(R)
Statistics/Data analysis

User: Mark R. Beissinger
Project: The Revolutionary City

```
. * ================================================================================
      name:  <unnamed>
       log:  C:\Users\mbeissin\Desktop\Stata files for book\Robustnesstestfiles\Logfiles\robustnesstestschapter9.log
  log type:  text
 opened on:  26 Jan 2022, 15:02:56

. * ================================================================================
. * ROBUSTNESS CHECKS FOR STATISTICAL RESULTS APPEARING IN CHAPTER 9
. * STATA
. * Robustness checks for results reported in Chapter 9
. * Author: Mark R. Beissinger
. * Date:  January 2022
. * Princeton, NJ
. * ================================================================================
. * BEFORE RUNNING, YOU MUST SET THE DEFAULT PATH FOR WHERE THE DATA
. *   FILES RESIDE
. * ================================================================================
. * Before running, download the following packages for STATA:
. *       collin from https://stats.oarc.ucla.edu/stata/ado/analysis/
. *       eststo and esttab from http://www.stata-journal.com/software/sj14-2
. * ================================================================================
. * The following datafiles are used for this chapter:
. *   revolutionaryeps.dta--Cross-sectional dataset of revolutionary episodes
. *   matcheddiffindifflong.dta--Panel dataset of successful revolutions and
. *                matched cases for pre-revolutionary and post-revolutionary periods
. *   simplediffindifflong.dta--Panel dataset of successful and failed urban
. *               civic and social revolutionary episodes for pre-revolutionary
. *               and post-revolutionary periods
. *   fullsamplediffindifflong.dta--Panel dataset of all revolutionary episodes
. *               for pre-revolutonary and post-revolutionary periods
. * ================================================================================
. * The following files are produced by these robustness tests:
. *       --Robustnesstestfiles\Logfiles\robustnesstestschapter9.log
. *       --84 graphs of effects
. *               The graphs have been attached to the end of the pdf output file
. *                 produced for these robustness tests.
. * ================================================================================
.
. * ********************************************************************************
. * PLEASE READ--IMPORTANT EXPLANATION OF WHAT FOLLOWS
. * ********************************************************************************
. *
. * In Chapter 9 of The Revolutionary City, the diff-and-diff analyses were
. * not used as a way of estimating treatment effects. The reasons for this
. * are detailed in Appendix 4G (pp. 488-492), which provides a discussion of
. * the ways in which revolutions violate the various assumptions of the
. * diff-in-diff model necessary for estimating treatment effects. Instead,
. * the diff-and-diff setup in Chapter 9 was used for purposes of controlled
. * comparison--for describing the evolution of the particular variables examined,
. * to identify trends before and after revolution, and to compare these
. * between different types of revolutions, between succcessful and failed
. * revolutionary episodes, and between countries experiencing revolutionary
. * contention and matched counterparts that did not.
. *
. * Indeed, many of the comparisons presented in Chapter 9 do not involve "treatment"
. * at all, but rather compare patterns of development after different types of
. * revolutions, or patterns of development in societies experiencing successful
. * revolutions with those that experienced failed ones.  There was no "treatment"
. * effect that could be estimated in these cases, and the purpose instead was to
. * describe the different trajectories of the variables of interest under these
. * constrasting conditions. The closest this chapter comes to potentially
. * identifying a treatment effect for revolution was in its matched case
. * comparisons that compared societies experiencing revolutionary contention with
. * societies that were similar in many respects but did not experience revolutionary
. * contention over the period. There are considerable issues involved
. * in such comparisons, though they are about the best that can be done to estimate
. * the counterfactual of what might have happened had revolution never occurred.
. * However, I did not estimate a "treatment" effect in these cases, preferring
. * instead to use the setup to compare rather than identify causaion. The
. * quasi-"treatment" variable (revny) used in these specifications actually included
. * both treatment and pre-treatment years rather than differentiating between
. * "treatment" and pre-"treatment" years, as a normal diff-in-diff setup would do.
. * The year prior to revolutionary onset was used as the base for the comparison.
. * The setup also included a unit-time control.
. *
. * In these robustness tests, I instead explored the extent to which a "treatment"
. * effect (ATET) could be estimated for all of the matched comparisons conducted
. * in the chapter, as well as the extent to which some of the key statistical
. * assumptions for estimating a treatment effect for revolution held (Please note
. * that, as detailed in The Revolutionary City, there are other statistical
. * assumptions necessary for identifying treatment effects that are not tested
. * here and that may not hold true for many of the revolutionary episodes in the
. * sample). In particular, I explore: 1) if an ATET were estimated for the
. * relationship, would it be statistically significant; 2) whether parallel
. * trends assumptions for the pre-revolutionary period hold; 3) whether
. * treatment effects are observed in anticipation of actual treatment (i.e.,
. * Granger causation, in the sense that the outcome variable may be causing
. * treatment); 4) how stable any treatment effects are over the post-revolutionary
. * period (through the introduction leads and lags); 5) whether the introduction
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. * of additional alternative treatment variables for times outside of revolutionary
. * contention (i.e., immediately before and immediaately after revolution) affects
. * the relationship (what some might think of as a kind of statistical placebo
. * test, though this in no way should be considered a true placebo test, which is
. * not possible in events like revolutions); and 6) whether the introduction
. * of autoregressive lags for the dependent variable alters any relationships
. * (given that the trajectory of many of the dependent variables is autoregressive).
. *
. * As will be seen, only in a relatively few cases does revolution as a "treatment"
. * fully pass these particular statistical hurdles to causal identification.
. * There are particular issues with social revolutions, as the small size of the
. * samples for which data on the dependent variables were available severely challenges
. * identification of "treatment" effects for social revolutions at conventional
. * levels of statistical significance (The number of social revolutions in the
. * sample ranges approximately from a low of 5 to a high of 11. One should
. * therefore be cautious about drawing conclusions concerning the absence of any
. * effect from social revolution in these cases.  The data are just too
. * limited in most cases. Moreover, some causal processes are simply too slow-
. * moving to be captured in a statistically significant manner in these tests.
. * Thus, infant mortality and under-five child mortality change relatively slowly
. * over time; they may be affected by revolution (and there is some evidence that
. * they are), but the statistical significance of these effects may not be
. * evident for many years after revolution.  Also, I do not test for the influence
. * of other control variables that might affect relationships, but it should be
. * noted that this kind of specification error is likely widespread in the tests
. * presented below.
. *
. * For these tests, I use the xtdidregress command and post-estimation tests
. * that were newly available in Stata 17. These greatly simplify the processs of
. * of post-estimation tests. But for that reason, in contrast to all other do-files,
. * this do-file requires Stata 17 to run the tests properly.
. *
. * In these robustness tests I also present graphs of average trends for all
. * variables discussed in Chapter 9 that were not presented visually. The
. * regression results themselves can be found in the Stata do-file for the chapter.
. * Confidence intervals are not provided in these graphs to enhance the
. * visibility of trends. All graphs produced were labeled and attached to the end
. * of the pdf robustness test output files available for the chapter.
. *
. * ****************************************************************************
.
.
. * ****************************************************************************
. * INITIALIZING PROGRAMS USED IN THE ROBUSTNESS TESTS
. *       Programs initialized are called in the analyses below
. * ****************************************************************************
.
. quietly{

.
.
.
. * ****************************
. * INITATING ROBUSTNESS TESTS
. * ****************************
.
. * ++++++++++++++++++++++++++++++++++++
. * POST-REVOLUTIONARY REGIME SURVIVAL
. * ++++++++++++++++++++++++++++++++++++
. clear

. use revolutionaryeps.dta, clear

. * Set survival data
. * Establish data as survival data with reglastyr variable--previously carried out
. quietly: stset reglastyr, failure(died==1) origin (time endyear)

. * Bootstrap tests
. bootstrap, reps(1000) seed(1234) nodots: stcox  leftist  vanguard  civilwar lndeaths lnmonths  c.vdcsrepressavg1to5##c.vdcsrepressavg1
> to5 if ongoing==0 & success==1

Cox regression with Breslow method for ties

Bootstrap results

No. of subjects =   107                                 Number of obs =    107
No. of failures =    70
Time at risk    = 1,820
                                                        Wald chi2(7)  =  25.50
Log likelihood = -258.30656                             Prob > chi2   = 0.0006

------------------------------------------------------------------------------------------------------
                                     |   Observed   Bootstrap                         Normal-based
                                  _t | haz. ratio   std. err.      z    P>|z|     [95% conf. interval]
-------------------------------------+----------------------------------------------------------------
                             leftist |   .4991076   .2201541    -1.58   0.115     .2102486    1.184828
                            vanguard |   .6600975   1.306162    -0.21   0.834     .0136553    31.90918
                            civilwar |   1.181024   .8021738     0.24   0.806     .3119657    4.471063
                            lndeaths |   1.054684   .0578188     0.97   0.331      .947237    1.174319
                           lnmonthsdur |    .581198   .1151422    -2.74   0.006     .3941768    .8569533
                 vdcsrepressavg1to5 |   2.732493   1.092446     2.51   0.012     1.248102    5.982299
                                     |
c.vdcsrepressavg1to5#c.vdcsrepressavg1to5 |   .8507068   .0933012    -1.47   0.140     .6861585    1.054716
------------------------------------------------------------------------------------------------------
```

```
150 . bootstrap, reps(1000) seed(1234) nodots: stcox  leftist  vanguard  civilwar lndeaths lnmonths  vdcsrepressavg1to5 if ongoing==0 & succ
    > ess==1

    Cox regression with Breslow method for ties

    Bootstrap results

    No. of subjects =   107                                 Number of obs =    107
    No. of failures =    70
    Time at risk    = 1,820
                                                            Wald chi2(6)  =  23.30
    Log likelihood = -259.76712                             Prob > chi2   = 0.0007

    ------------------------------------------------------------------------------
                      |   Observed   Bootstrap                         Normal-based
                   _t | haz. ratio   std. err.      z    P>|z|     [95% conf. interval]
    -------------------+----------------------------------------------------------
              leftist |   .5698696   .2627684    -1.22   0.223     .2308257    1.406912
            vanguard |   .5038079   .9243287    -0.37   0.709     .0138222    18.36332
            civilwar |   1.070394   .7544563     0.10   0.923     .2688953     4.26093
            lndeaths |   1.058382    .057896     1.04   0.300     .9507792    1.178163
          lnmonthsdur |   .5683254   .1143768    -2.81   0.005     .3830812    .8431471
    vdcsrepressavg1to5 |    1.52176   .2186656     2.92   0.003     1.148246    2.016775
    ------------------------------------------------------------------------------

151 . *       RESULT: lnmonthsdur remains negative and significant at .05 level or better;
152 . *                       vdcsrepressavg1to5 is positive and significant at .05 level or better only in univariate form
153 . * Multicollinearity test
154 . collin leftist vanguard civilwar lndeaths lnmonths vdcsrepressavg1to5
    (obs=239)

      Collinearity Diagnostics

                           SQRT                  R-
      Variable      VIF     VIF    Tolerance    Squared
    ----------------------------------------------------
       leftist      1.67    1.29    0.5988      0.4012
      vanguard      1.60    1.27    0.6235      0.3765
      civilwar      3.68    1.92    0.2718      0.7282
      lndeaths      2.79    1.67    0.3579      0.6421
    lnmonthsdur      2.97    1.72    0.3373      0.6627
    vdcsrepressavg1to5      1.21    1.10    0.8296      0.1704
    ----------------------------------------------------
      Mean VIF      2.32

                            Cond
            Eigenval        Index
    ---------------------------------
        1     4.8284          1.0000
        2     1.0735          2.1208
        3     0.4701          3.2050
        4     0.3070          3.9658
        5     0.1801          5.1779
        6     0.0810          7.7210
        7     0.0600          8.9722
    ---------------------------------
     Condition Number         8.9722
     Eigenvalues & Cond Index computed from scaled raw sscp (w/ intercept)
     Det(correlation matrix)    0.0717

155 . * All tolerance values above .20, indicating that while multicollinearity is substantial,
156 . *       it is likely not debilitating
157 .
158 . * ====================================================================
159 . * STATE CAPACITY AFTER SUCCESSFUL SOCIAL AND URBAN CIVIC REVOLUTIONS
160 . * ====================================================================
161 .
162 . * ++++++++++++++++++++++++++++++++++++
163 . * V-DEM MEASURE OF TERRITORIAL CONTROL
164 . * ++++++++++++++++++++++++++++++++++++
165 . //  SUCCESSFUL SOCIAL VS. SUCCESSFUL URBAN CIVIC
166 . * Regression results were presented in Chapter 9 do-file
167 . * Graph of results produced here
168 . use simplediffindifflong.dta, clear

169 . global yvar = "vdsvstterr"

170 . quietly{

171 . global condvar = "leftist==1"

172 . quietly: chp9simpmultimp

173 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.leftist##ib(2).year if success==1, fe vce(robust)

174 . quietly: mimrgns, at(leftist=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

175 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
    > itle("% territory controlled") ylabel(80(5)100 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Urban civic" 2 "Social" )) not
    > e("Graph #1" , span) title("`titvar1'" "Avg marginal predictions for successful episodes") plot1opts(msymbol(Oh) msize(medlarge)) plot
    > 2opts(msymbol(O) msize(medlarge))

    Variables that uniquely identify margins: leftist year
```

```
176 . graph export Robustnesstestfiles\Logfiles\robch9graph1.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph1.pdf saved as PDF format

177 .
178 . * ++++++++++++++++++++++++++++++++++++++++++++++++
179 . * MILITARY EXPENDITURE IN THE WAKE OF REVOLUTION
180 . * ++++++++++++++++++++++++++++++++++++++++++++++++
181 . //  SUCCESSFUL SOCIAL VS. SUCCESSFUL URBAN CIVIC
182 . * Regression results were presented in Chapter 9 do-file
183 . * Graph of results produced here
184 . use simplediffindifflong.dta, clear

185 . global yvar = "milex"

186 . quietly{

187 . global condvar = "leftist==1"

188 . quietly: chp9simpmultimp

189 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.leftist##ib(2).year if success==1, fe vce(robust)

190 . quietly: mimrgns, at(leftist=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

191 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
    > itle("$ mil expenditure") ylabel(1250000(250000)2750000 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Urban civic" 2 "Socia
    > l" )) note("Graph #2" , span) title("`titvar1'" "Avg marginal predictions for successful episodes") plot1opts(msymbol(Oh) msize(medlar
    > ge)) plot2opts(msymbol(O) msize(medlarge))

    Variables that uniquely identify margins: leftist year

192 . graph export Robustnesstestfiles\Logfiles\robch9graph2.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph2.pdf saved as PDF format

193 .
194 . * ++++++++++++++++++++++++++++++++
195 . * STATE CAPACITY (HANSON/SIGMAN)
196 . * ++++++++++++++++++++++++++++++++
197 . * Note that sample size is reduced due to temporal coverage of the data
198 .
199 . // SUCCESSFUL SOCIAL VS. MATCHED CASES
200 . * Regression results were presented in Chapter 9 do-file
201 . * Will provide graph, test for treatment effect, and check treatment effect estimation assumptions
202 . use matcheddiffindifflong.dta, clear

203 . global yvar = "statecapacity"

204 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

205 . quietly{

206 . global condvar = "leftist==1 & success==1"

207 . quietly: chp9matchmultimp

208 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if $condvar [pweight=freqwt], fe cluster(revi
    > d)

209 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

210 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yl
    > abel(-1(.25).5 ,format(%9.2fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Successful social" )) note("Graph #3" , span) titl
    > e("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol(O) msize(medlarge))

    Variables that uniquely identify margins: revny year

211 . graph export Robustnesstestfiles\Logfiles\robch9graph3.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph3.pdf saved as PDF format

212 . //
213 . // Testing for a statistically significant "treatment" effect
214 . *       Treatment in this case consists of experiencing a successful social rev vs. no rev in matched cases
215 . quietly: mi passive: generate treat=0

216 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

217 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (20):
      .........10.........20 done

    Multiple-imputation estimates                   Imputations       =         20
                                                    Number of obs     =        209
    Group variable:
                                                    Number of groups  =          .
                                                    Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                    Average RVI       =     0.2094
                                                    Largest FMI       =     0.1181
                                                    Complete DF       =          3
    DF adjustment:   Small sample                   DF:     min       =       1.97
                                                            avg       =       1.99
    Within VCE type:       Robust                           max       =       2.00
```

```
                                (Within VCE adjusted for 4 clusters in revid)
------------------------------------------------------------------------------
statecapac~y | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |  -.1361582    .229033    -0.59   0.612    -1.121723    .8494064
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   .0972319   .0300647     3.23   0.086    -.0341541     .228618
          2  |     .15589   .0806782     1.93   0.193    -.1919781    .5037581
          3  |   .0435925   .1186581     0.37   0.749     -.467843     .555028
          4  |   .0647796   .1170847     0.55   0.636    -.4398984    .5694576
          5  |   .1095085    .228751     0.48   0.679    -.8751886    1.094206
          6  |   .2814077   .1016789     2.77   0.110    -.1571225    .7199379
          7  |   .3163557   .1112767     2.84   0.105      -.16338    .7960913
          8  |   .3796759   .0983372     3.86   0.061    -.0445118    .8038636
          9  |   .3498217   .1297906     2.70   0.115    -.2094364    .9090799
         10  |   .2484508   .1287707     1.93   0.194    -.3064257    .8033272
             |
       _cons |  -.6165139   .1561886    -3.95   0.059    -1.288919    .0558912
------------------------------------------------------------------------------
```

```
. *         * RESULT:  Negative, but no statistically significant effect (likely sample too small; visual evidence of possible effect)
. //
. // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
. * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
. *       are parallel between control and treatment groups in the pretreatment period).
. *    Statistical significance indicates that trends are not parallel.
. quietly: chp9matchptrends

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over  imputations: F-score = .15754666   p-value = .71797641

. *         * RESULT: Statistically insignificant: no evidence of parallel trends assumption violation
. //
. * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
. *       Statistical significance indicates that effects are observed prior to treatment.
. quietly: chp9matchgranger

. quietly: mi query

. quietly: local M = r(M)

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 20 imputations: F-score = 1.3729535   p-value = .3772628

. *         * RESULT: Statistically insignificant: no evidence that treatment effects were observed prior to treatment period.
. //
. * III) Grangerplot of lags and leads of the treatment time variable.
. *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
. *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.
. quietly: chp9matchgrangerplot

. coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(centered) alignment(bottom)) ciopts(recast(rcap)) note("Graph #4" , span) title("`titvar1'""Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))
(note:  named style centered not found in class horizontal, default attributes used)

. graph export Robustnesstestfiles\Logfiles\robch9graph4.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph4.pdf saved as PDF format

. *         * RESULT:  The negative impact of revolution on state capacity is short-term, and dissipates relatively quickly.
. //
. * IV) Test for the influence of alternative treatments in surrounding periods
. *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
. *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
. quietly: chp9matchalttreat

. esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  statecapacity
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat              -0.136
                  (-0.59)
alttreat                          0.0226          0.0590           0.280           0.398
                                  (0.23)          (0.54)          (1.15)          (1.93)
------------------------------------------------------------------------------------------------
Controls
treat                            -0.144          -0.176          -0.381          -0.434
                                 (-0.68)         (-0.97)         (-1.83)         (-1.84)
------------------------------------------------------------------------------------------------
N                     209             209             209             209             209
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
. *         * RESULT:  No evidence of any statistically significant effects.
. //
. * V) Lagged DV test
. *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
. quietly: chp9matchdvlag

. esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for statecapacity
------------------------------------------------------------------------------
                    No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat              -0.136          -0.233          -0.307          -0.263
                  (0.229)         (0.141)         (0.174)         (0.148)
------------------------------------------------------------------------------
Controls
laggeddv1                           0.367**                         0.386**
                                   (0.0272)                        (0.0251)
laggeddv2                                            0.156         -0.0584
                                                    (0.0810)        (0.0683)
------------------------------------------------------------------------------
N                     209             207             206             205
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

.         * RESULT: Evidence of AR1 process, but no influence on the treatment variable
.
.
. // SUCCESSFUL URBAN CIVIC VS. MATCHED CASES
. * Regression results were presented in Chapter 9 do-file
. * Will provide graph, test for treatment effect, and check treatment effect estimation assumptions
. global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

. quietly{

. global condvar = "urbancivic==1 & success==1"

. quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if $condvar [pweight=freqwt], fe cluster(revi
> d)

. quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

. marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yl
> abel(-.5(.25).5 ,format(%9.2fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Successful urban civic" )) note("Graph #5" , span
> ) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol(O) msize(medlarge))

Variables that uniquely identify margins: revny year

. graph export Robustnesstestfiles\Logfiles\robch9graph5.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph5.pdf saved as PDF format

. //
. // Testing for a statistically significant "treatment" effect
. * Treatment in this case consists of experiencing a successful urban civic rev vs. no rev in matched cases
. quietly: mi passive: replace treat=0

. quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

. mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
> r) vce(cluster revid)

Imputations (20):
  .........10.........20 done

Multiple-imputation estimates                   Imputations       =         20
                                                Number of obs     =        748
Group variable:
                                                Number of groups  =          .
                                                Obs per group:
                                                              min =          .
                                                              avg =          .
                                                              max =          .
                                                Average RVI       =     0.4036
                                                Largest FMI       =     0.2853
                                                Complete DF       =         20
DF adjustment:   Small sample                   DF:     min       =      13.01
                                                        avg       =      16.02
Within VCE type:       Robust                           max       =      18.26

                                  (Within VCE adjusted for 21 clusters in revid)
------------------------------------------------------------------------------
statecapac~y | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |  -.0793325   .0862285    -0.92   0.374    -.2655975    .1069325
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   .0094092   .0185843     0.51   0.619    -.0295951    .0484135
          2  |  -.0069627    .031193    -0.22   0.826    -.0726002    .0586748
          3  |  -.0492139   .0724958    -0.68   0.508    -.2045022    .1060744
          4  |  -.0337453   .0785081    -0.43   0.673    -.2006065     .133116
          5  |  -.0011683   .0679685    -0.02   0.987    -.1462582    .1439215
          6  |   .0017231   .0787955     0.02   0.983    -.1654984    .1689446
          7  |   .0449092   .0724867     0.62   0.544    -.1084636    .1982821
          8  |   .0546692   .0717446     0.76   0.458      -.09793    .2072683
          9  |   .0484874   .0721537     0.67   0.511     -.104162    .2011368
```

```
         10  |   .0594731   .0774886     0.77   0.453    -.1042002    .2231465
             |
      _cons  |   -.006852   .0460484    -0.15   0.883    -.1034972    .0897932
------------------------------------------------------------------------------

. *         * RESULT:  Negative, but not statistically significant
. //
. // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
. * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
. *       are parallel between control and treatment groups in the pretreatment period).
. *    Statistical significance indicates that trends are not parallel.
. quietly: chp9matchptrends

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 20 imputations: F-score = 1.5117208   p-value = .23314551

. *         * RESULT: No statistically significant evidence of violation of parallel trends assumption
. //
. * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
. *       Statistical significance indicates that effects are observed prior to treatment.
. quietly: chp9matchgranger

. quietly: mi query

. quietly: local M = r(M)

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 20 imputations: F-score = 2.1359601   p-value = .14429743

. *         * RESULT: Statistically insignificant: no evidence that treatment effects were observed prior to treatment period.
. //
. * III) Grangerplot of lags and leads of the treatment time variable.
. *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
. *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
. coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(centered) alignment(bottom)) ciopts(recast(rcap)) note("Graph #6" , span) title("`titvar1'""Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))
(note:  named style centered not found in class horizontal, default attributes used)

. graph export Robustnesstestfiles\Logfiles\robch9graph6.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph6.pdf saved as PDF format

. *         * RESULT:  The negative impact of revolution on state capacity is short-term, and dissipates relatively quickly.
. //
. * IV) Test for the influence of alternative treatments in surrounding periods
. *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
. *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
. quietly: chp9matchalttreat

. esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  statecapacity
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat             -0.0793
                  (-0.92)
alttreat                          0.0404          0.0854          0.0269         -0.0326
                                  (0.80)          (1.47)          (0.27)         (-0.35)
------------------------------------------------------------------------------------------------
Controls
treat                            -0.0928          -0.136          -0.103         -0.0549
                                 (-1.05)         (-1.41)         (-1.41)         (-0.71)
------------------------------------------------------------------------------------------------
N                     748             748             748             748             748
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

. *         * RESULT:  No evidence of any statistically significant effects.
. //
. * V) Lagged DV test
. *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
. * Control for possible effect of lagged values of the dependent variable on treatment effect (up to 2 lags)
. quietly: chp9matchdvlag

. esttab , se drop(*.year  cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for statecapacity
------------------------------------------------------------------------------
                    No lag           AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat             -0.0793         -0.0813         -0.117         -0.107
                 (0.0862)        (0.0767)        (0.0911)        (0.0765)
------------------------------------------------------------------------------
Controls
laggeddv1                          0.265***                       0.305**
                                  (0.0647)                       (0.0829)
laggeddv2                                           0.0947*        -0.0687
                                                   (0.0335)        (0.0438)
------------------------------------------------------------------------------
N                     748             728             708             708
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
311 .         * RESULT: Evidence of AR1 process, but no influence on the treatment variable
312 .
313 .
314 . * ================================
315 . * ECONOMIC GROWTH--MATCHED SAMPLES
316 . * ================================
317 . * Regression results were presented in Chapter 9 do-file, and graphs provided
318 . *       in Figures 9.4-9.6
319 . * Will test for treatment effects, and check treatment effect estimation assumptions
320 .
321 . // FAILED REVOLUTIONS VS. MATCHED COUNTERPARTS
322 . use matcheddiffindifflong.dta, clear

323 . global yvar = "gdpa1990index"

324 . label var gdpa1990index "Indexed GDPpc (100=yr<onset)"

325 . global notetext "FAILED VS. MATCHED CASES"

326 . quietly{

327 . global condvar = "success==0"

328 . quietly: chp9matchmultimp

329 . //
330 . // Testing for a statistically significant "treatment" effect
331 . * Treatment consists of experiencing a failed rev vs. no rev contention in matched counterparts
332 . quietly: mi passive: generate treat=0

333 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

334 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (10):
      .........10 done

    Multiple-imputation estimates                   Imputations       =         10
                                                    Number of obs     =      2,332
    Group variable:
                                                    Number of groups  =          .
