	**0.013**	**.0004164**	**.0029383**
_cons	**-1.894785**	**.679047**	**-2.79**	**0.014**	**-3.351196**	**-.4383742**

```
-------------+----------------------------------------------------------------
     sigma_u |  3.2927286
     sigma_e |  20.487795
         rho |  .02517944   (fraction of variance due to u_i)
------------------------------------------------------------------------------

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> arget/EM/sftphi120m.eps not found)
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> EM/sftphi120m.eps written in EPS format)
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> 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:  16 Jul 2020, 22:30:34
-------------------------------------------------------------------------------
```