

STATA APPENDIX

In this appendix we present LLT's STATA implementation.

Table 2 regressions

The equation in their text is, p. 1527, is

$$\ln(q_{ht}) = \alpha + \beta \ln(P_{ht}) + \beta_y \ln y_{ht} + \gamma X_{ht} + \delta T_{ht} + \theta_h + \varphi_t + \epsilon_{ht}. \quad (1)$$

with T_{ht} takes value 1 as of September 2013.

1.- In the STATA code T_{ht} is denoted as T2.

Despite that T2 is what they formally defined as the post-treatment variable in the text, p. 1526, it is only used to obtain the descriptive results presented in Table 1

That is, they build Table 1 with T2 but in the regressions LLT use a different post-treatment dummy variable -these issues are not detailed in the text nor in the appendix.

- Definition and used of T2 in Table 1

*TABLE 1

univar T2 c_ele g_ele p_kwh...BISEMANA if T2!=.

Below we tabulated T2 and, as observed, takes value 1 as of September 2013.

tabulate month T2 if year == 2013

month	T2		Total
	0	1	
1	1,038	0	1,038
2	1,058	0	1,058
3	1,019	0	1,019
4	738	0	738
5	538	0	538
6	526	0	526

7		477	0		477
8		406	0		406
9		0	751		751
10		0	571		571
11		0	517		517
12		0	546		546
Total		5,800	2,385		8,185

2.- As discussed in the online appendix, the specification of the STATA regressions is given by

$$\ln(q_{ht}) = \alpha + \beta \ln(P_{ht}) + \delta \times T_{ht}^1 + \lambda \times (m - m_r) \times T_{ht}^2 + \gamma X_{ht} + \theta_h + \varphi_t + \epsilon_{ht}. \quad (\text{STATA})$$

where T_{ht}^1 which takes value 1 as of October 2023 and T_{ht}^2 takes value 1 as of September 2013.

1.- The post-treatment dummy variable T_{ht}^1 is denoted in the STATA code as TT202

We tabulate this variable to see it takes value 1 as of October 2013.

tab month TT202 if year == 2013

	TT202		
month	0	1	Total
1	1,038	0	1,038
2	1,058	0	1,058
3	1,019	0	1,019
4	738	0	738
5	538	0	538
6	526	0	526
7	477	0	477
8	406	0	406
9	751	0	751
10	0	571	571
11	0	517	517

12		0	546		546
Total		6,551	1,634		8,185

2.- The dynamic treatment effect, $(m - m_r) \times T_{ht}^2$, is called **dist** in their STATA code. The **dist** variable is a linear trend and takes value 1 as of September 2013, i.e.,

tab month dist if year == 2013

month	dist					Total
	0	1	2	3	4	
1	1,038	0	0	0	0	1,038
2	1,058	0	0	0	0	1,058
3	1,019	0	0	0	0	1,019
4	738	0	0	0	0	738
5	538	0	0	0	0	538
6	526	0	0	0	0	526
7	477	0	0	0	0	477
8	406	0	0	0	0	406
9	0	751	0	0	0	751
10	0	0	571	0	0	571
11	0	0	0	517	0	517
12	0	0	0	0	546	546
Total	5,800	751	571	517	546	8,185

Despite including the dynamic treatment effect in their regression, LLT ignore this variable when recovering the ATE. Moreover, the dynamic treatment effect is neither defined not commented in the text.

3.- Regression specifications:

```
*****
* Table 2
*****
* column 1, OLS
reg lnc_ele TT202 lnPRE lny ///
c.lny#c.lny dist i.TAMAMU i.CCAA CAPROV NMIEMB NHABIT SUPERF i.ESTUDRED ///
i.SITUACTHOG_j mayores alqui urban edif25 i.year i.trim, vce (cluster id)

* column 2 IV
```

```

ivreg2 lnc_ele TT202 (lnPRE =lnPRE_aguav_ lnPRE_papas_ lnPRE_gascar_ ) lny ///
lny2 dist itam2 itam3 itam4 itam5 iccaa2-iccaa19 CAPROV ///
NMIEMB NHABIT SUPERF iestud2 iestud3 iestud4 ///
isitu2 isitu3 mayores alqui urban edif25 iyear7 iyear8 iyear9 ///
if sample1==1, first cluster(id) liml nocons
\\

* column 3, fixed effects NO IV
xtreg lnc_ele TT202 lnPRE lny ///
      c.lny#c.lny dist i.TAMAMU i.CCAA CAPROV NMIEMB NHABIT SUPERF ///
      i.ESTUDRED i.SITUACTHOG-j mayores alqui urban edif25 i.year i.trim ///
      if sample==1, fe vce (cluster id)

```

Below the w represent deviations with respect to the mean.

```

* column 4, fixed effects IV
ivreg2 wlnnc_ele wTT202 (wlnPRE = wlnPRE_aguav_ wlnPRE_papas_ wlnPRE_gascar_ ) ///
      wlny wlny2 wdist wNMIEMB wiestud1 wiestud2 wiestud3 wisitu2 wisitu3 ///
      wmayores walqui wedif25 wiyear7 wiyear8 wiyear9, r first liml nocons

```

Placebo test regression specification.

The dummy variable in their placebo OLS regression, denoted as **TT176** is defined in October 2012, not in September 2012, as suggested in the text, i.e. *our falsification test involves the introduction of a placebo reform in the same period, but one year earlier. This means that treated and control households are again allocated in relation to the week they were interviewed, but this time as if the reform had occurred one year earlier, in August 2012.* However, recall that they do not mention the VAT increase in September 2012.

On page 1536, LLT claims to have conducted a placebo test, which is presented in columns 1 and 2 of Table 8. As observed below, STATA code shows they actually implemented an OLS on a dummy variable for the year 2012. That is, they did not implement a diff-in-diff.

Moreover, the variables included are not the same as in their main empirical equation, e.g, neither the variables recovering weather nor `dist` are included.

The placebo STATA regression specification is given as

*TABLE 8

```
*****
gen TT176=0 if year>2009 & time<199
replace TT176=1 if time>176 & dup==2 & time<199
replace TT176=. if time>176 & dup==1 & time<199
*column 1
reg lnc_ele TT176 lnPRE lny c.lny#c.lny ///
i.TAMAMU i.CCAA CAPROV NMIEMB NHABIT SUPERF i.ESTUDRED ///
i.SITUACTHOG-j mayores alqui urban edif25 if year==2012, vce (cluster BIS)
*column 2
reg lng_ele TT176 lnPRE lny c.lny#c.lny ///
i.TAMAMU i.CCAA CAPROV NMIEMB NHABIT SUPERF i.ESTUDRED ///
i.SITUACTHOG-j mayores alqui urban edif25 if year==2012, vce (cluster BIS)

. tab month TT176 if year == 2012
```

month	TT176		Total
	0	1	
1	533	0	533
2	517	0	517
3	474	0	474
4	721	0	721
5	531	0	531
6	515	0	515
7	480	0	480
8	407	0	407
9	1,452	0	1,452
10	0	532	532
11	0	519	519

12		0	527		527
Total		5,630	1,578		7,208