                                                    Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                    Average RVI       =     0.0250
                                                    Largest FMI       =     0.0213
                                                    Complete DF       =         61
    DF adjustment:   Small sample                   DF:     min       =      57.79
                                                            avg       =      58.53
    Within VCE type:       Robust                           max       =      58.93

                                      (Within VCE adjusted for 62 clusters in revid)
    ------------------------------------------------------------------------------
    gdpa1990in~x | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
    ATET         |
          treat  |
       (1 vs 0)  |  -6.391652   3.207694    -1.99   0.051    -12.81305    .0297406
    -------------+----------------------------------------------------------------
    Controls     |
            year |
              1  |   1.807136   .5256224     3.44   0.001      .755107    2.859166
              2  |   3.928933   .8498004     4.62   0.000       2.2279    5.629965
              3  |   10.87778   2.418899     4.50   0.000     6.036814    15.71874
              4  |   13.63046   2.446375     5.57   0.000     8.735019    18.52591
              5  |   16.09012   2.556122     6.29   0.000     10.97505    21.20519
              6  |   18.74534   2.707548     6.92   0.000     13.32727    24.16341
              7  |   21.57012   2.802247     7.70   0.000     15.96216    27.17808
              8  |   25.51252   2.910025     8.77   0.000      19.6887    31.33633
              9  |   28.36703   3.057956     9.28   0.000     22.24699    34.48707
             10  |   30.40768   3.162257     9.62   0.000     24.07858    36.73677
                 |
           _cons |   96.07107   2.090223    45.96   0.000     91.88844    100.2537
    ------------------------------------------------------------------------------

335 .         * RESULT:  Marginally statistically significant at the .10 level
336 . //
337 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
338 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
339 . *       are parallel between control and treatment groups in the pretreatment period).
340 . *    Statistical significance indicates that trends are not parallel.
341 . quietly: chp9matchptrends

342 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 20 imputations: F-score = 2.3185974   p-value = .13300285

343 .         * RESULT: No statistically significant evidence of violation of the parallel trends assumption
```

```
. //
. * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
. *       Statistical significance indicates that effects are observed prior to treatment.
. quietly: chp9matchgranger

. quietly: mi query

. quietly: local M = r(M)

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 2.8477549   p-value = .06570732

.         * RESULT: Marginally statistically significant evidence (at the .10 level) that the effects were observed prior to treatment.
.         *       Treatment is likely related to economic development.
. //
. * III) Grangerplot of lags and leads of the treatment time variable.
. *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
. *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
. quietly: chp9matchgrangerplot

. coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(centered) alignment(bottom)) ciopts(recast(rcap)) note("Graph #7" , span) title("`titvar1'""Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))
(note:  named style centered not found in class horizontal, default attributes used)

. graph export Robustnesstestfiles\Logfiles\robch9graph7.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph7.pdf saved as PDF format

.         * RESULT:  Effect substantial at first but mitigated over time
. //
. * IV) Test for the influence of alternative treatments in surrounding periods
. *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
. *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
. quietly: chp9matchalttreat

. esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  gdpa1990index
------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------
ATET
treat              -6.392+
                  (-1.99)
alttreat                          -2.431+         -1.011           3.325           3.432+
                                 (-1.87)         (-0.96)          (1.59)          (1.69)
------------------------------------------------------------------------------------------
Controls
treat                             -5.581+         -5.717+         -9.301***       -8.965***
                                 (-1.84)         (-1.96)         (-4.06)         (-3.85)
------------------------------------------------------------------------------------------
N                    2332            2332            2332            2332            2332
------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

.         * RESULT:  No evidence of any diminution of statistical significance in the treatment variable.
. //
. * V) Lagged DV test
. *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
. * Control for possible effect of lagged values of the dependent variable on treatment effect (up to 2 lags)
. quietly: chp9matchdvlag

. esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for gdpa1990index
------------------------------------------------------------------------------
                    No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat              -6.392+         -1.377          -2.675          -1.666
                   (3.208)         (1.729)         (2.595)         (1.761)
------------------------------------------------------------------------------
Controls
laggeddv1                           0.583***                        0.622***
                                   (0.0284)                        (0.0387)
laggeddv2                                            0.363***      -0.0550**
                                                    (0.0281)        (0.0203)
------------------------------------------------------------------------------
N                    2332            2313            2301            2297
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

.         * RESULT:  Evidence of AR1 and AR2 processes that diminish the statistical significance of treatment.
.
```

```
. 
. // SUCCESSFUL REVOLUTIONS VS. MATCHED COUNTERPARTS
. global notetext "SUCCESSFUL VS. MATCHED CASES"

. quietly{

. global condvar = "success==1"

. // Testing for a statistically significant "treatment" effect
. * Treatment consists of experiencing a successful rev vs. no rev contention in matched counterparts
. quietly: mi passive: replace treat=0

. quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

. mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
> r) vce(cluster revid)

Imputations (10):
  .........10 done

Multiple-imputation estimates                   Imputations       =         10
                                                Number of obs     =      2,255
Group variable:
                                                Number of groups  =          .
                                                Obs per group:
                                                              min =          .
                                                              avg =          .
                                                              max =          .
                                                Average RVI       =     0.0571
                                                Largest FMI       =     0.0849
                                                Complete DF       =         58
DF adjustment:   Small sample                   DF:     min       =      49.78
                                                        avg       =      53.05
Within VCE type:       Robust                           max       =      55.71

                                  (Within VCE adjusted for 59 clusters in revid)
------------------------------------------------------------------------------
gdpa1990in~x | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |  -11.69404    2.97872    -3.93   0.000    -17.66732   -5.720774
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   1.075444   .5717871     1.88   0.066    -.0723123    2.223201
          2  |   2.326534   .9082578     2.56   0.013     .5059584    4.147111
          3  |   5.946918   1.812616     3.28   0.002      2.30577    9.588066
          4  |   7.028262   2.051847     3.43   0.001     2.910914    11.14561
          5  |   9.078346   2.354283     3.86   0.000     4.355434    13.80126
          6  |   11.38632   2.640096     4.31   0.000     6.091621    16.68103
          7  |   14.39778   2.887611     4.99   0.000     8.608001    20.18756
          8  |   16.60914   2.981057     5.57   0.000     10.63095    22.58732
          9  |   19.48245   3.199849     6.09   0.000     13.06582    25.89909
         10  |   22.27499   3.427637     6.50   0.000     15.40086    29.14911
             |
       _cons |   97.67347   1.773584    55.07   0.000     94.12015    101.2268
------------------------------------------------------------------------------

.         * RESULT:  Statistically significant at the .001 level--on average, an 11.7% decline
. //
. // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
. * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
. *       are parallel between control and treatment groups in the pretreatment period).
. *    Statistical significance indicates that trends are not parallel.
. quietly: chp9matchptrends

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 3.9218048   p-value = .05241387

.         * RESULT: Marginally statistically significant evidence, at the .10 level, of violation of parallel trends assumption
. //
. * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
. *       Statistical significance indicates that effects are observed prior to treatment.
. quietly: chp9matchgranger

. quietly: mi query

. quietly: local M = r(M)

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 2.7877091   p-value = .06982714

.         * RESULT: Marginally statistically significant evidence (at the .10 level) that the effects were observed prior to treatment.
.         *       Treatment is likely related to economic development.
. //
. * III) Grangerplot of lags and leads of the treatment time variable.
. *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
. *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
```

```
408 . quietly: chp9matchgrangerplot

409 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
    > large) justification(centered) alignment(bottom)) ciopts(recast(rcap)) note("Graph #8" , span) title("`titvar1'""Effects over time (le
    > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))
    (note:  named style centered not found in class horizontal, default attributes used)

410 . graph export Robustnesstestfiles\Logfiles\robch9graph8.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph8.pdf saved as PDF format

411 .         * RESULT:  Statistically significant evidence that the effects of "treatment" grow more substantial over time.
412 . //
413 . * IV) Test for the influence of alternative treatments in surrounding periods
414 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
415 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
    > y significant.
416 . quietly: chp9matchalttreat

417 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
    > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

    Possible alternative treatment effects for  gdpa1990index
    ------------------------------------------------------------------------------------------
                          Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
    ------------------------------------------------------------------------------------------
    ATET
    treat              -11.69***
                      (-3.93)
    alttreat                          -1.620          -2.194*         -2.847          -2.684
                                     (-1.43)         (-2.10)         (-1.37)         (-1.29)
    ------------------------------------------------------------------------------------------
    Controls
    treat                             -11.15***       -10.23***       -9.203***       -9.681***
                                     (-3.97)         (-3.86)         (-3.72)         (-3.85)
    ------------------------------------------------------------------------------------------
    N                    2255            2255            2255            2255            2255
    ------------------------------------------------------------------------------------------
    t statistics in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

418 .         * RESULT:  Statistically significant evidence of a decline in t-1, but this does not undermine the statistical significance of
    >  treatment.
419 . //
420 . * V) Lagged DV test
421 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
422 . quietly: chp9matchdvlag

423 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
    > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

    Testing for the possible effect of lagged values of the dependent variable for gdpa1990index
    ------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
    ------------------------------------------------------------------------
    ATET
    treat              -11.69***       -4.731*         -7.716**        -5.108**
                      (2.979)         (1.818)         (2.633)         (1.839)
    ------------------------------------------------------------------------
    Controls
    laggeddv1                          0.528***                        0.591***
                                     (0.0597)                        (0.0544)
    laggeddv2                                           0.276***      -0.0928**
                                                       (0.0677)        (0.0301)
    ------------------------------------------------------------------------
    N                    2255            2230            2213            2210
    ------------------------------------------------------------------------
    Standard errors in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

424 .         * RESULT: AR1 and AR2 processes that influence the outcome, but do not undermine the statistical significance of treatment.
425 .
426 .
427 . // FAILED SOCIAL VS. MATCHED COUNTERPARTS
428 . global notetext "FAILED SOCIAL VS. MATCHED CASES"

429 . quietly {

430 . global condvar = "success==0 & leftist==1"

431 . // Testing for a statistically significant "treatment" effect
432 . * Treatment consists of experiencing a failed social rev vs. no rev contention in matched counterparts
433 . quietly: mi passive: replace treat=0

434 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

435 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (10):
      .........10 done
```

```
Multiple-imputation estimates                   Imputations       =         10
                                                Number of obs     =        836
Group variable:
                                                Number of groups  =          .
                                                Obs per group:
                                                              min =          .
                                                              avg =          .
                                                              max =          .
                                                Average RVI       =     0.0937
                                                Largest FMI       =     0.0864
                                                Complete DF       =         22
DF adjustment:   Small sample                   DF:     min       =      18.55
                                                        avg       =      19.82
Within VCE type:       Robust                           max       =      20.18

                                (Within VCE adjusted for 23 clusters in revid)
------------------------------------------------------------------------------
gdpa1990in~x | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |  -11.08686   4.320341    -2.57   0.019    -20.14447   -2.029255
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   2.107057   .7470017     2.82   0.011     .5446137      3.6695
          2  |   3.581124   1.403964     2.55   0.019     .6452344    6.517013
          3  |   17.22565   5.165029     3.34   0.003     6.452897     27.9984
          4  |   19.64078   5.322925     3.69   0.001     8.540566      30.741
          5  |   22.09884   5.455023     4.05   0.001     10.72208    33.47561
          6  |   24.80913   5.535361     4.48   0.000     13.26423    36.35403
          7  |   26.80248   5.613828     4.77   0.000      15.0958    38.50915
          8  |   29.92242   5.873501     5.09   0.000     17.67618    42.16866
          9  |   33.18124   6.234888     5.32   0.000     20.18273    46.17974
         10  |   34.27431   6.222105     5.51   0.000     21.30032     47.2483
             |
       _cons |   96.41888   3.248374    29.68   0.000     89.64437    103.1934
------------------------------------------------------------------------------
```

```
436 .         * RESULT:  Statistically significant at the .05 level, with an avg decline of 11.1% as a result of "treatment"
437 . //
438 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
439 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
440 . *       are parallel between control and treatment groups in the pretreatment period).
441 . *    Statistical significance indicates that trends are not parallel.
442 . quietly: chp9matchptrends

443 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = 2.7591347   p-value = .11088687

444 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
445 . //
446 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
447 . *       Statistical significance indicates that effects are observed prior to treatment.
448 . quietly: chp9matchgranger

449 . quietly: mi query

450 . quietly: local M = r(M)

451 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = 1.6753621   p-value = .2102594

452 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
453 . //
454 . * III) Grangerplot of lags and leads of the treatment time variable.
455 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
456 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
457 . quietly: chp9matchgrangerplot

458 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
    > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #9" , span) title("`titvar1'" "Effects over time (lea
    > ds & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

459 . graph export Robustnesstestfiles\Logfiles\robch9graph9.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph9.pdf saved as PDF format

460 .         * RESULT:  Statistically significant evidence that the effects of "treatment" lasts at least 4 yrs,
461 .         *    and then begins to mitigate.
462 . //
463 . * IV) Test for the influence of alternative treatments in surrounding periods
464 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
465 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
    > y significant.
466 . quietly: chp9matchalttreat

467 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
    > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

    Possible alternative treatment effects for  gdpa1990index
    ------------------------------------------------------------------------------------------
                          Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
    ------------------------------------------------------------------------------------------
    ATET
    treat              -11.09*
                      (-2.57)
    alttreat                          -2.600          -1.991           0.502           0.112
                                     (-1.72)         (-1.35)          (0.19)          (0.04)
    ------------------------------------------------------------------------------------------
    Controls
    treat                             -10.22*         -9.759*         -11.53**        -11.17**
```

```
                                  (-2.50)         (-2.54)         (-3.43)         (-3.10)
------------------------------------------------------------------------------------------------
N                     836             836             836             836             836
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
. *         * RESULT:  No evidence of alternative treatments affecting the relationship.
. //
. * V) Lagged DV test
. *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
. quietly: chp9matchdvlag

. esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for gdpa1990index
------------------------------------------------------------------------------
                    No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat              -11.09*         -3.056          -5.614          -3.402
                  (4.320)         (3.058)         (4.413)         (2.944)
------------------------------------------------------------------------------
Controls
laggeddv1                           0.589***                        0.653***
                                   (0.0482)                        (0.0581)
laggeddv2                                            0.359***       -0.0854*
                                                    (0.0540)        (0.0341)
------------------------------------------------------------------------------
N                     836             830             826             826
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
. *         * RESULT: AR1 and AR2 processes appear to undermine the statistical significance of treatment.
. *
. *
. // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
. global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

. quietly{

. global condvar = "success==1 & leftist==1"

. // Testing for a statistically significant "treatment" effect
. * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
. quietly: mi passive: replace treat=0

. quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

. mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
> r) vce(cluster revid)

Imputations (10):
  .........10 done

Multiple-imputation estimates                   Imputations       =         10
                                                Number of obs     =        374
Group variable:
                                                Number of groups  =          .
                                                Obs per group:
                                                              min =          .
                                                              avg =          .
                                                              max =          .
                                                Average RVI       =     0.3395
                                                Largest FMI       =     0.2160
                                                Complete DF       =          8
DF adjustment:   Small sample                   DF:     min       =       5.42
                                                        avg       =       5.97
Within VCE type:       Robust                           max       =       6.51

                                (Within VCE adjusted for 9 clusters in revid)
------------------------------------------------------------------------------
gdpa1990in~x | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |  -18.49933   9.748396    -1.90   0.103    -41.98398    4.985321
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |    2.27718   1.153978     1.97   0.093    -.5017408    5.056102
          2  |   2.615691    1.10375     2.37   0.053    -.0500657    5.281448
          3  |   10.45343   3.847393     2.72   0.035     1.015695    19.89117
          4  |   11.92492   4.049978     2.94   0.026     1.995221    21.85462
          5  |   14.24351   4.018749     3.54   0.013     4.366404    24.12062
          6  |   17.67735   3.725883     4.74   0.004     8.444486    26.91022
          7  |   19.68772    3.86074     5.10   0.003      10.1163    29.25913
          8  |   21.47199   4.023004     5.34   0.002     11.47333    31.47065
          9  |   23.82273   4.421792     5.39   0.002     12.83812    34.80733
         10  |   25.64422   4.069291     6.30   0.001     15.42431    35.86414
             |
       _cons |   97.38431   2.742052    35.52   0.000     90.80085    103.9678
------------------------------------------------------------------------------
```

```
. * RESULT:  Not statistically significant (due to small sample size), but quite substantial decline of 18.5% as a result of tre
> atment
. //
. // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
. * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
. *       are parallel between control and treatment groups in the pretreatment period).
. *    Statistical significance indicates that trends are not parallel.
. quietly: chp9matchptrends

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 5.7827762   p-value = .04285851

. * RESULT: Statistically significant evidence (at the .05 level) of violation of parallel trends assumption
. //
. * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
. *       Statistical significance indicates that effects are observed prior to treatment.
. quietly: chp9matchgranger

. quietly: mi query

. quietly: local M = r(M)

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 2.9759072   p-value = .10810286

. * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
. //
. * III) Grangerplot of lags and leads of the treatment time variable.
. *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
. *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
. quietly: chp9matchgrangerplot

. coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #10" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

. graph export Robustnesstestfiles\Logfiles\robch9graph10.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph10.pdf saved as PDF format

. * RESULT:  Effect is statistically significant for the first 3 yrs after rev, and then begins to mitigate.
. //
. * IV) Test for the influence of alternative treatments in surrounding periods
. *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
. *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
. quietly: chp9matchalttreat

. esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  gdpa1990index
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat              -18.50
                  (-1.90)
alttreat                          -3.044+         -5.158+         -1.317           2.233
                                 (-2.16)         (-2.20)         (-0.27)          (0.42)
------------------------------------------------------------------------------------------------
Controls
treat                             -17.48          -15.06          -17.35          -20.17+
                                 (-1.81)         (-1.64)         (-1.83)         (-2.01)
------------------------------------------------------------------------------------------------
N                    374             374             374             374             374
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

. * RESULT:  No evidence of alternative treatments affecting the relationship in a substantial way.
. //
. * V) Lagged DV test
. *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
. quietly: chp9matchdvlag

. esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for gdpa1990index
------------------------------------------------------------------------------
                    No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat              -18.50          -11.29          -16.09          -12.08
                  (9.748)         (6.437)         (8.672)         (6.403)
------------------------------------------------------------------------------
Controls
laggeddv1                          0.334+                           0.456*
                                  (0.149)                         (0.147)
laggeddv2                                           0.0927         -0.162+
                                                   (0.145)        (0.0842)
------------------------------------------------------------------------------
N                    374             372             371             371
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
523 .         * RESULT: AR1 and AR2 processes, but do not alter the relationship.
524 .
525 .
526 . // FAILED URBAN CIVIC VS. MATCHED COUNTERPARTS
527 . global notetext "FAILED URBAN CIVIC VS. MATCHED CASES"

528 . quietly{

529 . global condvar = "success==0 & urbancivic==1"

530 . // Testing for a statistically significant "treatment" effect
531 . * Treatment consists of experiencing a failed urban civic rev vs. no rev contention in matched counterparts
532 . quietly: mi passive: replace treat=0

533 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

534 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (10):
      .........10 done

    Multiple-imputation estimates                   Imputations       =         10
                                                    Number of obs     =        418
    Group variable:
                                                    Number of groups  =          .
                                                    Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                    Average RVI       =     0.0000
                                                    Largest FMI       =     0.0000
                                                    Complete DF       =          9
    DF adjustment:   Small sample                   DF:     min       =       7.50
                                                            avg       =       7.50
    Within VCE type:       Robust                           max       =       7.50

                                  (Within VCE adjusted for 10 clusters in revid)
    ------------------------------------------------------------------------------
    gdpa1990in~x | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
    ATET         |
           treat |
       (1 vs 0)  |   5.961861   10.16354     0.59   0.575    -17.75008     29.6738
    -------------+----------------------------------------------------------------
    Controls     |
            year |
              1  |   2.751618   1.135886     2.42   0.044     .1015501    5.401686
              2  |   6.199059   1.622785     3.82   0.006     2.413037    9.985082
              3  |   3.898805   2.320746     1.68   0.134    -1.515587    9.313198
              4  |   6.900042   2.637782     2.62   0.033     .7459913    13.05409
              5  |   11.23661   4.309091     2.61   0.033     1.183329    21.28989
              6  |   15.22695    4.83438     3.15   0.015     3.948149    26.50575
              7  |   19.23071   5.352795     3.59   0.008     6.742426    31.71899
              8  |   23.32489    5.89211     3.96   0.005     9.578362    37.07141
              9  |   26.51954   5.981586     4.43   0.003     12.56426    40.47482
             10  |   28.47968   6.650205     4.28   0.003     12.96449    43.99487
                 |
           _cons |   93.80094   6.244575    15.02   0.000      79.2321    108.3698
    ------------------------------------------------------------------------------

535 .         * RESULT:  Positive, but not statistically significant.
536 . //
537 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
538 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
539 . *       are parallel between control and treatment groups in the pretreatment period).
540 . *    Statistical significance indicates that trends are not parallel.
541 . quietly: chp9matchptrends

542 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = .04309756   p-value = .84016313

543 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
544 . //
545 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
546 . *       Statistical significance indicates that effects are observed prior to treatment.
547 . quietly: chp9matchgranger

548 . quietly: mi query

549 . quietly: local M = r(M)

550 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = .46470146   p-value = .64259478

551 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
552 . //
553 . * III) Grangerplot of lags and leads of the treatment time variable.
554 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
```

```
. *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
. quietly: chp9matchgrangerplot

. coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #11" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

. graph export Robustnesstestfiles\Logfiles\robch9graph11.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph11.pdf saved as PDF format

.         * RESULT:  Not statistically significant, but sign seems to reverse after 1 year.
. //
. * IV) Test for the influence of alternative treatments in surrounding periods
. *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
. *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
. quietly: chp9matchalttreat

. esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  gdpa1990index
------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------
ATET
treat               5.962
                   (0.59)
alttreat                          -0.694          0.0310           9.021           10.36
                                 (-0.42)          (0.02)          (1.04)          (1.30)
------------------------------------------------------------------------------------------
Controls
treat                              6.193           5.941          -1.931          -1.809
                                  (0.62)          (0.61)         (-0.57)         (-0.37)
------------------------------------------------------------------------------------------
N                    418             418             418             418             418
------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

.         * RESULT:  No evidence of alternative treatments being statistically significant or affecting the relationship in a substantia
> l way.
. //
. * V) Lagged DV test
. *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
. quietly: chp9matchdvlag

. esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for gdpa1990index
------------------------------------------------------------------------------
                   No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat               5.962           4.356           6.167           3.912
                   (10.16)         (2.807)         (4.575)         (2.933)
------------------------------------------------------------------------------
Controls
laggeddv1                           0.665***                        0.744***
                                   (0.0325)                        (0.0699)
laggeddv2                                           0.460***       -0.0944+
                                                   (0.0279)        (0.0479)
------------------------------------------------------------------------------
N                    418             417             416             416
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

.         * RESULT: Evidence for AR1 and AR2 processes, but do not alter the treatment variable substantially.
.
.
. // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
. global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

. quietly{

. global condvar = "success==1 & urbancivic==1"

. // Testing for a statistically significant "treatment" effect
. * Treatment consists of experiencing a failed urban civic rev vs. no rev contention in matched counterparts
. quietly: mi passive: replace treat=0

. quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

. mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
> r) vce(cluster revid)

Imputations (10):
  .........10 done
```

```
Multiple-imputation estimates                   Imputations       =         10
                                                Number of obs     =        946
Group variable:
                                                Number of groups  =          .
                                                Obs per group:
                                                              min =          .
                                                              avg =          .
                                                              max =          .
                                                Average RVI       =     0.1830
                                                Largest FMI       =     0.0775
                                                Complete DF       =         25
DF adjustment:   Small sample                   DF:     min       =      21.43
                                                        avg       =      22.60
Within VCE type:       Robust                           max       =      23.06

                                (Within VCE adjusted for 26 clusters in revid)
------------------------------------------------------------------------------
gdpa1990in~x | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |  -6.046674   3.832987    -1.58   0.129    -13.99765    1.904303
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   2.008243    .636664     3.15   0.005     .6858341    3.330651
          2  |   3.936135    1.04954     3.75   0.001     1.758421    6.113848
          3  |   7.458094   2.412358     3.09   0.005     2.462489     12.4537
          4  |   8.730197    2.96303     2.95   0.007     2.598634    14.86176
          5  |   10.31503   3.588425     2.87   0.009     2.892075    17.73798
          6  |   12.48468   4.085387     3.06   0.006     4.030649    20.93872
          7  |   15.49804    4.60814     3.36   0.003     5.965534    25.03055
          8  |   18.00698   4.747302     3.79   0.001      8.18783    27.82613
          9  |    20.6107   5.086344     4.05   0.000     10.08653    31.13486
         10  |   24.05228   5.527726     4.35   0.000     12.61147    35.49308
             |
       _cons |   96.06387   2.693417    35.67   0.000     90.49238    101.6353
------------------------------------------------------------------------------
```

```
584 .         * RESULT:  Negative, but not statistically significant.
585 . //
586 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
587 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
588 . *       are parallel between control and treatment groups in the pretreatment period).
589 . *    Statistical significance indicates that trends are not parallel.
590 . quietly: chp9matchptrends

591 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = .53383711   p-value = .47179052

592 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
593 . //
594 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
595 . *       Statistical significance indicates that effects are observed prior to treatment.
596 . quietly: chp9matchgranger

597 . quietly: mi query

598 . quietly: local M = r(M)

599 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = 2.5220559   p-value = .10052128

600 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
601 . //
602 . * III) Grangerplot of lags and leads of the treatment time variable.
603 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
604 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
605 . quietly: chp9matchgrangerplot

606 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
    > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #12" , span) title("`titvar1'" "Effects over time (le
    > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

607 . graph export Robustnesstestfiles\Logfiles\robch9graph12.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph12.pdf saved as PDF format

608 .         * RESULT:  Not statistically significant, but the negative effect grows more substantial over time.
609 . //
610 . * IV) Test for the influence of alternative treatments in surrounding periods
611 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
612 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
    > y significant.
613 . quietly: chp9matchalttreat

614 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
    > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

    Possible alternative treatment effects for  gdpa1990index
    ------------------------------------------------------------------------------------------
                          Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
    ------------------------------------------------------------------------------------------
    ATET
    treat              -6.047
                      (-1.58)
    alttreat                          -0.459          -1.274          -3.458          -3.694
                                     (-0.33)         (-1.01)         (-1.11)         (-1.15)
    ------------------------------------------------------------------------------------------
    Controls
    treat                             -5.894          -5.197          -3.021+         -3.276+
                                     (-1.61)         (-1.47)         (-1.90)         (-1.81)
```

```
------------------------------------------------------------------------------------------------
N                     946             946             946             946             946
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

615 .         * RESULT:  No evidence of alternative treatments being statistically significant or affecting the relationship in a substantia
    > l way.
616 . //
617 . * V) Lagged DV test
618 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
619 . quietly: chp9matchdvlag

620 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
    > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

    Testing for the possible effect of lagged values of the dependent variable for gdpa1990index
    ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
    ------------------------------------------------------------------------------
    ATET
    treat               -6.047          -1.519          -2.789          -1.521
                       (3.833)         (2.602)         (3.594)         (2.474)
    ------------------------------------------------------------------------------
    Controls
    laggeddv1                            0.580***                        0.625***
                                        (0.0685)                        (0.0605)
    laggeddv2                                            0.337***       -0.0751+
                                                        (0.0873)        (0.0412)
    ------------------------------------------------------------------------------
    N                     946             930             915             915
    ------------------------------------------------------------------------------
    Standard errors in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

621 .         * RESULT: Evidence for AR1 and AR2 processes, but do not alter the treatment variable substantially.
622 .
623 .
624 .
625 . *=====================================================================
626 . * RELATIONSHIP BETWEEN HENISZ MEASURE OF POLITICAL CONSTRAINTS AND
627 . *    POST-REVOLUTIONARY SOCIAL REVOLUTIONARY AND URBAN CIVIC GOVERNANCE
628 . *=====================================================================
629 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE
630 . * Will provide graphs and check causal effect assumptions
631 .
632 . // SUCCESSSFUL SOCIAL VS. SUCCESSFUL URBAN CIVIC
633 . quietly: use simplediffindifflong.dta, clear

634 . quietly: global yvar = "polconiii"

635 . quietly{

636 . quietly: chp9simpmultimp

637 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.leftist##ib(2).year if success==1, fe vce(robust)

638 . quietly: mimrgns, at(leftist=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

639 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
    > itle("Pol constraints measure") ylabel(-.1(.1).7 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Urban civic" 2 "Social" )) n
    > ote("Graph #13" , span) title("`titvar1'" "Avg marginal predictions for successful episodes") plot1opts(msymbol(Oh) msize(medlarge)) p
    > lot2opts(msymbol(O) msize(medlarge))

    Variables that uniquely identify margins: leftist year

640 . graph export Robustnesstestfiles\Logfiles\robch9graph13.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph13.pdf saved as PDF format

641 .
642 . // SUCCESSFUL SOCIAL VS. FAILED SOCIAL
643 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.success##ib(2).year if leftist==1, fe vce(robust)

644 . quietly: mimrgns, at(success=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

645 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
    > itle("Pol constraints measure") ylabel(-.1(.1).7 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Failed" 2 "Successful" )) no
    > te("Graph #14" , span) title("`titvar1'" "Avg marginal predictions for social revolutionary episodes") plot1opts(msymbol(Oh) msize(med
    > large)) plot2opts(msymbol(O) msize(medlarge))

    Variables that uniquely identify margins: success year

646 . graph export Robustnesstestfiles\Logfiles\robch9graph14.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph14.pdf saved as PDF format

647 .
648 . // SUCCESSFUL URBAN CIVIC VS. FAILED URBAN CIVIC
649 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.success##ib(2).year if urbancivic==1, fe vce(robust)
```

```
650 . quietly: mimrgns, at(success=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

651 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
    > itle("Pol constraints measure") ylabel(-.1(.1).7 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Failed" 2 "Successful" )) no
    > te("Graph #15" , span) title("`titvar1'" "Avg marginal predictions for urban civic episodes") plot1opts(msymbol(Oh) msize(medlarge)) p
    > lot2opts(msymbol(O) msize(medlarge))

    Variables that uniquely identify margins: success year

652 . graph export Robustnesstestfiles\Logfiles\robch9graph15.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph15.pdf saved as PDF format

653 .
654 .
655 . // SUCCESSFUL SOCIAL VS. MATCHED CASES
656 . use matcheddiffindifflong.dta, clear

657 . global yvar = "polconiii"

658 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

659 . quietly{

660 . global condvar = "success==1 & leftist==1"

661 . quietly: chp9matchmultimp

662 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if success==1 & leftist==1 [pweight=freqwt],
    > fe cluster(revid)

663 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

664 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
    > itle("Pol constraints measure") ylabel(-.1(.1).7 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched cases" 2 "Succ socia
    > l" )) note("Graph #16" , span) title("`titvar1'" "Avg marginal predictions, successful social vs. matched cases") plot1opts(msymbol(Oh
    > ) msize(medlarge)) plot2opts(msymbol(O) msize(medlarge))

    Variables that uniquely identify margins: revny year

665 . graph export Robustnesstestfiles\Logfiles\robch9graph16.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph16.pdf saved as PDF format

666 . // Testing for a statistically significant "treatment" effect
667 . * Treatment consists of experiencing a failed urban civic rev vs. no rev contention in matched counterparts
668 . quietly: mi passive: generate treat=0

669 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

670 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (10):
      .........10 done

    Multiple-imputation estimates                   Imputations       =         10
                                                    Number of obs     =        374
    Group variable:
                                                    Number of groups  =          .
                                                    Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                    Average RVI       =     0.5894
                                                    Largest FMI       =     0.6203
                                                    Complete DF       =          8
    DF adjustment:   Small sample                   DF:     min       =       2.83
                                                            avg       =       4.25
    Within VCE type:       Robust                           max       =       5.76

                                    (Within VCE adjusted for 9 clusters in revid)
    ------------------------------------------------------------------------------
       polconiii | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
    ATET         |
          treat  |
       (1 vs 0)  |  -.0136029   .0453964    -0.30   0.777    -.1319321    .1047263
    -------------+----------------------------------------------------------------
    Controls     |
            year |
              1  |  -.0004451   .0075398    -0.06   0.957    -.0252954    .0244052
              2  |   .0050097   .0101888     0.49   0.646    -.0221553    .0321748
              3  |   .0354852   .0414263     0.86   0.437     -.076885    .1478554
              4  |   .0374388   .0432798     0.87   0.434    -.0810964     .155974
              5  |   .0408411   .0476549     0.86   0.436     -.086739    .1684212
              6  |    .055344   .0438035     1.26   0.270    -.0624942    .1731821
              7  |   .0366496    .042788     0.86   0.440    -.0822498    .1555489
              8  |   .0568824   .0441196     1.29   0.265    -.0640656    .1778305
              9  |   .0596581   .0469892     1.27   0.274    -.0718529    .1911691
             10  |   .0676798   .0503298     1.34   0.251    -.0732848    .2086445
                 |
           _cons |   .0367048   .0163308     2.25   0.067    -.0036564     .077066
    ------------------------------------------------------------------------------
```

```
671 .         * RESULT:  Not statistically significant.
672 . //
673 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
674 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
675 . *       are parallel between control and treatment groups in the pretreatment period).
676 . *    Statistical significance indicates that trends are not parallel.
677 . quietly: chp9matchptrends

678 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = 1.2317024   p-value = .29931913

679 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
680 . //
681 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
682 . *       Statistical significance indicates that effects are observed prior to treatment.
683 . quietly: chp9matchgranger

684 . quietly: mi query

685 . quietly: local M = r(M)

686 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = 1.1185203   p-value = .37295998

687 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
688 . //
689 . * III) Grangerplot of lags and leads of the treatment time variable.
690 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
691 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
692 . quietly: chp9matchgrangerplot

693 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
    > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #17" , span) title("`titvar1'" "Effects over time (le
    > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

694 . graph export Robustnesstestfiles\Logfiles\robch9graph17.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph17.pdf saved as PDF format

695 .         * RESULT:  Not statistically significant, but the signs shift over time.
696 . //
697 . * IV) Test for the influence of alternative treatments in surrounding periods
698 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
699 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
    > y significant.
700 . quietly: chp9matchalttreat

701 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
    > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

    Possible alternative treatment effects for  polconiii
    ------------------------------------------------------------------------------------------------
                          Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
    ------------------------------------------------------------------------------------------------
    ATET
    treat              -0.0136
                       (-0.30)
    alttreat                        -0.00990         -0.0153          0.0569          0.0431
                                     (-0.47)         (-0.92)          (1.23)          (1.02)
    ------------------------------------------------------------------------------------------------
    Controls
    treat                            -0.0103        -0.00338         -0.0634         -0.0460
                                     (-0.22)         (-0.07)         (-1.42)         (-1.14)
    ------------------------------------------------------------------------------------------------
    N                     374             374             374             374             374
    ------------------------------------------------------------------------------------------------
    t statistics in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

702 .         * RESULT:  No evidence of alternative treatments being statistically significant or affecting the relationship in a substantia
    > l way.
703 . //
704 . * V) Lagged DV test
705 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
706 . quietly: chp9matchdvlag

707 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
    > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

    Testing for the possible effect of lagged values of the dependent variable for polconiii
    ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
    ------------------------------------------------------------------------------
    ATET
    treat              -0.0136         0.00342        0.000650         0.00515
                      (0.0454)        (0.0336)        (0.0397)        (0.0309)
    ------------------------------------------------------------------------------
    Controls
    laggeddv1                          0.435**                         0.511**
                                      (0.0922)                        (0.128)
    laggeddv2                                           0.158+         -0.136
                                                       (0.0560)        (0.0829)
    ------------------------------------------------------------------------------
    N                     374             369             368             364
    ------------------------------------------------------------------------------
    Standard errors in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
708 .         * RESULT: Evidence for AR1 processes, but do not alter the treatment variable substantially.
709 .
710 .
711 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
712 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

713 . quietly{

714 . global condvar = "success==1 & urbancivic==1"

715 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if success==1 & urbancivic==1 [pweight=freqwt
    > ], fe cluster(revid)

716 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

717 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
    > itle("Pol constraints measure") ylabel(-.1(.1).7 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched cases" 2 "Succ urban
    >  civic" )) note("Graph #18" , span) title("`titvar1'" "Avg marginal predictions, succ urban civic vs. matched cases") plot1opts(msymbo
    > l(Oh) msize(medlarge)) plot2opts(msymbol(O) msize(medlarge))

    Variables that uniquely identify margins: revny year

718 . graph export Robustnesstestfiles\Logfiles\robch9graph18.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph18.pdf saved as PDF format

719 . //
720 . // Testing for a statistically significant "treatment" effect
721 . * Treatment consists of experiencing a failed urban civic rev vs. no rev contention in matched counterparts
722 . quietly: mi passive: replace treat=0

723 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

724 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (10):
      .........10 done

    Multiple-imputation estimates                   Imputations       =         10
                                                    Number of obs     =        869
    Group variable:
                                                    Number of groups  =          .
                                                    Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                    Average RVI       =     0.1425
                                                    Largest FMI       =     0.0713
                                                    Complete DF       =         23
    DF adjustment:   Small sample                   DF:     min       =      19.79
                                                            avg       =      20.70
    Within VCE type:       Robust                           max       =      21.23

                                    (Within VCE adjusted for 24 clusters in revid)
    ------------------------------------------------------------------------------
       polconiii | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
    ATET         |
          treat |
       (1 vs 0)  |   .1185179   .0486348     2.44   0.024     .0172705    .2197653
    -------------+----------------------------------------------------------------
    Controls     |
            year |
              1  |  -.0124803    .013347    -0.94   0.360    -.0402188    .0152583
              2  |  -.0200967   .0196185    -1.02   0.317    -.0608697    .0206763
              3  |  -.0687964   .0299918    -2.29   0.032    -.1311871   -.0064056
              4  |   .0353947   .0396446     0.89   0.382    -.0470834    .1178729
              5  |   .0766321   .0285109     2.69   0.014     .0173006    .1359636
              6  |   .1081272   .0427682     2.53   0.020     .0191803     .197074
              7  |   .1118257   .0421359     2.65   0.015     .0241433    .1995082
              8  |   .1034139   .0391242     2.64   0.016     .0217509    .1850769
              9  |   .0715713   .0442771     1.62   0.122    -.0208516    .1639942
             10  |   .0726653   .0412053     1.76   0.093    -.0132363    .1585668
                 |
            _cons |   .1469978   .0247971     5.93   0.000     .0954626     .198533
    ------------------------------------------------------------------------------

725 .         * RESULT:  Positive and statistically significant at the .05 level.
726 . //
727 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
728 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
729 . *       are parallel between control and treatment groups in the pretreatment period).
730 . *    Statistical significance indicates that trends are not parallel.
731 . quietly: chp9matchptrends

732 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = 1.9031577   p-value = .18099159

733 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
```

```
734 . //
735 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
736 . *       Statistical significance indicates that effects are observed prior to treatment.
737 . quietly: chp9matchgranger

738 . quietly: mi query

739 . quietly: local M = r(M)

740 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = .98503314   p-value = .38863653

741 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
742 . //
743 . * III) Grangerplot of lags and leads of the treatment time variable.
744 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
745 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
746 . quietly: chp9matchgrangerplot

747 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
    > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #19" , span) title("`titvar1'" "Effects over time (le
    > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

748 . graph export Robustnesstestfiles\Logfiles\robch9graph19.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph19.pdf saved as PDF format

749 .         * RESULT:  Effect remains relatively stable and statistically significant over time.
750 . //
751 . * IV) Test for the influence of alternative treatments in surrounding periods
752 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
753 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
    > y significant.
754 . quietly: chp9matchalttreat

755 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
    > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

    Possible alternative treatment effects for  polconiii
    ------------------------------------------------------------------------------------------------
                          Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
    ------------------------------------------------------------------------------------------------
    ATET
    treat               0.119*
                       (2.44)
    alttreat                          -0.0320         -0.0273           0.193**         0.161***
                                      (-1.22)         (-1.36)           (3.23)          (3.95)
    ------------------------------------------------------------------------------------------------
    Controls
    treat                               0.129*          0.137*        -0.0507        -0.00245
                                       (2.63)          (2.79)         (-1.06)         (-0.05)
    ------------------------------------------------------------------------------------------------
    N                     869             869             869             869             869
    ------------------------------------------------------------------------------------------------
    t statistics in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

756 .         * RESULT:  Post-revolutionary developments in the first two years after revolution appear to play a critical role, turning the
    >  treatment effect
757 .         *                               statistically insignificant.
758 . //
759 . * V) Lagged DV test
760 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
761 . quietly: chp9matchdvlag

762 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
    > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

    Testing for the possible effect of lagged values of the dependent variable for polconiii
    ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
    ------------------------------------------------------------------------------
    ATET
    treat              0.119*          0.0911*          0.133**          0.107**
                      (0.0486)        (0.0353)        (0.0428)        (0.0362)
    ------------------------------------------------------------------------------
    Controls
    laggeddv1                           0.349***                        0.325***
                                       (0.0596)                        (0.0729)
    laggeddv2                                            0.146*         0.00317
                                                        (0.0542)        (0.0547)
    ------------------------------------------------------------------------------
    N                     869             853             837             837
    ------------------------------------------------------------------------------
    Standard errors in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

763 .         * RESULT: Evidence for AR1 and AR2 processes are present, but do not alter the statistical significance of the treatment varia
    > ble.
764 .
```

```
765 .
766 . *==============================
767 . * CORRUPTION AFTER REVOLUTION
768 . *==============================
769 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE, AND VISUAL RESULTS
770 . *       PRESENTED IN FIGURE 9.7
771 . * For matched sample, will test for  treatment effect, and check treatment effect
772 . *   estimation assumptions
773 .
774 .
775 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
776 . use matcheddiffindifflong.dta, clear

777 . global yvar = "vdcorr"

778 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

779 . quietly{

780 . global condvar = "success==1 & leftist==1"

781 . quietly: chp9matchmultimp

782 . //
783 . // Testing for a statistically significant "treatment" effect
784 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
785 . quietly: mi passive: generate treat=0

786 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

787 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (10):
      .........10 done

    Multiple-imputation estimates                   Imputations       =         10
                                                    Number of obs     =        374
    Group variable:
                                                    Number of groups  =          .
                                                    Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                    Average RVI       =     0.0000
                                                    Largest FMI       =     0.0000
                                                    Complete DF       =          8
    DF adjustment:   Small sample                   DF:     min       =       6.55
                                                            avg       =       6.55
    Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
    ------------------------------------------------------------------------------
          vdcorr | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
    ATET         |
           treat |
       (1 vs 0)  |  -.1381327   .0812343    -1.70   0.136    -.3329589    .0566934
    -------------+----------------------------------------------------------------
    Controls     |
            year |
              1  |    .004694   .0030997     1.51   0.177    -.0027402    .0121282
              2  |   .0022959   .0029821     0.77   0.468    -.0048562     .009448
              3  |   .0172973   .0277695     0.62   0.554    -.0493029    .0838975
              4  |  -.0124873   .0188282    -0.66   0.530    -.0576434    .0326687
              5  |  -.0136598   .0197712    -0.69   0.513    -.0610776     .033758
              6  |  -.0135132   .0210239    -0.64   0.542    -.0639354     .036909
              7  |  -.0099783   .0218446    -0.46   0.663    -.0623685     .042412
              8  |   -.002827    .023134    -0.12   0.906    -.0583099    .0526559
              9  |   .0095116   .0237737     0.40   0.702    -.0475054    .0665287
             10  |   .0107252   .0235445     0.46   0.663    -.0457422    .0671926
                 |
           _cons |   .6392227   .0349637    18.28   0.000     .5553685     .723077
    ------------------------------------------------------------------------------

788 .         * RESULT:  Negative but not statistically significant (likely due to small number of social revolutions).
789 . //
790 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
791 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
792 . *       are parallel between control and treatment groups in the pretreatment period).
793 . *    Statistical significance indicates that trends are not parallel.
794 . quietly: chp9matchptrends

795 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = 1.5804174   p-value = .2441598

796 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
797 . //
798 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
```

```
799 . *       Statistical significance indicates that effects are observed prior to treatment.
800 . quietly: chp9matchgranger

801 . quietly: mi query

802 . quietly: local M = r(M)

803 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = .79497106   p-value = .48427941

804 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
805 . //
806 . * III) Grangerplot of lags and leads of the treatment time variable.
807 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
808 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
809 . quietly: chp9matchgrangerplot

810 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
    > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #20" , span) title("`titvar1'" "Effects over time (le
    > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

811 . graph export Robustnesstestfiles\Logfiles\robch9graph20.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph20.pdf saved as PDF format

812 .         * RESULT:  Effect remains relatively stable (though statistically insignificant) over time.
813 . //
814 . * IV) Test for the influence of alternative treatments in surrounding periods
815 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
816 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
    > y significant.
817 . quietly: chp9matchalttreat

818 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
    > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

    Possible alternative treatment effects for  vdcorr
    ------------------------------------------------------------------------------------------------
                          Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
    ------------------------------------------------------------------------------------------------
    ATET
    treat              -0.138
                      (-1.70)
    alttreat                       -0.00704        -0.00722         -0.0624         -0.0320
                                    (-1.09)         (-1.17)         (-1.39)         (-1.34)
    ------------------------------------------------------------------------------------------------
    Controls
    treat                           -0.136          -0.133         -0.0835          -0.114
                                    (-1.67)         (-1.63)         (-1.42)         (-1.62)
    ------------------------------------------------------------------------------------------------
    N                      374             374             374             374             374
    ------------------------------------------------------------------------------------------------
    t statistics in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

819 .         * RESULT:  No evidence for alternative treatment effects at different times outside revolutionary contention.
820 . //
821 . * V) Lagged DV test
822 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
823 . quietly: chp9matchdvlag

824 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
    > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

    Testing for the possible effect of lagged values of the dependent variable for vdcorr
    ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
    ------------------------------------------------------------------------------
    ATET
    treat              -0.138          -0.107+         -0.137          -0.101
                      (0.0812)        (0.0554)        (0.0730)        (0.0549)
    ------------------------------------------------------------------------------
    Controls
    laggeddv1                          0.428**                         0.520*
                                      (0.100)                         (0.146)
    laggeddv2                                           0.205*         -0.114
                                                       (0.0585)        (0.0694)
    ------------------------------------------------------------------------------
    N                      374             374             374             374
    ------------------------------------------------------------------------------
    Standard errors in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

825 .         * RESULT: Evidence that AR1  processes are present, and these turn the treatment effect statistically significant at the .10 l
    > evel
826 .         *       when included in the specification.
827 .
828 . * SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
829 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"
```

```
830 . quietly{

831 . global condvar = "success==1 & urbancivic==1"

832 . // Testing for a statistically significant "treatment" effect
833 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
834 . quietly: mi passive: replace treat=0

835 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

836 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (10):
      .........10 done

    Multiple-imputation estimates                   Imputations       =         10
                                                    Number of obs     =        946
    Group variable:
                                                    Number of groups  =          .
                                                    Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                    Average RVI       =     0.2190
                                                    Largest FMI       =     0.1113
                                                    Complete DF       =         25
    DF adjustment:   Small sample                   DF:     min       =      20.48
                                                            avg       =      22.46
    Within VCE type:       Robust                           max       =      23.21

                                  (Within VCE adjusted for 26 clusters in revid)
    ------------------------------------------------------------------------------
          vdcorr | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
    ATET         |
           treat |
       (1 vs 0)  |  -.0802905   .0306621    -2.62   0.015    -.1437238   -.0168572
    -------------+----------------------------------------------------------------
    Controls     |
            year |
              1  |   .0012302   .0025546     0.48   0.635    -.0040517    .0065122
              2  |   .0035532   .0058742     0.60   0.551    -.0085922    .0156986
              3  |    .017384   .0138605     1.25   0.222    -.0112942    .0460622
              4  |  -.0018138   .0116312    -0.16   0.877     -.025887    .0222594
              5  |   .0041897   .0105594     0.40   0.695    -.0176587    .0260381
              6  |   .0123101   .0118446     1.04   0.310    -.0122005    .0368208
              7  |   .0116905   .0121556     0.96   0.347    -.0135011     .036882
              8  |   .0163083   .0121668     1.34   0.194    -.0089702    .0415868
              9  |   .0164233   .0118458     1.39   0.180    -.0081887    .0410353
             10  |   .0144931    .012452     1.16   0.258     -.011442    .0404282
                 |
           _cons |   .6892369   .0111924    61.58   0.000     .6660956    .7123782
    ------------------------------------------------------------------------------

837 .         * RESULT:  Negative and statistically significant at the .05 level.
838 . //
839 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
840 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
841 . *       are parallel between control and treatment groups in the pretreatment period).
842 . *    Statistical significance indicates that trends are not parallel.
843 . quietly: chp9matchptrends

844 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = 2.413197   p-value = .13288558

845 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
846 . //
847 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
848 . *       Statistical significance indicates that effects are observed prior to treatment.
849 . quietly: chp9matchgranger

850 . quietly: mi query

851 . quietly: local M = r(M)

852 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = 1.210721   p-value = .31486289

853 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
854 . //
855 . * III) Grangerplot of lags and leads of the treatment time variable.
856 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
857 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
858 . quietly: chp9matchgrangerplot

859 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
    > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #21" , span) title("`titvar1'" "Effects over time (le
    > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))
```

```
860 . graph export Robustnesstestfiles\Logfiles\robch9graph21.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph21.pdf saved as PDF format

861 .         * RESULT:  After an initial decline, effect grows statistically insignicant over time, as corruption
862 .         *    gradually re-emerges.
863 . //
864 . * IV) Test for the influence of alternative treatments in surrounding periods
865 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
866 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
    > y significant.
867 . quietly: chp9matchalttreat

868 . esttab , drop (*.year  cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
    > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

    Possible alternative treatment effects for  vdcorr
    ------------------------------------------------------------------------------------------
                          Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
    ------------------------------------------------------------------------------------------
    ATET
    treat             -0.0803*
                      (-2.62)
    alttreat                        -0.00823         -0.0117         -0.0198        -0.00917
                                     (-1.50)         (-1.49)         (-0.87)         (-0.48)
    ------------------------------------------------------------------------------------------
    Controls
    treat                            -0.0775*        -0.0725*        -0.0629*        -0.0734**
                                     (-2.51)         (-2.26)         (-2.37)         (-3.00)
    ------------------------------------------------------------------------------------------
    N                        946             946             946             946             946
    ------------------------------------------------------------------------------------------
    t statistics in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

869 .         * RESULT:  No evidence of alternative treatment times, and no change to the statistical significance
870 .         *       of the treatment effect.
871 . //
872 . * V) Lagged DV test
873 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
874 . quietly: chp9matchdvlag

875 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
    > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

    Testing for the possible effect of lagged values of the dependent variable for vdcorr
    ------------------------------------------------------------------------
                      No lag           AR 1           AR 2          AR 1,2
    ------------------------------------------------------------------------
    ATET
    treat             -0.0803*       -0.0737**       -0.0851*       -0.0718*
                     (0.0307)        (0.0245)        (0.0319)        (0.0266)
    ------------------------------------------------------------------------
    Controls
    laggeddv1                         0.278***                        0.298***
                                     (0.0697)                        (0.0589)
    laggeddv2                                          0.137*         -0.0315
                                                      (0.0608)        (0.0351)
    ------------------------------------------------------------------------
    N                        946             930             916             914
    ------------------------------------------------------------------------
    Standard errors in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

876 .         * RESULT: Evidence for AR1  processes that do not alter the statistical significance of the treatment variable.
877 .
878 .
879 . *================================================
880 . * IMPACT OF REVOLUTION ON INVESTMENT AS % OF GDP
881 . *================================================
882 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE
883 . * Will provide graphs, test for  treatment effects, and check treatment effect
884 . *   estimation assumptions
885 .
886 . // SUCCESSSFUL SOCIAL VS. SUCCESSFUL URBAN CIVIC
887 . quietly: use simplediffindifflong.dta, clear

888 . global yvar = "investtogdp"

889 . quietly{

890 . quietly: chp9simpmultimp

891 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.leftist##ib(2).year if success==1, fe vce(robust)

892 . quietly: mimrgns, at(leftist=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

893 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
    > itle("Investment as % of GDP") ylabel(10(5)30 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Urban civic" 2 "Social" )) note
    > ("Graph #22" , span) title("`titvar1'" "Avg marginal predictions for successful episodes") plot1opts(msymbol(Oh) msize(medlarge)) plot
    > 2opts(msymbol(O) msize(medlarge))

    Variables that uniquely identify margins: leftist year
```

```
894 . graph export Robustnesstestfiles\Logfiles\robch9graph22.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph22.pdf saved as PDF format

895 .
896 . * SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
897 . use matcheddiffindifflong.dta, clear

898 . global yvar = "investtogdp"

899 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

900 . quietly{

901 . global condvar = "success==1 & leftist==1"

902 . quietly: chp9matchmultimp

903 . //
904 . // Testing for a statistically significant "treatment" effect
905 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
906 . quietly: mi passive: generate treat=0

907 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

908 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (10):
      .........10 done

    Multiple-imputation estimates                   Imputations       =         10
                                                    Number of obs     =        231
    Group variable:
                                                    Number of groups  =          .
                                                    Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                    Average RVI       =     0.0000
                                                    Largest FMI       =     0.0000
                                                    Complete DF       =          4
    DF adjustment:   Small sample                   DF:     min       =       2.86
                                                            avg       =       2.86
    Within VCE type:       Robust                           max       =       2.86

                                   (Within VCE adjusted for 5 clusters in revid)
    ------------------------------------------------------------------------------
     investtogdp | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
    ATET         |
          treat  |
       (1 vs 0)  |  -11.06397   5.347761    -2.07   0.135    -28.57461    6.446661
    -------------+----------------------------------------------------------------
    Controls     |
            year |
              1  |   3.056005   1.000483     3.05   0.059    -.2199624    6.331973
              2  |   .1996877   2.168425     0.09   0.933    -6.900576    7.299951
              3  |  -.4826703   3.655347    -0.13   0.904    -12.45169    11.48635
              4  |   3.810754   2.938379     1.30   0.289    -5.810633    13.43214
              5  |   4.381772    1.90234     2.30   0.109    -1.847226    10.61077
              6  |   3.242194   2.370245     1.37   0.269    -4.518905    11.00329
              7  |   4.481318   3.131529     1.43   0.252     -5.77252    14.73516
              8  |   3.510442   3.332861     1.05   0.373    -7.402635    14.42352
              9  |    2.20907   3.292434     0.67   0.552    -8.571633    12.98977
             10  |   1.599485   3.603021     0.44   0.689     -10.1982    13.39717
                 |
           _cons |   23.35115   2.240143    10.42   0.002     16.01606    30.68625
    ------------------------------------------------------------------------------

909 .         * RESULT:  Negative but not statistically significant (likely due to small number of social revolutions in sample).
910 . //
911 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
912 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
913 . *       are parallel between control and treatment groups in the pretreatment period).
914 . *    Statistical significance indicates that trends are not parallel.
915 . quietly: chp9matchptrends

916 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = .59017581   p-value = .48519385

917 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
918 . //
919 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
920 . *       Statistical significance indicates that effects are observed prior to treatment.
921 . quietly: chp9matchgranger

922 . quietly: mi query

923 . quietly: local M = r(M)
```

```
924 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = .32280602   p-value = .74136846

925 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
926 . //
927 . * III) Grangerplot of lags and leads of the treatment time variable.
928 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
929 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
930 . quietly: chp9matchgrangerplot

931 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
    > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #23" , span) title("`titvar1'" "Effects over time (le
    > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

932 . graph export Robustnesstestfiles\Logfiles\robch9graph23.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph23.pdf saved as PDF format

933 .         * RESULT:  Effect achieves statistically significance in 4 out of 8 lag years.
934 . //
935 . * IV) Test for the influence of alternative treatments in surrounding periods
936 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
937 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
    > y significant.
938 . quietly: chp9matchalttreat

939 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
    > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

    Possible alternative treatment effects for  investtogdp
    ------------------------------------------------------------------------------------------------
                          Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
    ------------------------------------------------------------------------------------------------
    ATET
    treat              -11.06
                      (-2.07)
    alttreat                          -1.009          -3.530           4.817           1.401
                                     (-0.70)         (-0.70)          (0.86)          (0.29)
    ------------------------------------------------------------------------------------------------
    Controls
    treat                             -10.73          -8.710+         -15.28+         -12.11
                                     (-2.10)         (-2.99)         (-3.03)         (-2.28)
    ------------------------------------------------------------------------------------------------
    N                       231             231             231             231             231
    ------------------------------------------------------------------------------------------------
    t statistics in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

940 .         * RESULT:  No evidence for alternative treatment effects at different times outside revolutionary contention.
941 . //
942 . * V) Lagged DV test
943 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
944 . quietly: chp9matchdvlag

945 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
    > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

    Testing for the possible effect of lagged values of the dependent variable for investtogdp
    ------------------------------------------------------------------------------
                       No lag            AR 1            AR 2          AR 1,2
    ------------------------------------------------------------------------------
    ATET
    treat              -11.06          -9.367          -11.16          -8.783
                      (5.348)         (4.868)         (5.157)         (3.689)
    ------------------------------------------------------------------------------
    Controls
    laggeddv1                          0.243*                          0.357*
                                     (0.0729)                         (0.107)
    laggeddv2                                          -0.116          -0.250
                                                      (0.103)         (0.139)
    ------------------------------------------------------------------------------
    N                       231             231             231             231
    ------------------------------------------------------------------------------
    Standard errors in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

946 .         * RESULT: Evidence that AR1  processes are present, but these do not affect the statistical
947 .         *       significance of treatment.
948 .
949 .
950 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
951 . global yvar = "investtogdp"

952 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

953 . quietly{

954 . global condvar = "success==1 & urbancivic==1"

955 . //
```

```
956 . // Testing for a statistically significant "treatment" effect
957 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
958 . quietly: mi passive: replace treat=0

959 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

960 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
    > r) vce(cluster revid)

    Imputations (10):
      .........10 done

    Multiple-imputation estimates                   Imputations       =         10
                                                    Number of obs     =        759
    Group variable:
                                                    Number of groups  =          .
                                                    Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                    Average RVI       =     0.2383
                                                    Largest FMI       =     0.2777
                                                    Complete DF       =         21
    DF adjustment:   Small sample                   DF:     min       =      13.25
                                                            avg       =      16.58
    Within VCE type:       Robust                           max       =      19.25

                                  (Within VCE adjusted for 22 clusters in revid)
    ------------------------------------------------------------------------------
     investtogdp | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
    ATET         |
          treat  |
       (1 vs 0)  |  -1.066138   1.271132    -0.84   0.415    -3.781798    1.649522
    -------------+----------------------------------------------------------------
    Controls     |
            year |
              1  |  -.3441621   .4463805    -0.77   0.450    -1.277627    .5893025
              2  |  -.3716585   .5577327    -0.67   0.513    -1.537981    .7946642
              3  |  -1.254337   .9804701    -1.28   0.218    -3.318729    .8100543
              4  |  -1.410594   1.093468    -1.29   0.215    -3.720401    .8992124
              5  |   -.959926    .861624    -1.11   0.280    -2.775187    .8553348
              6  |  -.1429374   .9916764    -0.14   0.887     -2.24052    1.954645
              7  |   .2237885   1.249289     0.18   0.860     -2.44371    2.891287
              8  |   .0360772   1.175976     0.03   0.976    -2.499587    2.571742
              9  |  -.9100301   1.426703    -0.64   0.533    -3.942375    2.122314
             10  |  -.5939747   1.554257    -0.38   0.708    -3.903262    2.715313
                 |
           _cons |   23.80554   .8139492    29.25   0.000     22.10342    25.50766
    ------------------------------------------------------------------------------

961 .         * RESULT:  Negative but not statistically significant.
962 . //
963 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
964 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
965 . *       are parallel between control and treatment groups in the pretreatment period).
966 . *    Statistical significance indicates that trends are not parallel.
967 . quietly: chp9matchptrends

968 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = .44112416   p-value = .51380745

969 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
970 . //
971 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
972 . *       Statistical significance indicates that effects are observed prior to treatment.
973 . quietly: chp9matchgranger

974 . quietly: mi query

975 . quietly: local M = r(M)

976 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
    Averaged over 10 imputations: F-score = .43143596   p-value = .65520452

977 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
978 . //
979 . * III) Grangerplot of lags and leads of the treatment time variable.
980 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
981 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
982 . quietly: chp9matchgrangerplot

983 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
    > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #24" , span) title("`titvar1'" "Effects over time (le
    > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

984 . graph export Robustnesstestfiles\Logfiles\robch9graph24.pdf, replace
    file Robustnesstestfiles\Logfiles\robch9graph24.pdf saved as PDF format
```

```
985 .         * RESULT:  No statistically significant lags or leads, but negative impact appears frontloaded
986 .         *       to the immediate post-revolutionary period.
987 . //
988 . * IV) Test for the influence of alternative treatments in surrounding periods
989 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
990 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
    > y significant.
991 . quietly: chp9matchalttreat

992 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
    > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

    Possible alternative treatment effects for  investtogdp
    ------------------------------------------------------------------------------------------
                          Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
    ------------------------------------------------------------------------------------------
    ATET
    treat              -1.066
                      (-0.84)
    alttreat                          -0.855          -0.368           0.291           0.724
                                     (-0.81)         (-0.42)          (0.20)          (0.48)
    ------------------------------------------------------------------------------------------
    Controls
    treat                             -0.781          -0.821          -1.321+         -1.609*
                                     (-0.62)         (-0.60)         (-1.89)         (-2.15)
    ------------------------------------------------------------------------------------------
    N                       759             759             759             759             759
    ------------------------------------------------------------------------------------------
    t statistics in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

993 .         * RESULT:  Treatment effect turns statistically significant when controlled for additional
994 .         *       post-revolutionary treatments--not clear what this indicates.
995 . //
996 . * V) Lagged DV test
997 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
998 . quietly: chp9matchdvlag

999 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
    > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

    Testing for the possible effect of lagged values of the dependent variable for investtogdp
    ------------------------------------------------------------------------
                       No lag            AR 1            AR 2          AR 1,2
    ------------------------------------------------------------------------
    ATET
    treat              -1.066          -0.212          -0.810          -0.618
                      (1.271)         (0.763)         (1.004)         (0.768)
    ------------------------------------------------------------------------
    Controls
    laggeddv1                          0.439***                        0.545***
                                      (0.0979)                        (0.110)
    laggeddv2                                           0.131          -0.163*
                                                       (0.0805)        (0.0570)
    ------------------------------------------------------------------------
    N                       759             745             731             731
    ------------------------------------------------------------------------
    Standard errors in parentheses
    + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1000 .         * RESULT: Evidence for AR1 and AR@ processes that do not alter the lack of statistical significance of
1001 .         *       the treatment variable.
1002 .
1003 .
1004 . *================================================================
1005 . * EFFECT OF SOCIAL AND URBAN CIVIC REVOLUTIONS ON PROPERTY RIGHTS
1006 . *================================================================
1007 . * REGRESSION RESULTS WERE PRESENTED IN CHAPTER 9 DO-FILE
1008 . * Will provide graphs, test for  treatment effects, and check treatment effect
1009 . *   estimation assumptions
1010 .
1011 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
1012 . use matcheddiffindifflong.dta, clear

1013 . global yvar = "vdproprts"

1014 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

1015 . global condvar = "success==1 & leftist==1"

1016 . quietly{

1017 . quietly: chp9matchmultimp

1018 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if leftist==1 & success==1 [pweight=freqwt],
    > fe cluster(revid)

1019 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins
```

```
1020 . * Marginsplot for visualizing trends
1021 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM property rights index") ylabel(.3(.05).6 ,format(%9.2fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Successful so
     > cial" )) note("Graph #25" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymb
     > ol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

1022 . graph export Robustnesstestfiles\Logfiles\robch9graph25.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph25.pdf saved as PDF format

1023 . //
1024 . // Testing for a statistically significant "treatment" effect
1025 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
1026 . quietly: mi passive: generate treat=0

1027 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1028 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
------------------------------------------------------------------------------
   vdproprts | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |  -.0542858   .0769764    -0.71   0.505    -.2389001    .1303284
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   .0009169   .0061565     0.15   0.886    -.0138485    .0156823
          2  |   .0009169   .0061565     0.15   0.886    -.0138485    .0156823
          3  |   .0425109   .0181012     2.35   0.054    -.0009017    .0859235
          4  |   .0287255    .019223     1.49   0.182    -.0173775    .0748286
          5  |   .0333791   .0181672     1.84   0.112    -.0101917    .0769499
          6  |   .0213471   .0173396     1.23   0.261     -.020239    .0629331
          7  |   .0213868   .0173963     1.23   0.261    -.0203351    .0631087
          8  |   .0220145   .0147422     1.49   0.182    -.0133421    .0573712
          9  |   .0172299   .0164933     1.04   0.333    -.0223264    .0567862
         10  |   .0172299   .0164933     1.04   0.333    -.0223264    .0567862
             |
       _cons |   .3900302   .0361104    10.80   0.000     .3034258    .4766346
------------------------------------------------------------------------------

1029 .         * RESULT:  Negative but not statistically significant (likely due to small number of social revolutions in sample).
1030 . //
1031 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1032 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1033 . *       are parallel between control and treatment groups in the pretreatment period).
1034 . *    Statistical significance indicates that trends are not parallel.
1035 . quietly: chp9matchptrends

1036 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 2.1698266   p-value = .17896298

1037 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
1038 . //
1039 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1040 . *       Statistical significance indicates that effects are observed prior to treatment.
1041 . quietly: chp9matchgranger

1042 . quietly: mi query

1043 . quietly: local M = r(M)

1044 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 1.1934046   p-value = .35190977

1045 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1046 . //
```

```
1047 . * III) Grangerplot of lags and leads of the treatment time variable.
1048 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1049 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1050 . quietly: chp9matchgrangerplot

1051 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #26" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1052 . graph export Robustnesstestfiles\Logfiles\robch9graph26.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph26.pdf saved as PDF format

1053 .         * RESULT:  Consistently negative and statistically insignificant, but grows increasingly negative
1054 .         *       over time.
1055 . //
1056 . * IV) Test for the influence of alternative treatments in surrounding periods
1057 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1058 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
1059 . quietly: chp9matchalttreat

1060 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  vdproprts
     ------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------
     ATET
     treat              -0.0543
                        (-0.71)
     alttreat                          -0.0161        -0.00805         -0.0508         -0.0401
                                       (-1.48)         (-1.48)         (-1.91)         (-1.56)
     ------------------------------------------------------------------------------------------
     Controls
     treat                             -0.0489         -0.0489        -0.00983         -0.0242
                                       (-0.64)         (-0.64)         (-0.15)         (-0.36)
     ------------------------------------------------------------------------------------------
     N                    374             374             374             374             374
     ------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1061 .         * RESULT:  No evidence for alternative treatment effects at different times outside revolutionary contention.
1062 . //
1063 . * V) Lagged DV test
1064 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1065 . quietly: chp9matchdvlag

1066 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdproprts
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat              -0.0543        -0.00561         -0.0253         -0.0202
                       (0.0770)        (0.0558)        (0.0635)        (0.0501)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                          0.353**                          0.441**
                                       (0.0829)                         (0.114)
     laggeddv2                                           0.131*         -0.121
                                                        (0.0437)        (0.0634)
     ------------------------------------------------------------------------------
     N                    374             374             374             374
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1067 .         * RESULT: Evidence that AR1  processes are present, but these do not affect the statistical
1068 .         *       significance of treatment.
1069 .
1070 .
1071 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
1072 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

1073 . global condvar = "success==1 & urbancivic==1"

1074 . quietly{

1075 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if urbancivic==1 & success==1 [pweight=freqwt
     > ], fe cluster(revid)

1076 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1077 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM property rights index") ylabel(.5(.1).8 ,format(%9.2fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Succ urban civ
     > ic" )) note("Graph #27" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol
     > (O) msize(medlarge))

     Variables that uniquely identify margins: revny year
```

```
1078 . graph export Robustnesstestfiles\Logfiles\robch9graph27.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph27.pdf saved as PDF format

1079 . //
1080 . // Testing for a statistically significant "treatment" effect
1081 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
1082 . quietly: mi passive: replace treat=0

1083 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1084 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        946
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.2096
                                                     Largest FMI       =     0.0152
                                                     Complete DF       =         25
     DF adjustment:   Small sample                   DF:     min       =      22.99
                                                             avg       =      23.15
     Within VCE type:       Robust                           max       =      23.21

                                  (Within VCE adjusted for 26 clusters in revid)
     ------------------------------------------------------------------------------
        vdproprts | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
       (1 vs 0)   |   .0230275   .0239992     0.96   0.347    -.0266194    .0726744
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1   |   .0004607   .0008969     0.51   0.612    -.0013938    .0023151
              2   |   .0045192   .0048969     0.92   0.366    -.0056056    .0146441
              3   |   .0210911   .0178713     1.18   0.250    -.0158682    .0580505
              4   |   .0593988   .0251361     2.36   0.027     .0074213    .1113764
              5   |   .0605216   .0281395     2.15   0.042     .0023326    .1187107
              6   |   .0837977   .0344752     2.43   0.023     .0125142    .1550812
              7   |   .0834899    .034631     2.41   0.024      .011881    .1550988
              8   |   .0824875   .0345657     2.39   0.026      .011013    .1539621
              9   |   .0871674   .0345522     2.52   0.019     .0157108     .158624
             10   |   .0906053   .0351347     2.58   0.017     .0179269    .1632838
                  |
            _cons |     .57863   .0217417    26.61   0.000     .5336767    .6235832
     ------------------------------------------------------------------------------

1085 .         * RESULT:  Positive but not statistically significant.
1086 . //
1087 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1088 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1089 . *       are parallel between control and treatment groups in the pretreatment period).
1090 . *    Statistical significance indicates that trends are not parallel.
1091 . quietly: chp9matchptrends

1092 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 4.6959502   p-value = .03996395

1093 .         * RESULT: Evidence of statistically significant violation of the parallel trends assumption.
1094 . //
1095 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1096 . *       Statistical significance indicates that effects are observed prior to treatment.
1097 . quietly: chp9matchgranger

1098 . quietly: mi query

1099 . quietly: local M = r(M)

1100 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 2.4735409   p-value = .10466916

1101 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1102 . //
1103 . * III) Grangerplot of lags and leads of the treatment time variable.
1104 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1105 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1106 . quietly: chp9matchgrangerplot

1107 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #28" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))
```

```
1108 . graph export Robustnesstestfiles\Logfiles\robch9graph28.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph28.pdf saved as PDF format

1109 .         * RESULT:  Statistically significant immediately after rev, but then turns insignificant.
1110 .         *       Consistently positive.
1111 . //
1112 . * IV) Test for the influence of alternative treatments in surrounding periods
1113 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1114 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
1115 . quietly: chp9matchalttreat

1116 . esttab , drop (*.year  cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  vdproprts
     ------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------
     ATET
     treat              0.0230
                       (0.96)
     alttreat                       -0.00968+        -0.0192*          0.0189        -0.00373
                                     (-2.04)         (-2.21)           (0.83)         (-0.16)
     ------------------------------------------------------------------------------------------
     Controls
     treat                            0.0263          0.0358         0.00653          0.0258*
                                      (1.08)          (1.38)          (0.65)          (2.46)
     ------------------------------------------------------------------------------------------
     N                      946             946             946             946             946
     ------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1117 .         * RESULT:  Unclear significance of statistically significant result for Alt, t+2.
1118 . //
1119 . * V) Lagged DV test
1120 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1121 . quietly: chp9matchdvlag

1122 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdproprts
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat              0.0230          0.0128          0.0340          0.0295
                       (0.0240)        (0.0207)        (0.0238)        (0.0183)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                         0.407***                        0.483***
                                      (0.0810)                        (0.0876)
     laggeddv2                                          0.144*         -0.132**
                                                       (0.0584)        (0.0409)
     ------------------------------------------------------------------------------
     N                      946             930             916             914
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1123 .         * RESULT: Evidence for AR1  and AR2 processes that do not alter the lack of statistical significance of the treatment variable
     > .
1124 .
1125 .
1126 . *==================================
1127 . * EFFECT OF REVOLUTION ON INFLATION
1128 . *==================================
1129 . * REGRESSION RESULTS WERE PRESENTED IN CHAPTER 9 DO-FILE
1130 . * Will provide graphs, test for treatment effects, and check treatment effect
1131 . *   estimation assumptions
1132 .
1133 . // IMPACT OF REVOLUTIONARY SUCCESSS/FAILURE ON INFLATION
1134 . use fullsamplediffindifflong.dta, clear

1135 . quietly: generate anninflatwi = anninflat2   // Must alter variable name due to reshaping of data during multiple imputation

1136 . global yvar = "anninflatwi"

1137 . quietly: label var anninflatwi "Annual inflation (windsorized)"

1138 . quietly{

1139 . quietly: chp9fullmultimp

1140 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.success##ib(2).year, fe

1141 . quietly: mimrgns, at(success=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins
```

```
1142 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Percent inflation") ylabel(0(10)40 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Failed" 2 "Successful" )) note("Grap
     > h #29" , span) title("`titvar1'" "Avg marginal predictions, all revs") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol(O) msi
     > ze(medlarge))

     Variables that uniquely identify margins: success year

1143 . graph export Robustnesstestfiles\Logfiles\robch9graph29.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph29.pdf saved as PDF format

1144 .
1145 . // SUCCESSFUL SOCIAL VS. SUCCESSFUL URBAN CIVIC
1146 . use simplediffindifflong.dta, clear

1147 . generate anninflatwi = anninflat2
     (120 missing values generated)

1148 . global yvar = "anninflatwi"

1149 . quietly: label var anninflatwi "Annual inflation (windsorized)"

1150 . quietly{

1151 . quietly: chp9simpmultimp

1152 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.leftist##ib(2).year if success==1, re

1153 . quietly: mimrgns, at(leftist=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1154 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Percent inflation") ylabel(0(10)80 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Urban civic" 2 "Social" )) note("Gra
     > ph #30" , span) title("`titvar1'" "Avg marginal predictions for successful revs") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msy
     > mbol(O) msize(medlarge))

     Variables that uniquely identify margins: leftist year

1155 . graph export Robustnesstestfiles\Logfiles\robch9graph30.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph30.pdf saved as PDF format

1156 .
1157 . // FAILED SOCIAL VS. FAILED URBAN CIVIC
1158 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.leftist##ib(2).year if success==0, re

1159 . quietly: mimrgns, at(leftist=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1160 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Percent inflation") ylabel(0(10)40 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Urban civic" 2 "Social" )) note("Gra
     > ph #31" , span) title("`titvar1'" "Avg marginal predictions for failed revs") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol
     > (O) msize(medlarge))

     Variables that uniquely identify margins: leftist year

1161 . graph export Robustnesstestfiles\Logfiles\robch9graph31.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph31.pdf saved as PDF format

1162 .
1163 . // SUCCESSFUL URBAN CIVIC WITH MATCHED COUNTERPARTS
1164 . use matcheddiffindifflong.dta, clear

1165 . generate anninflatwi = anninflat2
     (434 missing values generated)

1166 . global yvar = "anninflatwi"

1167 . label var anninflatwi "Annual inflation (windsorized)"

1168 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

1169 . quietly{

1170 . global condvar = "success==1 & urbancivic==1"

1171 . quietly: chp9matchmultimp

1172 . quietly: mi estimate, post dots saving(miest, replace): xtreg $yvar i.revny##ib(2).year if success==1 & urbancivic==1 [pweight=freqwt]
     > , cluster(revid) fe

1173 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1174 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Percent inflation") ylabel(0(10)50 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Succ urban civic" )) not
     > e("Graph #32" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol(O) msize(
     > medlarge))

     Variables that uniquely identify margins: revny year

1175 . graph export Robustnesstestfiles\Logfiles\robch9graph32.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph32.pdf saved as PDF format
```

```
1176 . //
1177 . // Testing for a statistically significant "treatment" effect
1178 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
1179 . quietly: mi passive: generate treat=0

1180 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1181 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        858
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.2310
                                                     Largest FMI       =     0.0989
                                                     Complete DF       =         24
     DF adjustment:   Small sample                   DF:     min       =      19.98
                                                             avg       =      21.56
     Within VCE type:       Robust                           max       =      22.22

                                    (Within VCE adjusted for 25 clusters in revid)
     ------------------------------------------------------------------------------
      anninflatwi | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |   3.174687   10.02179     0.32   0.755    -17.68265    24.03203
     -------------+----------------------------------------------------------------
     Controls     |
             year |
               1  |  -.3773689   1.554393    -0.24   0.810    -3.599115    2.844377
               2  |   4.496781   5.058936     0.89   0.384    -5.988731    14.98229
               3  |    10.1502   6.168171     1.65   0.115       -2.667    22.96739
               4  |   18.11392   8.760605     2.07   0.051    -.0724461    36.30028
               5  |   11.10442   7.571551     1.47   0.157    -4.604267     26.8131
               6  |   15.60115   9.068531     1.72   0.100    -3.214813    34.41711
               7  |   14.90976   8.886892     1.68   0.108    -3.522611    33.34214
               8  |   7.602312   9.628911     0.79   0.438    -12.38299    27.58761
               9  |   8.824327   9.202398     0.96   0.348    -10.30532    27.95397
              10  |   5.724142   7.882034     0.73   0.476    -10.71875    22.16704
                  |
            _cons |   11.39865   4.339068     2.63   0.015      2.40519    20.39211
     ------------------------------------------------------------------------------

1182 .         * RESULT:  Positive but not statistically significant.
1183 . //
1184 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1185 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1186 . *       are parallel between control and treatment groups in the pretreatment period).
1187 . *    Statistical significance indicates that trends are not parallel.
1188 . quietly: chp9matchptrends

1189 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 1.988855   p-value = .17129023

1190 .         * RESULT: No statistically significant evidence for a violation of the parallel trends assumption.
1191 . //
1192 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1193 . *       Statistical significance indicates that effects are observed prior to treatment.
1194 . quietly: chp9matchgranger

1195 . quietly: mi query

1196 . quietly: local M = r(M)

1197 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 1.0215772   p-value = .37515599

1198 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1199 . //
1200 . * III) Grangerplot of lags and leads of the treatment time variable.
1201 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1202 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1203 . quietly: chp9matchgrangerplot

1204 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #33" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1205 . graph export Robustnesstestfiles\Logfiles\robch9graph33.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph33.pdf saved as PDF format
```

```
1206 .         * RESULT:  Consistently positive and statistically insignificant.
1207 . //
1208 . * IV) Test for the influence of alternative treatments in surrounding periods
1209 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1210 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
1211 . quietly: chp9matchalttreat

1212 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  anninflatwi
     ------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------
     ATET
     treat                3.175
                         (0.32)
     alttreat                          -6.724          -11.17           11.50          -3.817
                                      (-1.42)         (-1.36)          (1.28)         (-0.60)
     ------------------------------------------------------------------------------------------
     Controls
     treat                              5.416           10.62          -6.886           6.037
                                       (0.52)          (0.82)         (-0.85)          (0.56)
     ------------------------------------------------------------------------------------------
     N                    858             858             858             858             858
     ------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1213 .         * RESULT:  No evidence of alternative treatments at play.
1214 . //
1215 . * V) Lagged DV test
1216 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1217 . quietly: chp9matchdvlag

1218 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for anninflatwi
     ------------------------------------------------------------------------
                       No lag           AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------
     ATET
     treat                3.175           6.955           7.173           8.432
                         (10.02)         (6.605)         (9.108)         (6.721)
     ------------------------------------------------------------------------
     Controls
     laggeddv1                          0.520***                        0.610***
                                       (0.0678)                        (0.122)
     laggeddv2                                          0.145***        -0.181*
                                                       (0.0291)        (0.0861)
     ------------------------------------------------------------------------
     N                    858             843             828             828
     ------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1219 .         * RESULT: Evidence for AR1  and AR2 processes that do not alter the lack of statistical significance of the treatment variable
     > .
1220 .
1221 . *=========================================
1222 . * EFFECT OF REVOLUTION ON GOVERNMENT DEBT
1223 . *=========================================
1224 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE
1225 . * Will provide graphs
1226 .
1227 . // IMPACT OF REVOLUTIONARY SUCCESSS/FAILURE ON GOVERNMENT DEBT
1228 . clear

1229 . use fullsamplediffindifflong.dta, clear

1230 . global yvar = "debttogdp"

1231 . quietly{

1232 . quietly: chp9fullmultimp

1233 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.success##ib(2).year, fe

1234 . quietly: mimrgns, at(success=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1235 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Debt to GDP, percent") ylabel(40(10)70 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Failed" 2 "Successful" )) note("
     > Graph #34" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol(O) msize(med
     > large))

     Variables that uniquely identify margins: success year
```

```
1236 . graph export Robustnesstestfiles\Logfiles\robch9graph34.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph34.pdf saved as PDF format

1237 .
1238 . // SUCCESSFUL SOCIAL VS. SUCCESSFUL URBAN CIVIC
1239 . use simplediffindifflong.dta, clear

1240 . global yvar = "debttogdp"

1241 . quietly{

1242 . quietly: chp9simpmultimp

1243 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.leftist##ib(2).year if success==1, fe vce(robust)

1244 . quietly: mimrgns, at(leftist=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1245 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Debt to GDP, percent") ylabel(40(10)100 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Urban civic" 2 "Social" )) note
     > ("Graph #35" , span) title("`titvar1'" "Avg marginal predictions for successful revs") plot1opts(msymbol(Oh) msize(medlarge)) plot2opt
     > s(msymbol(O) msize(medlarge))

     Variables that uniquely identify margins: leftist year

1246 . graph export Robustnesstestfiles\Logfiles\robch9graph35.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph35.pdf saved as PDF format

1247 .
1248 . // FAILED SOCIAL VS. FAILED URBAN CIVIC
1249 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.leftist##ib(2).year if success==0, fe vce(robust)

1250 . quietly: mimrgns, at(leftist=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1251 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Debt to GDP, percent") ylabel(30(5)50 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Urban civic" 2 "Social" )) note("
     > Graph #36" , span) title("`titvar1'" "Avg marginal predictions for failed revs") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msym
     > bol(O) msize(medlarge))

     Variables that uniquely identify margins: leftist year

1252 . graph export Robustnesstestfiles\Logfiles\robch9graph36.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph36.pdf saved as PDF format

1253 .
1254 .
1255 . *=========================================================
1256 . * EFFECT OF REVOLUTION ON V-DEM EQUALITY OF RESOURCES INDEX
1257 . *=========================================================
1258 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE, AND VISUAL RESULTS
1259 . *       PRESENTED IN FIGURE 9.8
1260 . * Will test for  treatment effects, and check treatment effect estimation assumptions
1261 .
1262 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
1263 .  use matcheddiffindifflong.dta, clear

1264 . global yvar = "vdeqdr"

1265 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

1266 . quietly{

1267 . global condvar = "success==1 & leftist==1"

1268 . quietly: chp9matchmultimp

1269 . //
1270 . // Testing for a statistically significant "treatment" effect
1271 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
1272 . quietly: mi passive: generate treat=0

1273 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1274 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55
```

```
                                (Within VCE adjusted for 9 clusters in revid)
------------------------------------------------------------------------------
      vdeqdr | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |   .1954582    .082434     2.37   0.052    -.0022451    .3931616
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   .0018488   .0020534     0.90   0.400     -.003076    .0067736
          2  |   .0028948   .0021679     1.34   0.226    -.0023045    .0080941
          3  |  -.0009623    .028201    -0.03   0.974    -.0685973    .0666728
          4  |   .0421254   .0203574     2.07   0.080    -.0066983    .0909491
          5  |   .0458959   .0220717     2.08   0.079    -.0070392     .098831
          6  |   .0496799   .0215776     2.30   0.057    -.0020702      .10143
          7  |   .0542386   .0218146     2.49   0.044     .0019201    .1065571
          8  |   .0594577   .0215256     2.76   0.030     .0078323    .1110832
          9  |   .0598052   .0217658     2.75   0.031     .0076038    .1120067
         10  |   .0613626   .0210369     2.92   0.024     .0109092     .111816
             |
       _cons |   .2159474   .0324602     6.65   0.000     .1380973    .2937974
------------------------------------------------------------------------------

1275 .         * RESULT:  Positive and marginally significant at the .10 level.
1276 . //
1277 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1278 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1279 . *       are parallel between control and treatment groups in the pretreatment period).
1280 . *    Statistical significance indicates that trends are not parallel.
1281 . quietly: chp9matchptrends

1282 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 1.7731905   p-value = .21967856

1283 .         * RESULT: No statistically significant evidence of violation of parallel trends assumption
1284 . //
1285 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1286 . *       Statistical significance indicates that effects are observed prior to treatment.
1287 . quietly: chp9matchgranger

1288 . quietly: mi query

1289 . quietly: local M = r(M)

1290 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 1.9933121   p-value = .19841403

1291 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1292 . //
1293 . * III) Grangerplot of lags and leads of the treatment time variable.
1294 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1295 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1296 . quietly: chp9matchgrangerplot

1297 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #37" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1298 . graph export Robustnesstestfiles\Logfiles\robch9graph37.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph37.pdf saved as PDF format

1299 .         * RESULT:  Lags are consistently positive and statistically insignificant.
1300 . //
1301 . * IV) Test for the influence of alternative treatments in surrounding periods
1302 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1303 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
1304 . quietly: chp9matchalttreat

1305 . esttab , drop (*.year  cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdeqdr
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat               0.195+
                   (2.37)
alttreat                         -0.00474        -0.00394          0.0690          0.0314
                                  (-1.13)         (-1.63)          (1.36)          (1.15)
------------------------------------------------------------------------------------------------
Controls
treat                              0.197+          0.198+          0.135           0.172+
                                  (2.39)          (2.40)          (1.74)          (2.21)
------------------------------------------------------------------------------------------------
N                     374             374             374             374             374
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
1306 .         * RESULT:  Alternative treatment at t+1 turns treatment insignificant--points to critical processes after revolutionary conten
     > tion.
1307 . //
1308 . * V) Lagged DV test
1309 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1310 . quietly: chp9matchdvlag

1311 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdeqdr
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat               0.195+          0.130+          0.173+          0.129+
                       (0.0824)        (0.0548)        (0.0725)        (0.0551)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                           0.441***                        0.519***
                                        (0.0698)                        (0.0892)
     laggeddv2                                            0.213**        -0.0997*
                                                         (0.0561)        (0.0411)
     ------------------------------------------------------------------------------
     N                     374             374             374             374
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1312 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical significance of treatment.
1313 .
1314 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
1315 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

1316 . quietly{

1317 . global condvar = "success==1 & urbancivic==1"

1318 . //
1319 . // Testing for a statistically significant "treatment" effect
1320 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
1321 . quietly: mi passive: replace treat=0

1322 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1323 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        946
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.2143
                                                     Largest FMI       =     0.0531
                                                     Complete DF       =         25
     DF adjustment:   Small sample                   DF:     min       =      22.07
                                                             avg       =      22.91
     Within VCE type:       Robust                           max       =      23.21

                                    (Within VCE adjusted for 26 clusters in revid)
     ------------------------------------------------------------------------------
           vdeqdr | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
            treat |
       (1 vs 0)  |   .0449247    .016857     2.67   0.014     .0100503    .0797992
     -------------+----------------------------------------------------------------
     Controls     |
             year |
               1  |   .0034319   .0011693     2.94   0.007     .0010143    .0058495
               2  |   .0058083   .0019069     3.05   0.006     .0018656     .009751
               3  |  -.0123101   .0070578    -1.74   0.095    -.0269155    .0022952
               4  |   .0023478    .009949     0.24   0.816    -.0182314    .0229271
               5  |  -.0007613   .0098518    -0.08   0.939    -.0211429    .0196203
               6  |  -.0087407   .0101547    -0.86   0.398    -.0297432    .0122618
               7  |  -.0090711   .0102782    -0.88   0.387    -.0303314    .0121892
               8  |  -.0095451   .0101232    -0.94   0.356     -.030496    .0114058
               9  |  -.0112498   .0104682    -1.07   0.294    -.0329334    .0104338
              10  |  -.0068899   .0106496    -0.65   0.524    -.0289717    .0151919
                  |
             cons |    .496845   .0072093    68.92   0.000      .481939    .5117509
     ------------------------------------------------------------------------------
```

```
. *         * RESULT:  Positive and statistically significant at the .05 level.
. //
. // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
. * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
. *       are parallel between control and treatment groups in the pretreatment period).
. *    Statistical significance indicates that trends are not parallel.
. quietly: chp9matchptrends

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 1.5197586   p-value = .22912345

. *         * RESULT: No evidence of violation of the parallel trends assumption.
. //
. * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
. *       Statistical significance indicates that effects are observed prior to treatment.
. quietly: chp9matchgranger

. quietly: mi query

. quietly: local M = r(M)

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .78658247   p-value = .46634687

. *         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
. //
. * III) Grangerplot of lags and leads of the treatment time variable.
. *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
. *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
. coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #38" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

. graph export Robustnesstestfiles\Logfiles\robch9graph38.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph38.pdf saved as PDF format

. *         * RESULT:  Lags are consistently positive, relatively stable, and statistically significant.
. //
. * IV) Test for the influence of alternative treatments in surrounding periods
. *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
. *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
. quietly: chp9matchalttreat

. esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdeqdr
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat              0.0449*
                   (2.67)
alttreat                          -0.00247        -0.00524          0.0256          0.0125
                                   (-1.01)         (-1.25)          (1.70)          (0.83)
------------------------------------------------------------------------------------------------
Controls
treat                              0.0457*         0.0484**        0.0225+         0.0356*
                                   (2.74)          (2.99)          (2.00)          (2.66)
------------------------------------------------------------------------------------------------
N                     946             946             946             946             946
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

. *         * RESULT:  Alt treatment at t+1 turns treatment marginally significant; points to critical
. *         *       processes occurring the year after revolution.
. //
. * V) Lagged DV test
. *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
. quietly: chp9matchdvlag

. esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for vdeqdr
------------------------------------------------------------------------------
                    No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat               0.0449*         0.0431**        0.0501**        0.0438**
                  (0.0169)        (0.0144)        (0.0163)        (0.0139)
------------------------------------------------------------------------------
Controls
laggeddv1                           0.219***                        0.261***
                                   (0.0460)                        (0.0478)
laggeddv2                                           0.0807*        -0.0605*
                                                   (0.0336)        (0.0282)
------------------------------------------------------------------------------
N                     946             930             916             914
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
1362 .         * RESULT: Evidence for AR1 and AR2 processes that do not alter the statistical significance of the treatment variable.
1363 .
1364 .
1365 . *========================================
1366 . * EFFECT OF REVOLUTION ON HEALTH EQUALITY
1367 . *========================================
1368 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE
1369 . * Will provide graphs, test for treatment effects, and check treatment effect
1370 . *   estimation assumptions
1371 .
1372 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
1373 . use matcheddiffindifflong.dta, clear

1374 . global yvar = "vdhealtheq"

1375 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

1376 . global condvar = "success==1 & leftist==1"

1377 . quietly{

1378 . quietly: chp9matchmultimp

1379 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if leftist==1 & success==1 [pweight=freqwt],
     > fe cluster(revid)

1380 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1381 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM health equality index") ylabel(-1.4(.2)0 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Successful so
     > cial" )) note("Graph #39" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymb
     > ol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

1382 . graph export Robustnesstestfiles\Logfiles\robch9graph39.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph39.pdf saved as PDF format

1383 . //
1384 . // Testing for a statistically significant "treatment" effect
1385 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
1386 . quietly: mi passive: generate treat=0

1387 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1388 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
       vdhealtheq | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
          treat   |
       (1 vs 0)  |    .930614   .4109911     2.26   0.061    -.0550756    1.916304
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1  |   .0072684    .007378     0.99   0.360    -.0104264    .0249632
              2  |   .0288266    .015291     1.89   0.104    -.0078461    .0654993
              3  |  -.0934631   .1056376    -0.88   0.408    -.3468161      .15989
              4  |    .147788    .085315     1.73   0.130     -.056825    .3524011
              5  |   .1723262   .0828276     2.08   0.079    -.0263212    .3709736
              6  |   .1840535   .0820667     2.24   0.062     -.012769     .380876
              7  |   .1840535   .0820667     2.24   0.062     -.012769     .380876
              8  |   .2136061   .0917733     2.33   0.055    -.0064959    .4337082
              9  |   .2236605   .0939267     2.38   0.051    -.0016062    .4489271
             10  |    .227542   .0954993     2.38   0.051    -.0014961    .4565801
                 |
            cons |  -1.298761   .1593462    -8.15   0.000    -1.680925   -.9165974
     ------------------------------------------------------------------------------
```

```
1389 .         * RESULT:  Positive and marginally significant at the .10 level.
1390 . //
1391 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1392 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1393 . *       are parallel between control and treatment groups in the pretreatment period).
1394 . *    Statistical significance indicates that trends are not parallel.
1395 . quietly: chp9matchptrends

1396 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 3.5343539   p-value = .09690735

1397 .         * RESULT: Statistically significant evidence (at the .10 level) of violation of parallel trends assumption
1398 . //
1399 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1400 . *       Statistical significance indicates that effects are observed prior to treatment.
1401 . quietly: chp9matchgranger

1402 . quietly: mi query

1403 . quietly: local M = r(M)

1404 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 1.8604973   p-value = .21702116

1405 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1406 . //
1407 . * III) Grangerplot of lags and leads of the treatment time variable.
1408 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1409 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1410 . quietly: chp9matchgrangerplot

1411 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #40" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1412 . graph export Robustnesstestfiles\Logfiles\robch9graph40.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph40.pdf saved as PDF format

1413 .         * RESULT:  Lags are consistently positive and statistically significant.
1414 . //
1415 . * IV) Test for the influence of alternative treatments in surrounding periods
1416 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1417 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
1418 . quietly: chp9matchalttreat

1419 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdhealtheq
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat               0.931+
                   (2.26)
alttreat                          -0.0361         -0.0504           0.362           0.163
                                  (-1.91)         (-1.72)          (1.59)          (1.52)
------------------------------------------------------------------------------------------------
Controls
treat                               0.943+          0.964+          0.614           0.808+
                                   (2.29)          (2.36)          (1.76)          (2.11)
------------------------------------------------------------------------------------------------
N                     374             374             374             374             374
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1420 .         * RESULT:  Alternative treatment at t+1 turns treatment insignificant--points to critical processes after revolutionary conten
> tion.
1421 . //
1422 . * V) Lagged DV test
1423 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1424 . quietly: chp9matchdvlag

1425 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for vdhealtheq
------------------------------------------------------------------------------
                   No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat               0.931+          0.625+          0.849+          0.626*
                   (0.411)         (0.270)         (0.369)         (0.260)
------------------------------------------------------------------------------
Controls
laggeddv1                           0.417**                         0.549**
                                   (0.102)                         (0.120)
laggeddv2                                            0.146         -0.175**
                                                    (0.0968)        (0.0382)
------------------------------------------------------------------------------
N                     374             374             374             374
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
1426 .         * RESULT: Evidence for AR1 and (possibly) AR2 processes that turn treatment even more statistically significant.
1427 .
1428 .
1429 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
1430 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

1431 . global condvar = "success==1 & urbancivic==1"

1432 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if urbancivic==1 & success==1 [pweight=freqwt
     > ], fe cluster(revid)

1433 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1434 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM health equality index") ylabel(-.3(.1).3 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Succ urban ci
     > vic" )) note("Graph #41" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbo
     > l(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

1435 . graph export Robustnesstestfiles\Logfiles\robch9graph41.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph41.pdf saved as PDF format

1436 . //
1437 . // Testing for a statistically significant "treatment" effect
1438 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
1439 . quietly: mi passive: replace treat=0

1440 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1441 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        946
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.2333
                                                     Largest FMI       =     0.0292
                                                     Complete DF       =         25
     DF adjustment:   Small sample                   DF:     min       =      22.67
                                                             avg       =      23.06
     Within VCE type:       Robust                           max       =      23.21

                                    (Within VCE adjusted for 26 clusters in revid)
     ------------------------------------------------------------------------------
       vdhealtheq | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |   .2186875   .1105667     1.98   0.060     -.010011    .4473859
     -------------+----------------------------------------------------------------
     Controls     |
             year |
               1  |   -.000353   .0018064    -0.20   0.847    -.0040878    .0033819
               2  |   .0100541   .0061791     1.63   0.117    -.0027219    .0228301
               3  |  -.1042543   .0497285    -2.10   0.047    -.2071238   -.0013849
               4  |  -.0593908   .0714296    -0.83   0.414    -.2071136     .088332
               5  |  -.0750173   .0645047    -1.16   0.257    -.2084434    .0584088
               6  |  -.0971696   .0740666    -1.31   0.202    -.2503346    .0559953
               7  |  -.0821199   .0775161    -1.06   0.300    -.2424308    .0781909
               8  |  -.1025053   .0748018    -1.37   0.184    -.2572302    .0522195
               9  |  -.1072965   .0762166    -1.41   0.173    -.2650004    .0504074
              10  |  -.0980903   .0756924    -1.30   0.208    -.2547993    .0586186
                  |
            _cons |  -.0326754   .0458504    -0.71   0.483    -.1274758     .062125
     ------------------------------------------------------------------------------

1442 .         * RESULT:  Positive and marginally significant at the .10 level.
1443 . //
1444 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1445 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1446 . *       are parallel between control and treatment groups in the pretreatment period).
1447 . *    Statistical significance indicates that trends are not parallel.
1448 . quietly: chp9matchptrends

1449 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 2.2577046   p-value = .14547851

1450 .         * RESULT: No statistically significant evidence for a violation of the parallel trends assumption.
1451 . //
1452 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
```

```
1453 . *       Statistical significance indicates that effects are observed prior to treatment.
1454 . quietly: chp9matchgranger

1455 . quietly: mi query

1456 . quietly: local M = r(M)

1457 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 1.1854704   p-value = .32220223

1458 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1459 . //
1460 . * III) Grangerplot of lags and leads of the treatment time variable.
1461 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1462 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1463 . quietly: chp9matchgrangerplot

1464 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #42" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1465 . graph export Robustnesstestfiles\Logfiles\robch9graph42.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph42.pdf saved as PDF format

1466 .         * RESULT:  Consistently positive, statistically significant from lags 1-5, effect eventually grows insignificant.
1467 . //
1468 . * IV) Test for the influence of alternative treatments in surrounding periods
1469 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1470 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
1471 . quietly: chp9matchalttreat

1472 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdhealtheq
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat              0.219+
                  (1.98)
alttreat                          -0.0155         -0.0324           0.200*          0.113
                                  (-1.44)         (-1.52)          (2.31)          (1.27)
------------------------------------------------------------------------------------------------
Controls
treat                               0.224+          0.240*         0.0433           0.134
                                   (2.04)          (2.21)          (0.54)          (1.46)
------------------------------------------------------------------------------------------------
N                     946             946             946             946             946
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1473 .         * RESULT:  Alt treatment at t+1 statistically significant and turns treatment insignificant. Points to
1474 .         *       critical processes in the wake of revolution.
1475 . //
1476 . * V) Lagged DV test
1477 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1478 . quietly: chp9matchdvlag

1479 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for vdhealtheq
--------------------------------------------------------------------------------
                   No lag            AR 1            AR 2          AR 1,2
--------------------------------------------------------------------------------
ATET
treat               0.219+          0.197*          0.228+          0.193*
                   (0.111)         (0.0944)         (0.113)         (0.0926)
--------------------------------------------------------------------------------
Controls
laggeddv1                           0.269***                        0.334***
                                   (0.0544)                        (0.0659)
laggeddv2                                            0.0879*        -0.0939**
                                                    (0.0315)        (0.0256)
--------------------------------------------------------------------------------
N                     946             930             916             914
--------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1480 .         * RESULT: Evidence for AR1  and AR2 processes that turn treatment even more statistically significant.
1481 .
1482 .
1483 . *=============================================
1484 . * EFFECT OF REVOLUTION ON EDUCATIONAL EQUALITY
1485 . *=============================================
```

```
1486 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE
1487 . * Will provide graphs, test for treatment effects, and check treatment effect
1488 . *   estimation assumptions
1489 .
1490 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
1491 . use matcheddiffindifflong.dta, clear

1492 . global yvar = "vdeduceq"

1493 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

1494 . global condvar = "success==1 & leftist==1"

1495 . quietly{

1496 . quietly: chp9matchmultimp

1497 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if leftist==1 & success==1 [pweight=freqwt],
     > fe cluster(revid)

1498 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1499 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM educational equality index") ylabel(-2(.2)0 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Successful
     >  social" )) note("Graph #43" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(ms
     > ymbol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

1500 . graph export Robustnesstestfiles\Logfiles\robch9graph43.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph43.pdf saved as PDF format

1501 . //
1502 . // Testing for a statistically significant "treatment" effect
1503 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
1504 . quietly: mi passive: generate treat=0

1505 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1506 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
         vdeduceq | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |   .7050399   .4169732     1.69   0.138    -.2949966    1.705076
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1   |   .0000317   .0196673     0.00   0.999    -.0471368    .0472002
              2   |   .0029658   .0214164     0.14   0.894    -.0483976    .0543292
              3   |   .1968361   .2290684     0.86   0.421     -.352544    .7462161
              4   |   .3869142    .223011     1.73   0.129    -.1479384    .9217667
              5   |   .4014597   .2230908     1.80   0.118    -.1335841    .9365035
              6   |   .4291951   .2210725     1.94   0.096    -.1010083    .9593985
              7   |   .4762078    .219662     2.17   0.070    -.0506128    1.003028
              8   |   .4980796   .2119824     2.35   0.054    -.0103228    1.006482
              9   |   .5086447   .2174679     2.34   0.054    -.0129136    1.030203
             10   |   .5111758   .2166347     2.36   0.053    -.0083842    1.030736
                  |
           _cons  |  -1.546153   .1839792    -8.40   0.000    -1.987394   -1.104911
     ------------------------------------------------------------------------------

1507 .         * RESULT:  Positive but statistically insignificant.
1508 . //
1509 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1510 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1511 . *       are parallel between control and treatment groups in the pretreatment period).
```

```
1512 . *    Statistical significance indicates that trends are not parallel.
1513 . quietly: chp9matchptrends

1514 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .01907126   p-value = .89357514

1515 .         * RESULT: No evidence of violation of parallel trends assumption
1516 . //
1517 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1518 . *       Statistical significance indicates that effects are observed prior to treatment.
1519 . quietly: chp9matchgranger

1520 . quietly: mi query

1521 . quietly: local M = r(M)

1522 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .6776087   p-value = .53474214

1523 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1524 . //
1525 . * III) Grangerplot of lags and leads of the treatment time variable.
1526 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1527 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1528 . quietly: chp9matchgrangerplot

1529 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #44" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1530 . graph export Robustnesstestfiles\Logfiles\robch9graph44.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph44.pdf saved as PDF format

1531 .         * RESULT:  Lags are consistently positive but statistically insignificant.
1532 . //
1533 . * IV) Test for the influence of alternative treatments in surrounding periods
1534 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1535 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
1536 . quietly: chp9matchalttreat

1537 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdeduceq
------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------
ATET
treat               0.705
                   (1.69)
alttreat                        -0.00300        -0.00590           0.190          0.0946
                                 (-0.07)         (-0.25)          (0.98)          (0.80)
------------------------------------------------------------------------------------------
Controls
treat                              0.706           0.709           0.539           0.634
                                  (1.69)          (1.70)          (1.42)          (1.58)
------------------------------------------------------------------------------------------
N                     374             374             374             374             374
------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1538 .         * RESULT:  No evidence that alternative treatments at work.
1539 . //
1540 . * V) Lagged DV test
1541 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1542 . quietly: chp9matchdvlag

1543 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for vdeduceq
------------------------------------------------------------------------------
                    No lag          AR 1           AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat               0.705          0.439          0.614          0.441
                   (0.417)         (0.257)        (0.364)        (0.257)
------------------------------------------------------------------------------
Controls
laggeddv1                          0.460***                      0.562***
                                  (0.0672)                      (0.0646)
laggeddv2                                          0.202*        -0.136**
                                                  (0.0726)       (0.0317)
------------------------------------------------------------------------------
N                     374             374             374             374
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
1544 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical insignificance of treatment.
1545 .
1546 .
1547 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
1548 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

1549 . global condvar = "success==1 & urbancivic==1"

1550 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if urbancivic==1 & success==1 [pweight=freqwt
     > ], fe cluster(revid)

1551 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1552 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM educational equality index") ylabel(-.3(.1).3 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Succ urb
     > an civic" )) note("Graph #45" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(m
     > symbol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

1553 . graph export Robustnesstestfiles\Logfiles\robch9graph45.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph45.pdf saved as PDF format

1554 . //
1555 . // Testing for a statistically significant "treatment" effect
1556 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
1557 . quietly: mi passive: replace treat=0

1558 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1559 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        946
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.1683
                                                     Largest FMI       =     0.0376
                                                     Complete DF       =         25
     DF adjustment:   Small sample                   DF:     min       =      22.46
                                                             avg       =      22.94
     Within VCE type:       Robust                           max       =      23.21

                                    (Within VCE adjusted for 26 clusters in revid)
     ------------------------------------------------------------------------------
         vdeduceq | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |   .1250922   .0912051     1.37   0.183     -.063601    .3137853
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1  |   .0042508   .0063544     0.67   0.510    -.0088875    .0173891
              2  |   .0114077   .0118436     0.96   0.345    -.0130801    .0358955
              3  |  -.0358399   .0327859    -1.09   0.286    -.1037126    .0320328
              4  |   .0410972   .0484447     0.85   0.405    -.0591222    .1413166
              5  |   .0110738   .0511981     0.22   0.831    -.0948655    .1170132
              6  |  -.0225482   .0581089    -0.39   0.702    -.1427326    .0976362
              7  |  -.0390884   .0566655    -0.69   0.497    -.1563091    .0781322
              8  |  -.0388183   .0626803    -0.62   0.542    -.1685193    .0908826
              9  |  -.0343482   .0640558    -0.54   0.597    -.1669689    .0982725
             10  |  -.0118746    .065065    -0.18   0.857    -.1466501    .1229009
                 |
           _cons |  -.0072064   .0394942    -0.18   0.857    -.0888647     .074452
     ------------------------------------------------------------------------------

1560 .         * RESULT:  Positive but statistically insignificant.
1561 . //
1562 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1563 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1564 . *       are parallel between control and treatment groups in the pretreatment period).
1565 . *    Statistical significance indicates that trends are not parallel.
1566 . quietly: chp9matchptrends

1567 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 4.1477348   p-value = .05241269

1568 .         * RESULT: Marginally significant evidence (at the .10 level) for violation of the parallel trends assumption.
1569 . //
1570 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
```

```
. *       Statistical significance indicates that effects are observed prior to treatment.
. quietly: chp9matchgranger

. quietly: mi query

. quietly: local M = r(M)

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 2.2446848   p-value = .1268912

.         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
. //
. * III) Grangerplot of lags and leads of the treatment time variable.
. *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
. *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
. quietly: chp9matchgrangerplot

. coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #46" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

. graph export Robustnesstestfiles\Logfiles\robch9graph46.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph46.pdf saved as PDF format

.         * RESULT:  Consistently positive; leads 1 and 2 and lags 1-3 statistically significant, but effect becomes
.         *       insignificant over time.
. //
. * IV) Test for the influence of alternative treatments in surrounding periods
. *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
. *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
. quietly: chp9matchalttreat

. esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdeduceq
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat               0.125
                   (1.37)
alttreat                         -0.0333+        -0.0617*          0.110          0.0587
                                 (-1.76)         (-2.11)          (1.50)          (0.68)
------------------------------------------------------------------------------------------------
Controls
treat                              0.136           0.166+         0.0290          0.0811
                                  (1.54)          (2.06)          (0.37)          (0.97)
------------------------------------------------------------------------------------------------
N                     946             946             946             946             946
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

.         * RESULT:  Evidence for potential pre-revolutionary "treatments" that turn treatment marginally significant.
.         *       May be due to violation of parallel trends assumption.
. //
. * V) Lagged DV test
. *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
. quietly: chp9matchdvlag

. esttab , se drop(*.year  cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for vdeduceq
------------------------------------------------------------------------------
                    No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat                0.125           0.115           0.130           0.117
                   (0.0912)        (0.0695)        (0.0779)        (0.0693)
------------------------------------------------------------------------------
Controls
laggeddv1                            0.229***                        0.249***
                                    (0.0535)                        (0.0482)
laggeddv2                                             0.0985*        -0.0375
                                                     (0.0404)        (0.0276)
------------------------------------------------------------------------------
N                     946             930             916             914
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

.         * RESULT: Evidence for AR1 processes that do not affect the statistical insignificance of treatment.
.
.
. *=========================================
. * EFFECT OF REVOLUTION ON INFANT MORTALITY
```

```
1604 . *=========================================
1605 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE
1606 . * Will provide graphs, test for treatment effects, and check treatment effect
1607 . *   estimation assumptions
1608 .
1609 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
1610 . use matcheddiffindifflong.dta, clear

1611 . global yvar = "e_peinfmor"

1612 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

1613 . global condvar = "success==1 & leftist==1"

1614 . quietly{

1615 . quietly: chp9matchmultimp

1616 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if leftist==1 & success==1 [pweight=freqwt],
     > fe cluster(revid)

1617 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1618 . * Marginsplot for visualizing trends
1619 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Infant mortality") ylabel(100(10)150 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Successful social" ))
     > note("Graph #55" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol(O) msi
     > ze(medlarge))

     Variables that uniquely identify margins: revny year

1620 . graph export Robustnesstestfiles\Logfiles\robch9graph47.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph47.pdf saved as PDF format

1621 . //
1622 . // Testing for a statistically significant "treatment" effect
1623 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
1624 . quietly: mi passive: generate treat=0

1625 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1626 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        275
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.1676
                                                     Largest FMI       =     0.0706
                                                     Complete DF       =          5
     DF adjustment:   Small sample                   DF:     min       =       3.72
                                                             avg       =       3.74
     Within VCE type:       Robust                           max       =       3.75

                                    (Within VCE adjusted for 6 clusters in revid)
     ------------------------------------------------------------------------------
       e_peinfmor | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
          treat   |
       (1 vs 0)  |  -4.900846    8.14819    -0.60   0.582    -28.13186    18.33017
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1  |  -4.659253   1.337338    -3.48   0.028    -8.480407   -.8380995
              2  |  -6.794694    1.09623    -6.20   0.004    -9.930347   -3.659042
              3  |  -8.485338   4.874265    -1.74   0.161    -22.38589    5.415214
              4  |  -12.68605   4.152195    -3.06   0.041     -24.5287   -.8434066
              5  |  -14.79788   4.607913    -3.21   0.036    -27.93931   -1.656464
              6  |   -17.4111    4.89507    -3.56   0.026    -31.37095   -3.451252
              7  |  -20.48335   5.041934    -4.06   0.017    -34.86179   -6.104908
              8  |  -24.02573   5.259302    -4.57   0.012    -39.02372   -9.027744
              9  |   -26.5827   5.714153    -4.65   0.011    -42.87717   -10.28824
             10  |  -27.86814   6.552412    -4.25   0.015    -46.55203   -9.184255
                 |
            _cons |   135.8932   2.810885    48.35   0.000     127.8754     143.911
     ------------------------------------------------------------------------------

1627 .         * RESULT:  Negative but statistically insignificant.
1628 . //
1629 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
```

```
1630 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1631 . *       are parallel between control and treatment groups in the pretreatment period).
1632 . *    Statistical significance indicates that trends are not parallel.
1633 . quietly: chp9matchptrends

1634 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = .00689644   p-value = .93703807

1635 .         * RESULT: No evidence of violation of parallel trends assumption
1636 . //
1637 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1638 . *       Statistical significance indicates that effects are observed prior to treatment.
1639 . quietly: chp9matchgranger

1640 . quietly: mi query

1641 . quietly: local M = r(M)

1642 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = .22123705   p-value = .80897311

1643 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1644 . //
1645 . * III) Grangerplot of lags and leads of the treatment time variable.
1646 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1647 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1648 . quietly: chp9matchgrangerplot

1649 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #48" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1650 . graph export Robustnesstestfiles\Logfiles\robch9graph48.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph48.pdf saved as PDF format

1651 .         * RESULT:  Lags are consistently negative (and relatively stable) but statistically insignificant.
1652 . //
1653 . * IV) Test for the influence of alternative treatments in surrounding periods
1654 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1655 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
1656 . quietly: chp9matchalttreat

1657 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  e_peinfmor
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat              -4.901
                       (-0.60)
     alttreat                           0.562          -0.695           2.327           0.296
                                       (0.24)         (-0.42)          (0.44)          (0.06)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                             -5.088          -4.438          -6.937          -5.123
                                      (-0.62)         (-0.61)         (-1.24)         (-1.04)
     ------------------------------------------------------------------------------------------------
     N                        275             275             275             275             275
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1658 .         * RESULT:  No evidence that alternative treatments at work.
1659 . //
1660 . * V) Lagged DV test
1661 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1662 . quietly: chp9matchdvlag

1663 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for e_peinfmor
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat              -4.901          -3.726          -4.659          -3.999
                       (8.148)         (7.947)         (8.073)         (7.323)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                          0.156*                          0.237+
                                       (0.0484)                        (0.0855)
     laggeddv2                                          0.0200          -0.101
                                                       (0.0294)        (0.0628)
     ------------------------------------------------------------------------------
     N                        275             274             274             273
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
. *         * RESULT: Evidence for AR1 processes that do not affect the statistical insignificance of treatment.
. *
. *
. // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
. global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

. global condvar = "success==1 & urbancivic==1"

. quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if urbancivic==1 & success==1 [pweight=freqwt
> ], fe cluster(revid)

. quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

. marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
> itle("Infant mortality") ylabel(45(5)65 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Succ urban civic" )) note
> ("Graph #49" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol(O) msize(m
> edlarge))

Variables that uniquely identify margins: revny year

. graph export Robustnesstestfiles\Logfiles\robch9graph49.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph49.pdf saved as PDF format

. //
. // Testing for a statistically significant "treatment" effect
. * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
. quietly: mi passive: replace treat=0

. quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

. mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
> r) vce(cluster revid)

Imputations (10):
  .........10 done

Multiple-imputation estimates                   Imputations       =         10
                                                Number of obs     =        880
Group variable:
                                                Number of groups  =          .
                                                Obs per group:
                                                              min =          .
                                                              avg =          .
                                                              max =          .
                                                Average RVI       =     0.6291
                                                Largest FMI       =     0.2725
                                                Complete DF       =         24
DF adjustment:   Small sample                   DF:     min       =      15.15
                                                        avg       =      19.53
Within VCE type:       Robust                           max       =      21.45

                                  (Within VCE adjusted for 25 clusters in revid)
------------------------------------------------------------------------------
  e_peinfmor | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |  -.7544526   1.390156    -0.54   0.593    -3.649527    2.140622
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |  -1.738053   .3567453    -4.87   0.000    -2.497774    -.978331
          2  |  -3.524303   .5122145    -6.88   0.000    -4.596274   -2.452331
          3  |  -5.123993   .8264371    -6.20   0.000    -6.861889   -3.386097
          4  |  -6.601409   .9301261    -7.10   0.000    -8.549565   -4.653253
          5  |   -8.27408   1.088472    -7.60   0.000    -10.54657   -6.001595
          6  |  -9.704735   1.220836    -7.95   0.000    -12.24677   -7.162702
          7  |  -11.16091    1.36758    -8.16   0.000       -14.01   -8.311811
          8  |  -12.55946   1.565889    -8.02   0.000    -15.82924   -9.289682
          9  |   -13.8363   1.714014    -8.07   0.000    -17.40295   -10.26965
         10  |  -15.19476   1.868045    -8.13   0.000    -19.08557   -11.30395
             |
       _cons |   62.98589   .9774403    64.44   0.000     60.95578    65.01599
------------------------------------------------------------------------------

. *         * RESULT:  Negative but statistically insignificant.
. //
. // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
. * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
. *       are parallel between control and treatment groups in the pretreatment period).
. *    Statistical significance indicates that trends are not parallel.
. quietly: chp9matchptrends

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .77982074   p-value = .38595621

. *         * RESULT: No evidence for violation of the parallel trends assumption.
. //
. * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
```

```
. *       Statistical significance indicates that effects are observed prior to treatment.
. quietly: chp9matchgranger

. quietly: mi query

. quietly: local M = r(M)

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .80136963   p-value = .46036013

.         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
. //
. * III) Grangerplot of lags and leads of the treatment time variable.
. *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
. *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
. quietly: chp9matchgrangerplot

. coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #50" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

. graph export Robustnesstestfiles\Logfiles\robch9graph50.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph50.pdf saved as PDF format

.         * RESULT:  Lags are negative and statistically insignificant, but increase in effect over time.
.         *       Implies the effect might become statistically significant over a longer period of time.
. //
. * IV) Test for the influence of alternative treatments in surrounding periods
. *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
. *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
. quietly: chp9matchalttreat

. esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  e_peinfmor
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat              -0.754
                  (-0.54)
alttreat                          -0.354          -0.209          -0.540          -0.733
                                 (-0.57)         (-0.45)         (-0.55)         (-0.73)
------------------------------------------------------------------------------------------------
Controls
treat                             -0.637          -0.615          -0.282          -0.204
                                 (-0.51)         (-0.54)         (-0.48)         (-0.28)
------------------------------------------------------------------------------------------------
N                     880             880             880             880             880
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

.         * RESULT:  No evidence of alternative treatment effects in proximate years.
. //
. * V) Lagged DV test
. *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
. quietly: chp9matchdvlag

. esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for e_peinfmor
------------------------------------------------------------------------------
                   No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat              -0.754          -0.647          -0.792          -0.616
                  (1.390)         (1.421)         (1.279)         (1.253)
------------------------------------------------------------------------------
Controls
laggeddv1                          0.0120                          0.0710**
                                  (0.0202)                        (0.0189)
laggeddv2                                         -0.0447**       -0.0763***
                                                 (0.0138)        (0.0124)
------------------------------------------------------------------------------
N                     880             864             853             849
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

.         * RESULT: Evidence for AR2 and possibly AR1 processes that do not affect the statistical insignificance of treatment.
.
.
. *==================================================
. * EFFECT OF REVOLUTION ON UNDER-FIVE CHILD MORTALITY
. *==================================================
```

```
1724 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE
1725 . * Will provide graphs, test for treatment effects, and check treatment effect
1726 . *   estimation assumptions
1727 .
1728 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
1729 . use matcheddiffindifflong.dta, clear

1730 . global yvar = "under5mort"

1731 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

1732 . global condvar = "success==1 & leftist==1"

1733 . quietly{

1734 . quietly: chp9matchmultimp

1735 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if leftist==1 & success==1 [pweight=freqwt],
     > fe cluster(revid)

1736 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1737 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Under-5 child mortality") ylabel(180(10)270 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Successful soci
     > al" )) note("Graph #51" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol
     > (O) msize(medlarge))

     Variables that uniquely identify margins: revny year

1738 . graph export Robustnesstestfiles\Logfiles\robch9graph51.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph51.pdf saved as PDF format

1739 . //
1740 . // Testing for a statistically significant "treatment" effect
1741 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
1742 . quietly: mi passive: generate treat=0

1743 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1744 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
       under5mort | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |  -5.218029   11.36095    -0.46   0.661    -32.46526     22.0292
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1   |  -6.778224    .943622    -7.18   0.000    -9.041334   -4.515113
              2   |  -11.77447    1.38159    -8.52   0.000    -15.08797   -8.460973
              3   |  -33.28479     13.706    -2.43   0.048    -66.15621   -.4133672
              4   |  -37.62123   13.42611    -2.80   0.028    -69.82137   -5.421091
              5   |  -41.79375   13.24997    -3.15   0.018    -73.57146   -10.01605
              6   |  -45.76915   13.11244    -3.49   0.011    -77.21701   -14.32129
              7   |  -50.67719    12.8435    -3.95   0.006    -81.48007   -19.87432
              8   |  -54.86002    12.8427    -4.27   0.004    -85.66098   -24.05907
              9   |  -57.99564   13.04758    -4.44   0.004    -89.28796   -26.70332
             10   |  -62.63481   12.83376    -4.88   0.002    -93.41432   -31.85529
                  |
            _cons |   256.1364   8.310258    30.82   0.000     236.2057    276.0671
     ------------------------------------------------------------------------------

1745 .         * RESULT:  Negative but statistically insignificant.
1746 . //
1747 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1748 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1749 . *       are parallel between control and treatment groups in the pretreatment period).
```

```
1750 . *    Statistical significance indicates that trends are not parallel.
1751 . quietly: chp9matchptrends

1752 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .1121399   p-value = .74633222

1753 .         * RESULT: No evidence of violation of parallel trends assumption
1754 . //
1755 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1756 . *       Statistical significance indicates that effects are observed prior to treatment.
1757 . quietly: chp9matchgranger

1758 . quietly: mi query

1759 . quietly: local M = r(M)

1760 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .08731364   p-value = .91725082

1761 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1762 . //
1763 . * III) Grangerplot of lags and leads of the treatment time variable.
1764 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1765 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1766 . quietly: chp9matchgrangerplot

1767 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #52" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1768 . graph export Robustnesstestfiles\Logfiles\robch9graph52.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph52.pdf saved as PDF format

1769 .         * RESULT:  Lags are consistently negative (and relatively stable) but statistically insignificant.
1770 . //
1771 . * IV) Test for the influence of alternative treatments in surrounding periods
1772 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1773 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
1774 . quietly: chp9matchalttreat

1775 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  under5mort
------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------
ATET
treat              -5.218
                  (-0.46)
alttreat                           1.367           1.082          -0.627          -0.935
                                  (0.37)          (0.29)         (-0.10)         (-0.15)
------------------------------------------------------------------------------------------
Controls
treat                             -5.674          -5.940          -4.670          -4.517
                                  (-0.54)         (-0.63)         (-0.48)         (-0.45)
------------------------------------------------------------------------------------------
N                     374             374             374             374             374
------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1776 .         * RESULT:  No evidence that alternative treatments at work.
1777 . //
1778 . * V) Lagged DV test
1779 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1780 . quietly: chp9matchdvlag

1781 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for under5mort
------------------------------------------------------------------------------
                    No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat              -5.218          -4.700          -6.234          -5.681
                  (11.36)         (11.63)         (9.567)         (8.697)
------------------------------------------------------------------------------
Controls
laggeddv1                          0.0675                           0.187+
                                  (0.0626)                        (0.0916)
laggeddv2                                         -0.0956*         -0.179*
                                                 (0.0354)        (0.0635)
------------------------------------------------------------------------------
N                     374             374             374             374
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
1782 .         * RESULT: Evidence for AR2 processes that do not affect the statistical insignificance of treatment.
1783 .
1784 .
1785 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
1786 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

1787 . global condvar = "success==1 & urbancivic==1"

1788 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if urbancivic==1 & success==1 [pweight=freqwt
     > ], fe cluster(revid)

1789 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1790 . * Marginsplot for visualizing trends
1791 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("Under-5 child mortality") ylabel(65(5)105 ,format(%9.0fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Succ urban civic"
     >  )) note("Graph #53" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opts(msymbol(O)
     >  msize(medlarge))

     Variables that uniquely identify margins: revny year

1792 . graph export Robustnesstestfiles\Logfiles\robch9graph53.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph53.pdf saved as PDF format

1793 . //
1794 . // Testing for a statistically significant "treatment" effect
1795 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
1796 . quietly: mi passive: replace treat=0

1797 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1798 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        858
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.3267
                                                     Largest FMI       =     0.0385
                                                     Complete DF       =         23
     DF adjustment:   Small sample                   DF:     min       =      20.55
                                                             avg       =      20.95
     Within VCE type:       Robust                           max       =      21.23

                                    (Within VCE adjusted for 24 clusters in revid)
     ------------------------------------------------------------------------------
       under5mort | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |   -1.72269   2.003728    -0.86   0.400    -5.895241    2.449861
     -------------+----------------------------------------------------------------
     Controls     |
             year |
                1 |  -3.247809   .4561174    -7.12   0.000     -4.19573   -2.299888
                2 |  -6.475599   .8380683    -7.73   0.000    -8.217305   -4.733894
                3 |  -8.783764   1.325246    -6.63   0.000    -11.54096   -6.026568
                4 |  -11.44297   1.598505    -7.16   0.000     -14.7675   -8.118438
                5 |  -13.96595   1.883575    -7.41   0.000    -17.88253   -10.04937
                6 |  -16.31851   2.153686    -7.58   0.000    -20.79618   -11.84084
                7 |  -18.48261   2.506492    -7.37   0.000    -23.69671   -13.26851
                8 |  -20.95751   2.726629    -7.69   0.000    -26.63097   -15.28405
                9 |  -22.93471   3.077187    -7.45   0.000    -29.34031   -16.52912
               10 |  -25.73887   3.220327    -7.99   0.000    -32.43845   -19.03928
                  |
            _cons |   98.61827   1.801069    54.76   0.000     94.87522    102.3613
     ------------------------------------------------------------------------------

1799 .         * RESULT:  Negative but statistically insignificant.
1800 . //
1801 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1802 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1803 . *       are parallel between control and treatment groups in the pretreatment period).
1804 . *    Statistical significance indicates that trends are not parallel.
1805 . quietly: chp9matchptrends

1806 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 1.2589667   p-value = .27342443

1807 .         * RESULT: No evidence for violation of the parallel trends assumption.
1808 . //
```

```
1809 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1810 . *       Statistical significance indicates that effects are observed prior to treatment.
1811 . quietly: chp9matchgranger

1812 . quietly: mi query

1813 . quietly: local M = r(M)

1814 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 1.0572067   p-value = .36370995

1815 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1816 . //
1817 . * III) Grangerplot of lags and leads of the treatment time variable.
1818 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1819 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1820 . quietly: chp9matchgrangerplot

1821 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #54" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1822 . graph export Robustnesstestfiles\Logfiles\robch9graph54.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph54.pdf saved as PDF format

1823 .         * RESULT:  Lags are negative and statistically insignificant, but increase in effect over time.
1824 .         *       Implies the effect might become statistically significant over a longer period of time.
1825 . //
1826 . * IV) Test for the influence of alternative treatments in surrounding periods
1827 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1828 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
1829 . quietly: chp9matchalttreat

1830 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  under5mort
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat              -1.723
                       (-0.86)
     alttreat                          -0.814          -0.559          -1.321          -1.342
                                      (-1.25)         (-0.95)         (-0.93)         (-0.93)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                             -1.451          -1.350          -0.567          -0.716
                                      (-0.79)         (-0.81)         (-0.68)         (-0.70)
     ------------------------------------------------------------------------------------------------
     N                    858             858             858             858             858
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1831 .         * RESULT:  No evidence of alternative treatment effects in proximate years.
1832 . //
1833 . * V) Lagged DV test
1834 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1835 . quietly: chp9matchdvlag

1836 . esttab , se drop(*.year  cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for under5mort
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat              -1.723          -1.371          -1.928          -1.410
                       (2.004)         (2.170)         (1.981)         (1.911)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                          0.0346                          0.0904**
                                       (0.0238)                        (0.0277)
     laggeddv2                                         -0.0273*        -0.0706***
                                                      (0.0114)        (0.0138)
     ------------------------------------------------------------------------------
     N                    858             845             834             832
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1837 .         * RESULT: Evidence for AR2 and possibly AR1 processes that do not affect the statistical insignificance of treatment.
1838 .
1839 .
1840 . *=================================================================
1841 . * EFFECT OF REVOLUTION ON INCOME INEQUALITY (GINI INDEX)--FIGURE 9.10
```

```
. *================================================================
. * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE, AND GRAPH
. *       PROVIDED IN FIGURE 9.10 IN BOOK
. *       INSUFFICIENT DATA AVAILABLE FOR MATCHED SAMPLES
. *       NO ADDITIONAL ROBUSTNESS TESTS CARRIED OUT
.
.
. *=========================================================
. * EFFECT OF REVOLUTION ON STATE/PRIVATE PROPERTY OWNERSHIP
. *=========================================================
. * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE
. * Graphs of results produced here
.
. * SUCCESSFUL SOCIAL VS. SUCCESSFUL URBAN CIVIC
. use simplediffindifflong.dta, clear

. global yvar = "vdstown_ord"

. label var vdstown_ord "Private owndership of the economy (0-4)"

. quietly{

. global condvar = "leftist==1"

. quietly: chp9simpmultimp

. quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.leftist##ib(2).year if success==1, fe vce(robust)

. quietly: mimrgns, at(leftist=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

. marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
> itle("VDEM State/Property Index") ylabel(.5(.5)3.5 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Urban civic" 2 "Social" ))
>  note("Graph #55" , span) title("`titvar1'" "Avg marginal predictions for successful episodes") plot1opts(msymbol(Oh) msize(medlarge))
>  plot2opts(msymbol(O) msize(medlarge))

Variables that uniquely identify margins: leftist year

. graph export Robustnesstestfiles\Logfiles\robch9graph55.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph55.pdf saved as PDF format

.
. * SUCCESSFUL URBAN CIVIC VS. FAILED URBAN CIVIC
. quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.success##ib(2).year if leftist==0, fe vce(robust)

. quietly: mimrgns, at(success=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

. marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
> itle("VDEM State/Property Index") ylabel(1(.5)3 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Failed urban civic" 2 "Succes
> sful urban civic" )) note("Graph #56" , span) title("`titvar1'" "Avg marginal predictions for urban civic episodes") plot1opts(msymbol
> (Oh) msize(medlarge)) plot2opts(msymbol(O) msize(medlarge))

Variables that uniquely identify margins: success year

. graph export Robustnesstestfiles\Logfiles\robch9graph56.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph56.pdf saved as PDF format

.
. * SUCCESSFUL SOCIAL VS. FAILED SOCIAL
. quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.success##ib(2).year if leftist==1, fe vce(robust)

. quietly: mimrgns, at(success=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

. marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
> itle("VDEM State/Property Index") ylabel(1(.5)3 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Failed social" 2 "Successful
> social" )) note("Graph #57" , span) title("`titvar1'" "Avg marginal predictions for urban civic episodes") plot1opts(msymbol(Oh) msize
> (medlarge)) plot2opts(msymbol(O) msize(medlarge))

Variables that uniquely identify margins: success year

. graph export Robustnesstestfiles\Logfiles\robch9graph57.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph57.pdf saved as PDF format

.
. * URBAN CIVIC, EXCLUDING CASES OF POSTCOMMUNIST TRANSITIONS
. quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.success##ib(2).year if leftist==0 & incgovcommunist==0, fe vce(
> robust)

. quietly: mimrgns, at(success=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

. marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
> itle("VDEM State/Property Index") ylabel(1.5(.5)3 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Failed urban civic" 2 "Succ
> essful urban civic" )) note("Graph #58" , span) title("`titvar1'" "Avg marginal predictions for urban civic (no post-comm)") plot1opts
> (msymbol(Oh) msize(medlarge)) plot2opts(msymbol(O) msize(medlarge))

Variables that uniquely identify margins: success year

. graph export Robustnesstestfiles\Logfiles\robch9graph58.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph58.pdf saved as PDF format
```

```
1884 .
1885 .
1886 . *=========================================
1887 . * EFFECT OF REVOLUTION ON GENDER INEQUALITY
1888 . *=========================================
1889 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE
1890 . * Will provide graphs, test for treatment effects, and check treatment effect
1891 . *   estimation assumptions
1892 .
1893 .
1894 . *====================================
1895 . * WOMEN'S POLITICAL EMPOWERMENT INDEX
1896 . *====================================
1897 .
1898 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
1899 . use matcheddiffindifflong.dta, clear

1900 . global yvar = "v2x_gender"

1901 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

1902 . global condvar = "success==1 & leftist==1"

1903 . quietly{

1904 . quietly: chp9matchmultimp

1905 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if leftist==1 & success==1 [pweight=freqwt],
     > fe cluster(revid)

1906 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

1907 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM Women's Political Empowerment Index") ylabel(.2(.1).5 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "
     > Successful social" )) note("Graph #59" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) pl
     > ot2opts(msymbol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

1908 . graph export Robustnesstestfiles\Logfiles\robch9graph59.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph59.pdf saved as PDF format

1909 . //
1910 . // Testing for a statistically significant "treatment" effect
1911 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
1912 . quietly: mi passive: generate treat=0

1913 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

1914 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.1186
                                                     Largest FMI       =     0.0420
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.50
                                                             avg       =       6.54
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
       v2x_gender | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |   .0417181   .0659091     0.63   0.548    -.1163535    .1997897
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1   |   .0014205   .0027266     0.52   0.620    -.0051189    .0079598
              2   |   .0008192   .0024172     0.34   0.745    -.0049873    .0066256
              3   |   .0344667   .0357136     0.97   0.369    -.0511861    .1201195
              4   |    .047601   .0296183     1.61   0.155    -.0234334    .1186353
              5   |   .0608825   .0289859     2.10   0.077    -.0086351    .1304001
              6   |   .0577891   .0280007     2.06   0.081    -.0093657    .1249439
              7   |   .0561062   .0283923     1.98   0.092    -.0119878    .1242003
              8   |    .058261   .0278966     2.09   0.078    -.0086442    .1251661
              9   |   .0643716   .0295984     2.17   0.069    -.0066149    .1353582
             10   |   .0676399   .0293412     2.31   0.057      -.00273    .1380098
                  |
            _cons |   .3086745   .0369999     8.34   0.000     .2199368    .3974122
     ------------------------------------------------------------------------------
```

```
1915 .         * RESULT:  Positive but statistically insignificant.
1916 . //
1917 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
1918 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
1919 . *       are parallel between control and treatment groups in the pretreatment period).
1920 . *    Statistical significance indicates that trends are not parallel.
1921 . quietly: chp9matchptrends

1922 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 4.2430649   p-value = .0733748

1923 .         * RESULT: Marginally significant evidence (at the .10 level) of violation of the parallel trends assumption
1924 . //
1925 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
1926 . *       Statistical significance indicates that effects are observed prior to treatment.
1927 . quietly: chp9matchgranger

1928 . quietly: mi query

1929 . quietly: local M = r(M)

1930 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 2.209219   p-value = .17222336

1931 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1932 . //
1933 . * III) Grangerplot of lags and leads of the treatment time variable.
1934 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1935 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1936 . quietly: chp9matchgrangerplot

1937 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #60" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1938 . graph export Robustnesstestfiles\Logfiles\robch9graph60.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph60.pdf saved as PDF format

1939 .         * RESULT:  Lags are consistently positive (and relatively stable) but statistically insignificant.
1940 . //
1941 . * IV) Test for the influence of alternative treatments in surrounding periods
1942 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1943 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
1944 . quietly: chp9matchalttreat

1945 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  v2x_gender
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat              0.0417
                        (0.63)
     alttreat                       -0.00849+       -0.00363          0.0196          0.0148
                                     (-2.08)         (-1.50)          (0.42)          (0.46)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                            0.0445          0.0441          0.0246          0.0306
                                      (0.68)          (0.66)          (0.49)          (0.55)
     ------------------------------------------------------------------------------------------------
     N                     374             374             374             374             374
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1946 .         * RESULT:  No evidence that alternative treatments at work.
1947 . //
1948 . * V) Lagged DV test
1949 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
1950 . quietly: chp9matchdvlag

1951 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for v2x_gender
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat              0.0417          0.0321          0.0411          0.0300
                       (0.0659)        (0.0412)        (0.0575)        (0.0425)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                         0.413***                        0.533***
                                      (0.0604)                        (0.0717)
     laggeddv2                                          0.145          -0.162
                                                       (0.103)        (0.0872)
     ------------------------------------------------------------------------------
     N                     374             373             373             372
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
. * RESULT: Evidence for AR1 processes that do not affect the statistical insignificance of treatment.
.
.
. // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
. global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

. global condvar = "success==1 & urbancivic==1"

. quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if urbancivic==1 & success==1 [pweight=freqwt
> ], fe cluster(revid)

. quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

. marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
> itle("VDEM Women's Political Empowerment Index") ylabel(.5(.05).7 , format(%9.2fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2
>  "Succ urban civic" )) note("Graph #61" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) p
> lot2opts(msymbol(O) msize(medlarge))

Variables that uniquely identify margins: revny year

. graph export Robustnesstestfiles\Logfiles\robch9graph61.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph61.pdf saved as PDF format

. //
. // Testing for a statistically significant "treatment" effect
. * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
. quietly: mi passive: replace treat=0

. quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

. mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
> r) vce(cluster revid)

Imputations (10):
  .........10 done

Multiple-imputation estimates                   Imputations       =         10
                                                Number of obs     =        924
Group variable:
                                                Number of groups  =          .
                                                Obs per group:
                                                              min =          .
                                                              avg =          .
                                                              max =          .
                                                Average RVI       =     0.1360
                                                Largest FMI       =     0.0533
                                                Complete DF       =         25
DF adjustment:   Small sample                   DF:     min       =      22.07
                                                        avg       =      22.83
Within VCE type:       Robust                           max       =      23.21

                                  (Within VCE adjusted for 26 clusters in revid)
------------------------------------------------------------------------------
  v2x_gender | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |   .0506443   .0208588     2.43   0.024      .007463    .0938256
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |    .003604   .0025239     1.43   0.167    -.0016145    .0088225
          2  |    .011143   .0044465     2.51   0.020     .0019495    .0203365
          3  |   .0195628    .013442     1.46   0.159      -.00825    .0473757
          4  |   .0583258   .0122193     4.77   0.000     .0330387    .0836129
          5  |   .0588466   .0117172     5.02   0.000      .034601    .0830923
          6  |    .064366   .0131961     4.88   0.000     .0370677    .0916643
          7  |   .0675793   .0129375     5.22   0.000     .0408144    .0943441
          8  |   .0674425   .0133701     5.04   0.000     .0397639    .0951212
          9  |    .078292   .0155079     5.05   0.000     .0461363    .1104477
         10  |   .0857723   .0176702     4.85   0.000     .0491508    .1223938
             |
       _cons |   .5574866   .0092749    60.11   0.000     .5383098    .5766634
------------------------------------------------------------------------------

. * RESULT:  Positive and statistically significant at the .05 level.
. //
. // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
. * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
. *       are parallel between control and treatment groups in the pretreatment period).
. *    Statistical significance indicates that trends are not parallel.
. quietly: chp9matchptrends

. di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .01417606   p-value = .90617681

. * RESULT: No evidence for violation of the parallel trends assumption.
. //
. * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
```

```
1979 . *       Statistical significance indicates that effects are observed prior to treatment.
1980 . quietly: chp9matchgranger

1981 . quietly: mi query

1982 . quietly: local M = r(M)

1983 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = .07853139   p-value = .92470017

1984 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
1985 . //
1986 . * III) Grangerplot of lags and leads of the treatment time variable.
1987 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
1988 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
1989 . quietly: chp9matchgrangerplot

1990 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #62" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

1991 . graph export Robustnesstestfiles\Logfiles\robch9graph62.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph62.pdf saved as PDF format

1992 .         * RESULT:  Lags are positive and mostly statistically significant, and relatively stable over time.
1993 . //
1994 . * IV) Test for the influence of alternative treatments in surrounding periods
1995 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
1996 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
1997 . quietly: chp9matchalttreat

1998 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  v2x_gender
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat              0.0506*
                        (2.43)
     alttreat                        -0.000418         0.00140          0.0524**        0.0250+
                                       (-0.11)          (0.25)          (3.06)          (1.96)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                             0.0508*         0.0497*        0.00476          0.0319+
                                       (2.40)          (2.16)          (0.33)          (2.02)
     ------------------------------------------------------------------------------------------------
     N                        924             924             924             924             924
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

1999 .         * RESULT:  Alternative treatment effects at t+1 and t+2 turn treatment effect statistically insignificant.
2000 .         *       Implies processes after revolution that influence the nature of the effect.
2001 . //
2002 . * V) Lagged DV test
2003 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2004 . quietly: chp9matchdvlag

2005 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for v2x_gender
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat              0.0506*         0.0371*         0.0549**        0.0459**
                       (0.0209)        (0.0161)        (0.0178)        (0.0147)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                           0.332***                        0.376***
                                        (0.0555)                        (0.0487)
     laggeddv2                                            0.137**       -0.0780*
                                                         (0.0478)        (0.0281)
     ------------------------------------------------------------------------------
     N                        924             908             894             892
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2006 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical significance of treatment.
2007 .
2008 .
2009 . *=========================
2010 . * WOMEN'S CIVIL LIBERTIES
2011 . *=========================
```

```
2012 .
2013 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
2014 . use matcheddiffindifflong.dta, clear

2015 . global yvar = "v2x_gencl"

2016 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

2017 . global condvar = "success==1 & leftist==1"

2018 . quietly{

2019 . quietly: chp9matchmultimp

2020 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if leftist==1 & success==1 [pweight=freqwt],
     > fe cluster(revid)

2021 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

2022 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM Women's Civil Liberties Index") ylabel(.2(.1).5 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Succes
     > sful social" )) note("Graph #63" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2opt
     > s(msymbol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

2023 . graph export Robustnesstestfiles\Logfiles\robch9graph63.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph63.pdf saved as PDF format

2024 . //
2025 . // Testing for a statistically significant "treatment" effect
2026 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
2027 . quietly: mi passive: generate treat=0

2028 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2029 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
        v2x_gencl | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
       (1 vs 0)  |  -.0235326   .0820006    -0.29   0.783    -.2201966    .1731314
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1  |  -.0000481   .0050112    -0.01   0.993    -.0120665    .0119703
              2  |  -.0001108    .005271    -0.02   0.984    -.0127524    .0125307
              3  |   .0565313   .0334082     1.69   0.137    -.0235925    .1366551
              4  |    .053609   .0321026     1.67   0.142    -.0233834    .1306015
              5  |   .0587059   .0332583     1.77   0.124    -.0210583    .1384701
              6  |   .0521115   .0334946     1.56   0.167    -.0282194    .1324424
              7  |    .051702   .0335529     1.54   0.170    -.0287686    .1321726
              8  |    .052807   .0325299     1.62   0.152    -.0252101    .1308242
              9  |   .0439722   .0315994     1.39   0.210    -.0318133    .1197578
             10  |   .0433239   .0316764     1.37   0.217    -.0326463    .1192941
                 |
           _cons |   .3281135   .0460573     7.12   0.000     .2176531     .438574
     ------------------------------------------------------------------------------

2030 .         * RESULT:  Negative but statistically insignificant.
2031 . //
2032 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2033 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2034 . *       are parallel between control and treatment groups in the pretreatment period).
2035 . *    Statistical significance indicates that trends are not parallel.
2036 . quietly: chp9matchptrends
```

```
2037 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 1.8419293   p-value = .21177227

2038 .         * RESULT: No evidence of violation of the parallel trends assumption
2039 . //
2040 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2041 . *       Statistical significance indicates that effects are observed prior to treatment.
2042 . quietly: chp9matchgranger

2043 . quietly: mi query

2044 . quietly: local M = r(M)

2045 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 1.4763151   p-value = .28463366

2046 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2047 . //
2048 . * III) Grangerplot of lags and leads of the treatment time variable.
2049 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2050 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2051 . quietly: chp9matchgrangerplot

2052 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #64" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2053 . graph export Robustnesstestfiles\Logfiles\robch9graph64.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph64.pdf saved as PDF format

2054 .         * RESULT:  Lags are statistically insignificant but grow increasingly negative over time.
2055 . //
2056 . * IV) Test for the influence of alternative treatments in surrounding periods
2057 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2058 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
2059 . quietly: chp9matchalttreat

2060 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  v2x_gencl
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat             -0.0235
                       (-0.29)
     alttreat                          -0.0132        -0.00610         -0.0392         -0.0319
                                       (-1.46)         (-1.16)         (-0.79)         (-1.08)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                             -0.0191         -0.0195          0.0108        0.000392
                                       (-0.24)         (-0.24)          (0.20)          (0.01)
     ------------------------------------------------------------------------------------------------
     N                         374             374             374             374             374
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2061 .         * RESULT:  No evidence that alternative treatments at work.
2062 . //
2063 . * V) Lagged DV test
2064 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2065 . quietly: chp9matchdvlag

2066 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for v2x_gencl
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat             -0.0235          0.0129       -0.000484        -0.00115
                      (0.0820)        (0.0503)        (0.0654)        (0.0474)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                         0.434***                        0.556***
                                      (0.0515)                        (0.0823)
     laggeddv2                                            0.160*         -0.168+
                                                         (0.0603)        (0.0715)
     ------------------------------------------------------------------------------
     N                         374             374             374             374
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2067 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical insignificance of treatment.
```

```
2068 .
2069 .
2070 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
2071 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

2072 . global condvar = "success==1 & urbancivic==1"

2073 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if urbancivic==1 & success==1 [pweight=freqwt
     > ], fe cluster(revid)

2074 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

2075 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM Women's Civil Liberties Index") ylabel(.5(.05).7 , format(%9.2fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "Succ
     >  urban civic" )) note("Graph #65" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) plot2op
     > ts(msymbol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

2076 . graph export Robustnesstestfiles\Logfiles\robch9graph65.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph65.pdf saved as PDF format

2077 . //
2078 . // Testing for a statistically significant "treatment" effect
2079 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
2080 . quietly: mi passive: replace treat=0

2081 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2082 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        946
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.1544
                                                     Largest FMI       =     0.0169
                                                     Complete DF       =         25
     DF adjustment:   Small sample                   DF:     min       =      22.95
                                                             avg       =      23.12
     Within VCE type:       Robust                           max       =      23.21

                                    (Within VCE adjusted for 26 clusters in revid)
     ------------------------------------------------------------------------------
        v2x_gencl | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
            treat |
        (1 vs 0)  |   .0689313   .0238606     2.89   0.008     .0195726    .1182901
     -------------+----------------------------------------------------------------
     Controls     |
             year |
               1  |  -.0027654   .0020021    -1.38   0.180     -.006905    .0013743
               2  |   .0033181   .0034806     0.95   0.350    -.0038785    .0105146
               3  |   .0137472   .0135921     1.01   0.322    -.0143666    .0418609
               4  |    .051314   .0194214     2.64   0.015     .0111509     .091477
               5  |   .0459972   .0202933     2.27   0.033      .004029    .0879653
               6  |   .0594635   .0261132     2.28   0.032     .0054686    .1134583
               7  |   .0642865   .0265189     2.42   0.024     .0094491    .1191239
               8  |   .0662237   .0269131     2.46   0.022     .0105657    .1218818
               9  |   .0733271    .027954     2.62   0.015     .0155021    .1311522
              10  |   .0705859   .0293824     2.40   0.025     .0097971    .1313747
                  |
            _cons |   .5387864   .0193166    27.89   0.000     .4988473    .5787255
     ------------------------------------------------------------------------------

2083 .         * RESULT:  Positive and statistically significant at the .01 level.
2084 . //
2085 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2086 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2087 . *       are parallel between control and treatment groups in the pretreatment period).
2088 . *    Statistical significance indicates that trends are not parallel.
2089 . quietly: chp9matchptrends

2090 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 2.1559784   p-value = .15448666

2091 .         * RESULT: No evidence for violation of the parallel trends assumption.
2092 . //
2093 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2094 . *       Statistical significance indicates that effects are observed prior to treatment.
```

```
2095 . quietly: chp9matchgranger

2096 . quietly: mi query

2097 . quietly: local M = r(M)

2098 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 1.8946588   p-value = .1713397

2099 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2100 . //
2101 . * III) Grangerplot of lags and leads of the treatment time variable.
2102 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2103 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2104 . quietly: chp9matchgrangerplot

2105 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #66" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2106 . graph export Robustnesstestfiles\Logfiles\robch9graph66.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph66.pdf saved as PDF format

2107 .         * RESULT:  Lags are consistently positive and statistically significant, but deteriorate over time.
2108 . //
2109 . * IV) Test for the influence of alternative treatments in surrounding periods
2110 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2111 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
2112 . quietly: chp9matchalttreat

2113 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  v2x_gencl
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat              0.0689**
                        (2.89)
     alttreat                          -0.00520        -0.00700+         0.0271        -0.00195
                                        (-1.16)         (-1.73)          (1.25)         (-0.11)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                              0.0707**        0.0736**        0.0452*         0.0704***
                                        (2.95)          (3.01)          (2.73)          (4.29)
     ------------------------------------------------------------------------------------------------
     N                        946             946             946             946             946
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2114 .         * RESULT:  No alternative treatment effects that affect the statistical significance of treatment.
2115 . //
2116 . * V) Lagged DV test
2117 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2118 . quietly: chp9matchdvlag

2119 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for v2x_gencl
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat               0.0689**        0.0448*         0.0758**        0.0598**
                        (0.0239)        (0.0209)        (0.0246)        (0.0192)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                             0.365***                        0.442***
                                          (0.0917)                        (0.0872)
     laggeddv2                                              0.121          -0.128**
                                                           (0.0715)        (0.0340)
     ------------------------------------------------------------------------------
     N                        946             930             916             914
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2120 .         * RESULT: Evidence for AR1 and (possibly) AR2 processes that do not affect the statistical significance of treatment.
2121 .
2122 .
2123 . *=======================================
2124 . * WOMEN'S PARTICIPATION IN CIVIL SOCIETY
2125 . *=======================================
2126 .
2127 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
```

```
2128 . use matcheddiffindifflong.dta, clear

2129 . global yvar = "v2x_gencs"

2130 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

2131 . global condvar = "success==1 & leftist==1"

2132 . quietly{

2133 . quietly: chp9matchmultimp

2134 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if leftist==1 & success==1 [pweight=freqwt],
     > fe cluster(revid)

2135 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

2136 . * Marginsplot for visualizing trends
2137 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM Women's Part in Civil Society Index") ylabel(.2(.1).5 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2 "
     > Successful social" )) note("Graph #67" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) pl
     > ot2opts(msymbol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

2138 . graph export Robustnesstestfiles\Logfiles\robch9graph67.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph67.pdf saved as PDF format

2139 . //
2140 . // Testing for a statistically significant "treatment" effect
2141 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
2142 . quietly: mi passive: generate treat=0

2143 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2144 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
        v2x_gencs | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat |
        (1 vs 0)  |   .0913928   .0772395     1.18   0.278    -.0938525    .2766381
     -------------+----------------------------------------------------------------
     Controls     |
            year |
              1  |   .0016405   .0011426     1.44   0.197    -.0010998    .0043807
              2  |   .0024054   .0026225     0.92   0.392    -.0038843     .008695
              3  |   .0178948   .0379557     0.47   0.653    -.0731352    .1089248
              4  |   .0456013   .0266705     1.71   0.134    -.0183632    .1095658
              5  |   .0528402   .0246345     2.14   0.072    -.0062412    .1119216
              6  |   .0548686   .0240724     2.28   0.059    -.0028649    .1126022
              7  |   .0568267   .0238729     2.38   0.051    -.0004283    .1140818
              8  |   .0538531   .0239602     2.25   0.062    -.0036113    .1113175
              9  |   .0538288   .0254603     2.11   0.075    -.0072333    .1148909
             10  |   .0529723   .0254022     2.09   0.078    -.0079503     .113895
                 |
           _cons |   .2865672   .0367115     7.81   0.000     .1985211    .3746133
     ------------------------------------------------------------------------------

2145 .         * RESULT:  Positive but statistically insignificant.
2146 . //
2147 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2148 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2149 . *       are parallel between control and treatment groups in the pretreatment period).
2150 . *    Statistical significance indicates that trends are not parallel.
2151 . quietly: chp9matchptrends

2152 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 3.4047427   p-value = .10222765
```

```
2153 .         * RESULT: No evidence of violation of the parallel trends assumption
2154 . //
2155 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2156 . *       Statistical significance indicates that effects are observed prior to treatment.
2157 . quietly: chp9matchgranger

2158 . quietly: mi query

2159 . quietly: local M = r(M)

2160 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 2.4292716   p-value = .14982796

2161 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2162 . //
2163 . * III) Grangerplot of lags and leads of the treatment time variable.
2164 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2165 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2166 . quietly: chp9matchgrangerplot

2167 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #68" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2168 . graph export Robustnesstestfiles\Logfiles\robch9graph68.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph68.pdf saved as PDF format

2169 .         * RESULT:  Lags are statistically insignificant, positive, and relatively stable.
2170 . //
2171 . * IV) Test for the influence of alternative treatments in surrounding periods
2172 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2173 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
2174 . quietly: chp9matchalttreat

2175 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  v2x_gencs
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat              0.0914
                   (1.18)
alttreat                        -0.00391+       -0.00359          0.0483          0.0341
                                 (-2.18)         (-1.21)          (0.85)          (1.06)
------------------------------------------------------------------------------------------------
Controls
treat                             0.0927          0.0938          0.0491          0.0658
                                  (1.20)          (1.20)          (0.91)          (1.04)
------------------------------------------------------------------------------------------------
N                     374             374             374             374             374
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2176 .         * RESULT:  No evidence that alternative treatments at work.
2177 . //
2178 . * V) Lagged DV test
2179 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2180 . quietly: chp9matchdvlag

2181 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for v2x_gencs
------------------------------------------------------------------------------
                   No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat              0.0914          0.0625          0.0823          0.0636
                  (0.0772)        (0.0523)        (0.0706)        (0.0545)
------------------------------------------------------------------------------
Controls
laggeddv1                          0.359**                         0.457***
                                  (0.0739)                        (0.0528)
laggeddv2                                           0.130          -0.128+
                                                   (0.104)         (0.0662)
------------------------------------------------------------------------------
N                     374             374             374             374
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2182 .         * RESULT: Evidence for AR1 processes that do not affect the statistical insignificance of treatment.
2183 .
2184 .
2185 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
```

```
2186 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

2187 . global condvar = "success==1 & urbancivic==1"

2188 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if urbancivic==1 & success==1 [pweight=freqwt
     > ], fe cluster(revid)

2189 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

2190 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM Women's Part in Civil Society Index") ylabel(.5(.05).7 , format(%9.2fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2
     >  "Succ urban civic" )) note("Graph #69" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge)) p
     > lot2opts(msymbol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

2191 . graph export Robustnesstestfiles\Logfiles\robch9graph69.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph69.pdf saved as PDF format

2192 . //
2193 . // Testing for a statistically significant "treatment" effect
2194 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
2195 . quietly: mi passive: replace treat=0

2196 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2197 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        946
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.1118
                                                     Largest FMI       =     0.0293
                                                     Complete DF       =         25
     DF adjustment:   Small sample                   DF:     min       =      22.66
                                                             avg       =      23.04
     Within VCE type:       Robust                           max       =      23.21

                                    (Within VCE adjusted for 26 clusters in revid)
     ------------------------------------------------------------------------------
        v2x_gencs | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat |
        (1 vs 0)  |   .0782993   .0230697     3.39   0.002     .0305712    .1260273
     -------------+----------------------------------------------------------------
     Controls     |
            year |
              1  |   .0057367    .002698     2.13   0.044     .0001584     .011315
              2  |   .0100879   .0045983     2.19   0.039     .0005804    .0195954
              3  |   .0172918   .0134021     1.29   0.210    -.0104307    .0450143
              4  |   .0582226   .0166456     3.50   0.002     .0237962     .092649
              5  |   .0605825   .0170524     3.55   0.002     .0253124    .0958526
              6  |   .0574704    .018915     3.04   0.006     .0183568    .0965841
              7  |   .0589959   .0186333     3.17   0.004     .0204579    .0975338
              8  |   .0560327   .0189057     2.96   0.007     .0169271    .0951383
              9  |   .0623333   .0193401     3.22   0.004     .0223029    .1023636
             10  |   .0692138    .020398     3.39   0.003     .0269826    .1114449
                 |
           _cons |   .5242552   .0143653    36.49   0.000     .4945534     .553957
     ------------------------------------------------------------------------------

2198 .         * RESULT:  Positive and statistically significant at the .01 level.
2199 . //
2200 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2201 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2202 . *       are parallel between control and treatment groups in the pretreatment period).
2203 . *    Statistical significance indicates that trends are not parallel.
2204 . quietly: chp9matchptrends

2205 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = .05261924   p-value = .82043306

2206 .         * RESULT: No evidence for violation of the parallel trends assumption.
2207 . //
2208 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2209 . *       Statistical significance indicates that effects are observed prior to treatment.
2210 . quietly: chp9matchgranger

2211 . quietly: mi query
```

```
2212 . quietly: local M = r(M)

2213 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .03859832   p-value = .96219433

2214 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2215 . //
2216 . * III) Grangerplot of lags and leads of the treatment time variable.
2217 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2218 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2219 . quietly: chp9matchgrangerplot

2220 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #70" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2221 . graph export Robustnesstestfiles\Logfiles\robch9graph70.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph70.pdf saved as PDF format

2222 .         * RESULT:  Lags are consistently positive and statistically significant, and relatively stable over time.
2223 . //
2224 . * IV) Test for the influence of alternative treatments in surrounding periods
2225 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2226 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
2227 . quietly: chp9matchalttreat

2228 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  v2x_gencs
------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------
ATET
treat              0.0783**
                   (3.39)
alttreat                          -0.00101        -0.00144          0.0502*         0.0265+
                                   (-0.17)         (-0.27)          (2.36)          (1.87)
------------------------------------------------------------------------------------------
Controls
treat                              0.0786**        0.0793**        0.0344+         0.0585**
                                   (3.37)          (3.34)          (1.96)          (3.30)
------------------------------------------------------------------------------------------
N                     946             946             946             946             946
------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2229 .         * RESULT:  Critical processes appear to take place at t+1 that turn treatment marginally significant.
2230 . //
2231 . * V) Lagged DV test
2232 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2233 . quietly: chp9matchdvlag

2234 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for v2x_gencs
------------------------------------------------------------------------------
                   No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat              0.0783**        0.0501*         0.0746**        0.0602**
                  (0.0231)        (0.0202)        (0.0229)        (0.0196)
------------------------------------------------------------------------------
Controls
laggeddv1                           0.300***                        0.355***
                                   (0.0593)                        (0.0515)
laggeddv2                                            0.108*        -0.0880*
                                                    (0.0484)        (0.0321)
------------------------------------------------------------------------------
N                     946             930             916             914
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2235 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical significance of treatment.
2236 .
2237 .
2238 . *==================================
2239 . * WOMEN'S POLITICAL PARTICIPATION
2240 . *==================================
2241 .
2242 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
2243 . use matcheddiffindifflong.dta, clear

2244 . global yvar = "v2x_genpp"
```

```
2245 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

2246 . global condvar = "success==1 & leftist==1"

2247 . quietly{

2248 . quietly: chp9matchmultimp

2249 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if leftist==1 & success==1 [pweight=freqwt],
     > fe cluster(revid)

2250 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

2251 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM Women's Political Participation Index") ylabel(.2(.1).5 ,format(%9.1fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched" 2
     >  "Successful social" )) note("Graph #71" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge))
     > plot2opts(msymbol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

2252 . graph export Robustnesstestfiles\Logfiles\robch9graph71.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph71.pdf saved as PDF format

2253 . //
2254 . // Testing for a statistically significant "treatment" effect
2255 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
2256 . quietly: mi passive: generate treat=0

2257 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2258 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.1186
                                                     Largest FMI       =     0.0429
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.49
                                                             avg       =       6.54
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
        v2x_genpp | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
       (1 vs 0)   |   .0628389   .0766177     0.82   0.441    -.1209154    .2465932
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1   |   .0027883   .0031883     0.87   0.413    -.0048582    .0104347
              2   |   .0024863   .0039803     0.62   0.554    -.0070765    .0120491
              3   |   .0266284   .0440571     0.60   0.566    -.0790349    .1322916
              4   |   .0440129   .0338355     1.30   0.237    -.0371358    .1251615
              5   |   .0740141   .0271388     2.73   0.031     .0089261    .1391021
              6   |   .0691256   .0271188     2.55   0.040     .0040857    .1341655
              7   |   .0660563   .0275515     2.40   0.050    -.0000213    .1321338
              8   |   .0818689   .0266772     3.07   0.020      .017888    .1458499
              9   |    .101509   .0325702     3.12   0.018      .023395     .179623
             10   |   .1151052   .0362821     3.17   0.017     .0280889    .2021216
                  |
           _cons  |   .2878932   .0340271     8.46   0.000     .2062852    .3695011
     ------------------------------------------------------------------------------

2259 .         * RESULT:  Positive but statistically insignificant.
2260 . //
2261 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2262 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2263 . *       are parallel between control and treatment groups in the pretreatment period).
2264 . *    Statistical significance indicates that trends are not parallel.
2265 . quietly: chp9matchptrends

2266 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 1.4173259   p-value = .26796918

2267 .         * RESULT: No evidence of violation of the parallel trends assumption
2268 . //
2269 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
```

```
2270 . *       Statistical significance indicates that effects are observed prior to treatment.
2271 . quietly: chp9matchgranger

2272 . quietly: mi query

2273 . quietly: local M = r(M)

2274 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 1.6372081   p-value = .25350334

2275 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2276 . //
2277 . * III) Grangerplot of lags and leads of the treatment time variable.
2278 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2279 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2280 . quietly: chp9matchgrangerplot

2281 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #72" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2282 . graph export Robustnesstestfiles\Logfiles\robch9graph72.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph72.pdf saved as PDF format

2283 .         * RESULT:  Lags are statistically insignificant, positive, and relatively stable.
2284 . //
2285 . * IV) Test for the influence of alternative treatments in surrounding periods
2286 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2287 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
2288 . quietly: chp9matchalttreat

2289 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  v2x_genpp
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat              0.0628
                   (0.82)
alttreat                        -0.00904        -0.00442          0.0688          0.0507
                                 (-1.36)         (-0.91)          (1.00)          (0.89)
------------------------------------------------------------------------------------------------
Controls
treat                             0.0659          0.0658         0.00267          0.0248
                                  (0.86)          (0.86)          (0.03)          (0.35)
------------------------------------------------------------------------------------------------
N                     374             374             374             374             374
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2290 .         * RESULT:  No evidence that alternative treatments at work.
2291 . //
2292 . * V) Lagged DV test
2293 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2294 . quietly: chp9matchdvlag

2295 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for v2x_genpp
------------------------------------------------------------------------------
                    No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat              0.0628          0.0321          0.0435          0.0338
                  (0.0766)        (0.0443)        (0.0596)        (0.0461)
------------------------------------------------------------------------------
Controls
laggeddv1                          0.382***                        0.417**
                                  (0.0479)                        (0.0757)
laggeddv2                                           0.193*         -0.0471
                                                   (0.0764)        (0.0864)
------------------------------------------------------------------------------
N                     374             373             373             372
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2296 .         * RESULT: Evidence for AR1 processes that do not affect the statistical insignificance of treatment.
2297 .
2298 .
2299 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
2300 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

2301 . global condvar = "success==1 & urbancivic==1"
```

```
2302 . quietly: mi estimate, post dots saving(miest, replace):  xtreg $yvar i.revny##ib(2).year if urbancivic==1 & success==1 [pweight=freqwt
     > ], fe cluster(revid)

2303 . quietly: mimrgns, at(revny=(0 1) year=(0 1 2 3 4 5 6 7 8 9 10)) predict(xb) noatlegend noestimcheck cmdmargins

2304 . * Marginsplot for visualizing trends
2305 . marginsplot, xdimension(year) noci xlabel(0 "t-3" 1 "t-2" 2 "t-1" 3 "Rev" 4 "t+1" 5 "t+2" 6 "t+3" 7 "t+4" 8 "t+5" 9 "t+6" 10 "t+7") yt
     > itle("VDEM Women's Political Participation Index") ylabel(.5(.05).7 , format(%9.2fc) angle(0)) legend(pos(6) cols(2) order(1 "Matched"
     >  2 "Succ urban civic" )) note("Graph #73" , span) title("`titvar1'" "Avg marginal predictions") plot1opts(msymbol(Oh) msize(medlarge))
     >  plot2opts(msymbol(O) msize(medlarge))

     Variables that uniquely identify margins: revny year

2306 . graph export Robustnesstestfiles\Logfiles\robch9graph73.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph73.pdf saved as PDF format

2307 . //
2308 . // Testing for a statistically significant "treatment" effect
2309 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
2310 . quietly: mi passive: replace treat=0

2311 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2312 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        924
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.1133
                                                     Largest FMI       =     0.0336
                                                     Complete DF       =         25
     DF adjustment:   Small sample                   DF:     min       =      22.56
                                                             avg       =      22.96
     Within VCE type:       Robust                           max       =      23.21

                                  (Within VCE adjusted for 26 clusters in revid)
     ------------------------------------------------------------------------------
        v2x_genpp | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |   .0135946   .0296504     0.46   0.651    -.0478081    .0749973
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1   |   .0042005   .0035668     1.18   0.251    -.0031742    .0115752
              2   |   .0136824    .007765     1.76   0.091    -.0023724    .0297373
              3   |   .0147882   .0226546     0.65   0.520    -.0320828    .0616591
              4   |   .0577976   .0218298     2.65   0.014     .0126307    .1029645
              5   |   .0641634    .024212     2.65   0.014     .0140844    .1142425
              6   |   .0684892   .0226468     3.02   0.006     .0216456    .1153328
              7   |   .0699641   .0258275     2.71   0.012     .0165499    .1233782
              8   |   .0630755   .0252814     2.49   0.020     .0107611      .11539
              9   |   .0869757   .0292722     2.97   0.007     .0263608    .1475907
             10   |   .1021292   .0313408     3.26   0.003     .0372586    .1669998
                  |
            _cons |   .6267899   .0118215    53.02   0.000     .6023477    .6512321
     ------------------------------------------------------------------------------

2313 .         * RESULT:  Positive but statistically insignificant.
2314 . //
2315 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2316 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2317 . *       are parallel between control and treatment groups in the pretreatment period).
2318 . *    Statistical significance indicates that trends are not parallel.
2319 . quietly: chp9matchptrends

2320 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = .31698071   p-value = .57844267

2321 .         * RESULT: No evidence for violation of the parallel trends assumption.
2322 . //
2323 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2324 . *       Statistical significance indicates that effects are observed prior to treatment.
2325 . quietly: chp9matchgranger

2326 . quietly: mi query

2327 . quietly: local M = r(M)
```

```
2328 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = .18238929   p-value = .83437573

2329 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2330 . //
2331 . * III) Grangerplot of lags and leads of the treatment time variable.
2332 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2333 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2334 . quietly: chp9matchgrangerplot

2335 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #74" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2336 . graph export Robustnesstestfiles\Logfiles\robch9graph74.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph74.pdf saved as PDF format

2337 .         * RESULT:  Lags are statistically insignificant and generally growing more positive over time.
2338 . //
2339 . * IV) Test for the influence of alternative treatments in surrounding periods
2340 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2341 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
2342 . quietly: chp9matchalttreat

2343 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  v2x_genpp
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat              0.0136
                        (0.46)
     alttreat                          0.00376         0.00526          0.0882**        0.0556*
                                        (0.59)          (0.47)          (2.90)          (2.83)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                              0.0123          0.0101         -0.0636         -0.0281
                                        (0.40)          (0.30)         (-1.64)         (-0.86)
     ------------------------------------------------------------------------------------------------
     N                        924             924             924             924             924
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2344 .         * RESULT:  Alternative treatments at t+1 and t+2, but have no effect on the statistical insignificance of treatment.
2345 . //
2346 . * V) Lagged DV test
2347 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2348 . quietly: chp9matchdvlag

2349 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for v2x_genpp
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat              0.0136          0.0175          0.0217          0.0221
                       (0.0297)        (0.0205)        (0.0252)        (0.0187)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                          0.347***                        0.364***
                                       (0.0518)                        (0.0699)
     laggeddv2                                           0.0912*         -0.0858+
                                                        (0.0358)        (0.0422)
     ------------------------------------------------------------------------------
     N                        924             908             894             892
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2350 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical significance of treatment.
2351 .
2352 .
2353 . *=========================================
2354 . * EFFECT OF REVOLUTION ON POLITICAL KILLING
2355 . *=========================================
2356 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE, AND VISUAL RESULTS
2357 . *       PRESENTED IN FIGURE 9.10
2358 . * Will test for treatment effects and check treatment effect estimation assumptions
2359 .
2360 . * SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
2361 . use matcheddiffindifflong.dta, clear

2362 . global yvar = "vdclkill"
```

```
2363 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

2364 . global condvar = "success==1 & leftist==1"

2365 . quietly{

2366 . quietly: chp9matchmultimp

2367 . //
2368 . // Testing for a statistically significant "treatment" effect
2369 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
2370 . quietly: mi passive: generate treat=0

2371 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2372 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
         vdclkill | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |   .1082384    .460596     0.23   0.821    -.9964197    1.212897
     -------------+----------------------------------------------------------------
     Controls     |
             year |
               1  |   .0246046     .01334     1.84   0.111    -.0073891    .0565983
               2  |    .014198   .0240836     0.59   0.575    -.0435623    .0719584
               3  |   -.074204   .1730079    -0.43   0.682    -.4891328    .3407248
               4  |   .0459419    .125251     0.37   0.725    -.2544505    .3463343
               5  |    .074467   .1248946     0.60   0.571    -.2250707    .3740047
               6  |   .0719179   .1360092     0.53   0.614    -.2542762     .398112
               7  |   .0088874   .1447234     0.06   0.953    -.3382062     .355981
               8  |  -.0272697   .1395424    -0.20   0.851    -.3619375     .307398
               9  |  -.0523246   .1432932    -0.37   0.727     -.395988    .2913389
              10  |  -.0386258   .1387716    -0.28   0.789    -.3714449    .2941933
                  |
            _cons |   1.450289    .170296     8.52   0.000     1.041864    1.858714
     ------------------------------------------------------------------------------

2373 .         * RESULT:  Positive but statistically insignificant.
2374 . //
2375 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2376 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2377 . *       are parallel between control and treatment groups in the pretreatment period).
2378 . *    Statistical significance indicates that trends are not parallel.
2379 . quietly: chp9matchptrends

2380 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 6.9344258   p-value = .03002258

2381 .         * RESULT: Statistically significant evidence (at the .05 level) of violations of the parallel trends assumption
2382 . //
2383 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2384 . *       Statistical significance indicates that effects are observed prior to treatment.
2385 . quietly: chp9matchgranger

2386 . quietly: mi query

2387 . quietly: local M = r(M)

2388 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 3.7369509   p-value = .07144315

2389 .         * RESULT: Marginally significant evidence (at the .10 level) that the effects were observed prior to treatment.
2390 .         *       Treatment likely related to levels of political killing.
2391 . //
2392 . * III) Grangerplot of lags and leads of the treatment time variable.
2393 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
```

```
2394 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2395 . quietly: chp9matchgrangerplot

2396 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #75" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2397 . graph export Robustnesstestfiles\Logfiles\robch9graph75.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph75.pdf saved as PDF format

2398 .         * RESULT:  Lags are statistically insignificant, positive, and relatively stable.
2399 . //
2400 . * IV) Test for the influence of alternative treatments in surrounding periods
2401 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2402 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
2403 . quietly: chp9matchalttreat

2404 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  vdclkill
     ------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------
     ATET
     treat                0.108
                         (0.23)
     alttreat                        -0.0692*        -0.0724+          0.398           0.225
                                     (-2.65)         (-2.14)          (0.97)          (1.11)
     ------------------------------------------------------------------------------------------
     Controls
     treat                              0.131           0.156          -0.240         -0.0607
                                       (0.29)          (0.34)         (-0.95)         (-0.17)
     ------------------------------------------------------------------------------------------
     N                     374             374             374             374             374
     ------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2405 .         * RESULT:  Alternative treatments may be at work prior to revolution, but do not affect the statistical insignificance of trea
     > tment.
2406 . //
2407 . * V) Lagged DV test
2408 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2409 . quietly: chp9matchdvlag

2410 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdclkill
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat                0.108           0.248           0.276           0.176
                         (0.461)         (0.263)         (0.409)         (0.272)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                           0.546***                        0.665***
                                        (0.0496)                        (0.0458)
     laggeddv2                                            0.264*         -0.160*
                                                         (0.0873)        (0.0659)
     ------------------------------------------------------------------------------
     N                     374             374             374             374
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2411 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical insignificance of treatment.
2412 .
2413 .
2414 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
2415 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

2416 . global condvar = "success==1 & urbancivic==1"

2417 . //
2418 . // Testing for a statistically significant "treatment" effect
2419 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
2420 . quietly: mi passive: replace treat=0

2421 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2422 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done
```

```
Multiple-imputation estimates                   Imputations       =         10
                                                Number of obs     =        946
Group variable:
                                                Number of groups  =          .
                                                Obs per group:
                                                              min =          .
                                                              avg =          .
                                                              max =          .
                                                Average RVI       =     0.0979
                                                Largest FMI       =     0.0511
                                                Complete DF       =         25
DF adjustment:   Small sample                   DF:     min       =      22.12
                                                        avg       =      22.87
Within VCE type:       Robust                           max       =      23.21

                                (Within VCE adjusted for 26 clusters in revid)
------------------------------------------------------------------------------
    vdclkill | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |    .767842   .1416089     5.42   0.000     .4748301    1.060854
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |  -.0006727   .0167112    -0.04   0.968    -.0352249    .0338795
          2  |    -.03215   .0532229    -0.60   0.552    -.1421938    .0778938
          3  |  -.2780807   .1113182    -2.50   0.020    -.5083107   -.0478507
          4  |   .0851276   .0673627     1.26   0.219    -.0542684    .2245236
          5  |   .0719125   .0705071     1.02   0.318     -.074034     .217859
          6  |    .040846   .0717643     0.57   0.575    -.1076046    .1892966
          7  |   .0491895   .0809795     0.61   0.550    -.1183488    .2167278
          8  |   .0230977   .0818816     0.28   0.780    -.1463666    .1925621
          9  |   .0317378    .081649     0.39   0.701    -.1374798    .2009555
         10  |   .0983695   .1037287     0.95   0.353     -.116681      .31342
             |
       _cons |   1.878907   .0785176    23.93   0.000     1.716563     2.04125
------------------------------------------------------------------------------

2423 .         * RESULT:  Positive and statistically significant at the .001 level.
2424 . //
2425 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2426 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2427 . *       are parallel between control and treatment groups in the pretreatment period).
2428 . *    Statistical significance indicates that trends are not parallel.
2429 . quietly: chp9matchptrends

2430 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .62865963   p-value = .43530788

2431 .         * RESULT: No evidence for violation of the parallel trends assumption.
2432 . //
2433 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2434 . *       Statistical significance indicates that effects are observed prior to treatment.
2435 . quietly: chp9matchgranger

2436 . quietly: mi query

2437 . quietly: local M = r(M)

2438 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 1.2207352   p-value = .31200237

2439 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2440 . //
2441 . * III) Grangerplot of lags and leads of the treatment time variable.
2442 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2443 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2444 . quietly: chp9matchgrangerplot

2445 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #76" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2446 . graph export Robustnesstestfiles\Logfiles\robch9graph76.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph76.pdf saved as PDF format

2447 .         * RESULT:  Lags are positive, statistically significant, and relatively stable over time.
2448 . //
2449 . * IV) Test for the influence of alternative treatments in surrounding periods
2450 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2451 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
2452 . quietly: chp9matchalttreat

2453 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdclkill
------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------
ATET
treat              0.768***
                  (5.42)
alttreat                          -0.0916         -0.0150           0.473*          0.230
                                  (-1.29)         (-0.20)          (2.53)          (1.67)
------------------------------------------------------------------------------------------
Controls
treat                               0.798***        0.778***        0.354*          0.595***
                                   (5.41)          (5.00)          (2.32)          (4.54)
```

```
------------------------------------------------------------------------------------------------
N                     946             946             946             946             946
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
2454 .         * RESULT:  Alternative treatments at t+1 is statistically significant, but does not affect the statistical significance of tre
     > atment.
2455 .         *       Implies that some of the effect may occur in the first year after revolution as well.
2456 . //
2457 . * V) Lagged DV test
2458 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2459 . quietly: chp9matchdvlag

2460 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdclkill
     ------------------------------------------------------------------------------
                       No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat               0.768***        0.536***        0.791***        0.586***
                        (0.142)         (0.123)         (0.133)         (0.115)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                           0.399***                        0.460***
                                        (0.0601)                        (0.0518)
     laggeddv2                                            0.142*         -0.108**
                                                         (0.0554)        (0.0295)
     ------------------------------------------------------------------------------
     N                     946             930             916             914
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
2461 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical significance of treatment.
2462 .
2463 .
2464 . *=====================================================
2465 . * EFFECT OF REVOLUTION ON POLITICAL CIVIL LIBERTIES
2466 . *=====================================================
2467 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE, AND VISUAL RESULTS
2468 . *       PRESENTED IN FIGURE 9.11
2469 . * Will test for treatment effects and check treatment effect estimation assumptions
2470 .
2471 . * SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
2472 . use matcheddiffindifflong.dta, clear

2473 . global yvar = "vdpolitlib"

2474 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

2475 . global condvar = "success==1 & leftist==1"

2476 . quietly{

2477 . quietly: chp9matchmultimp

2478 . //
2479 . // Testing for a statistically significant "treatment" effect
2480 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
2481 . quietly: mi passive: generate treat=0

2482 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2483 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                       (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
       vdpolitlib | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |  -.0443872   .1038819    -0.43   0.683    -.2935297    .2047553
     -------------+----------------------------------------------------------------
     Controls     |
             year |
               1  |  -.0019066    .002157    -0.88   0.408    -.0070798    .0032666
               2  |  -.0030047   .0030496    -0.99   0.359    -.0103186    .0043092
               3  |    .048584   .0467413     1.04   0.335    -.0635168    .1606848
               4  |   .0396797   .0358807     1.11   0.308    -.0463738    .1257332
```

```
           5  |    .032425   .0365636     0.89   0.407    -.0552664    .1201164
           6  |   .0205585   .0387801     0.53   0.614    -.0724487    .1135656
           7  |  -.0006452   .0431712    -0.01   0.989    -.1041838    .1028934
           8  |  -.0135845   .0493988    -0.27   0.792    -.1320587    .1048897
           9  |  -.0187893   .0499579    -0.38   0.719    -.1386045    .1010258
          10  |  -.0201015   .0504594    -0.40   0.703    -.1411194    .1009164
              |
       _cons |   .3463219   .0544844     6.36   0.001     .2156507    .4769932
------------------------------------------------------------------------------

2484 .         * RESULT:  Negative but statistically insignificant.
2485 . //
2486 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2487 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2488 . *       are parallel between control and treatment groups in the pretreatment period).
2489 . *    Statistical significance indicates that trends are not parallel.
2490 . quietly: chp9matchptrends

2491 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 3.0507022   p-value = .11884115

2492 .         * RESULT: No statistically significant evidence of the parallel trends assumption
2493 . //
2494 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2495 . *       Statistical significance indicates that effects are observed prior to treatment.
2496 . quietly: chp9matchgranger

2497 . quietly: mi query

2498 . quietly: local M = r(M)

2499 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 2.5175899   p-value = .14187041

2500 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2501 . //
2502 . * III) Grangerplot of lags and leads of the treatment time variable.
2503 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2504 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2505 . quietly: chp9matchgrangerplot

2506 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #77" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2507 . graph export Robustnesstestfiles\Logfiles\robch9graph77.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph77.pdf saved as PDF format

2508 .         * RESULT:  Lags are statistically insignificant, negative, and relatively stable.
2509 . //
2510 . * IV) Test for the influence of alternative treatments in surrounding periods
2511 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2512 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
2513 . quietly: chp9matchalttreat

2514 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdpolitlib
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat             -0.0444
                  (-0.43)
alttreat                          -0.0155+         -0.0161         -0.0107         0.00321
                                  (-1.92)         (-1.59)         (-0.15)          (0.07)
------------------------------------------------------------------------------------------------
Controls
treat                             -0.0392         -0.0336         -0.0350         -0.0468
                                  (-0.38)         (-0.33)         (-0.52)         (-0.55)
------------------------------------------------------------------------------------------------
N                     374             374             374             374             374
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2515 .         * RESULT:  No alternative treatments that affect the statistical insignificance of treatment.
2516 . //
2517 . * V) Lagged DV test
2518 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2519 . quietly: chp9matchdvlag

2520 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for vdpolitlib
------------------------------------------------------------------------------
                  No lag            AR 1            AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat             -0.0444          0.0104         -0.0196         -0.0143
                  (0.104)        (0.0691)        (0.0963)        (0.0668)
------------------------------------------------------------------------------
Controls
laggeddv1                          0.467***                        0.625***
                                 (0.0544)                        (0.0567)
laggeddv2                                            0.133+         -0.231***
                                                   (0.0675)        (0.0321)
------------------------------------------------------------------------------
```

```
N                     374             374             374             374
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
2521 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical insignificance of treatment.
2522 .
2523 .
2524 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
2525 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

2526 . global condvar = "success==1 & urbancivic==1"

2527 . //
2528 . // Testing for a statistically significant "treatment" effect
2529 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
2530 . quietly: mi passive: replace treat=0

2531 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2532 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
> r) vce(cluster revid)

Imputations (10):
  .........10 done

Multiple-imputation estimates                   Imputations       =         10
                                                Number of obs     =        946
Group variable:
                                                Number of groups  =          .
                                                Obs per group:
                                                              min =          .
                                                              avg =          .
                                                              max =          .
                                                Average RVI       =     0.1120
                                                Largest FMI       =     0.0184
                                                Complete DF       =         25
DF adjustment:   Small sample                   DF:     min       =      22.92
                                                        avg       =      23.14
Within VCE type:       Robust                           max       =      23.21

                                (Within VCE adjusted for 26 clusters in revid)
------------------------------------------------------------------------------
  vdpolitlib | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |    .244416   .0441461     5.54   0.000     .1531057    .3357262
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   .0023404   .0033406     0.70   0.491    -.0045665    .0092474
          2  |   .0061034   .0078246     0.78   0.443    -.0100747    .0222816
          3  |  -.0236234   .0316158    -0.75   0.462    -.0890038     .041757
          4  |   .1092318   .0395406     2.76   0.011     .0274683    .1909954
          5  |   .1162208   .0429632     2.71   0.013      .027377    .2050645
          6  |    .110772   .0471387     2.35   0.028     .0133022    .2082419
          7  |   .1071649   .0480649     2.23   0.036     .0077775    .2065523
          8  |   .0994119   .0497314     2.00   0.057    -.0034294    .2022531
          9  |     .09408   .0502154     1.87   0.074    -.0097804    .1979404
         10  |   .1019916   .0509545     2.00   0.057    -.0034365    .2074197
             |
        cons |   .4068155   .0365735    11.12   0.000      .331196    .4824349
------------------------------------------------------------------------------
```

```
2533 .         * RESULT:  Positive and statistically significant at the .001 level.
2534 . //
2535 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2536 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2537 . *       are parallel between control and treatment groups in the pretreatment period).
2538 . *    Statistical significance indicates that trends are not parallel.
2539 . quietly: chp9matchptrends

2540 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 3.5342034   p-value = .0718177

2541 .         * RESULT: Marginally statistically significant evidence (at the .10 level) for violation of the parallel trends assumption.
2542 . //
2543 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2544 . *       Statistical significance indicates that effects are observed prior to treatment.
2545 . quietly: chp9matchgranger

2546 . quietly: mi query

2547 . quietly: local M = r(M)

2548 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 2.1588483   p-value = .13649823
```

```
2549 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2550 . //
2551 . * III) Grangerplot of lags and leads of the treatment time variable.
2552 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2553 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2554 . quietly: chp9matchgrangerplot

2555 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #78" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2556 . graph export Robustnesstestfiles\Logfiles\robch9graph78.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph78.pdf saved as PDF format

2557 .         * RESULT:  Lags are positive, statistically significant, though slightly declining over time.
2558 . //
2559 . * IV) Test for the influence of alternative treatments in surrounding periods
2560 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2561 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
2562 . quietly: chp9matchalttreat

2563 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  vdpolitlib
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat               0.244***
                        (5.54)
     alttreat                          -0.0118         -0.0177+          0.193***       0.0809*
                                       (-1.61)         (-2.02)          (4.08)          (2.38)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                               0.248***        0.256***       0.0758+          0.184***
                                        (5.60)          (5.71)          (1.83)          (5.17)
     ------------------------------------------------------------------------------------------------
     N                      946             946             946             946             946
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2564 .         * RESULT:  Alternative treatment at t+1 is statistically significant and turns the statistical significance of treatment margi
     > nally significant (at the .10 level).
2565 .         *       Implies that much of the effect is only evident in the first year after revolution.
2566 . //
2567 . * V) Lagged DV test
2568 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2569 . quietly: chp9matchdvlag

2570 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdpolitlib
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat                0.244***        0.132***        0.222***        0.152***
                         (0.0441)        (0.0319)        (0.0388)        (0.0307)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                            0.540***                        0.616***
                                         (0.0518)                        (0.0496)
     laggeddv2                                            0.261***       -0.127***
                                                         (0.0545)        (0.0268)
     ------------------------------------------------------------------------------
     N                      946             930             916             914
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2571 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical significance of treatment.
2572 .
2573 .
2574 . *================================================
2575 . * EFFECT OF REVOLUTION ON PRIVATE CIVIL LIBERTIES
2576 . *================================================
2577 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE, AND VISUAL RESULTS
2578 . *       PRESENTED IN FIGURE 9.12
2579 . * Will test for treatment effects and check treatment effect estimation assumptions
2580 .
2581 . // SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
2582 . use matcheddiffindifflong.dta, clear

2583 . global yvar = "vdclpriv"
```

```
2584 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

2585 . global condvar = "success==1 & leftist==1"

2586 . quietly{

2587 . quietly: chp9matchmultimp

2588 . //
2589 . // Testing for a statistically significant "treatment" effect
2590 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
2591 . quietly: mi passive: generate treat=0

2592 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2593 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
         vdclpriv | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |  -.0840937   .0890098    -0.94   0.378    -.2975679    .1293804
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1   |   .0010163   .0031411     0.32   0.756    -.0065171    .0085497
              2   |   .0010346   .0032681     0.32   0.761    -.0068035    .0088726
              3   |   .0684767   .0248101     2.76   0.030     .0089742    .1279793
              4   |   .0631124   .0348503     1.81   0.116    -.0204699    .1466947
              5   |   .0615892   .0359591     1.71   0.133    -.0246524    .1478307
              6   |   .0543216   .0376525     1.44   0.195    -.0359813    .1446245
              7   |   .0546773   .0377592     1.45   0.194    -.0358815    .1452361
              8   |   .0454242    .036506     1.24   0.256    -.0421289    .1329774
              9   |   .0345143   .0371805     0.93   0.386    -.0546566    .1236853
             10   |   .0305821   .0381465     0.80   0.451    -.0609054    .1220696
                  |
            _cons |   .3812441   .0504237     7.56   0.000     .2603117    .5021764
     ------------------------------------------------------------------------------

2594 .         * RESULT:  Negative but statistically insignificant.
2595 . //
2596 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2597 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2598 . *       are parallel between control and treatment groups in the pretreatment period).
2599 . *    Statistical significance indicates that trends are not parallel.
2600 . quietly: chp9matchptrends

2601 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 3.3575196   p-value = .10426039

2602 .         * RESULT: No statistically significant evidence of the parallel trends assumption
2603 . //
2604 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2605 . *       Statistical significance indicates that effects are observed prior to treatment.
2606 . quietly: chp9matchgranger

2607 . quietly: mi query

2608 . quietly: local M = r(M)

2609 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 2.0887455   p-value = .1862639

2610 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2611 . //
2612 . * III) Grangerplot of lags and leads of the treatment time variable.
2613 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2614 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
```

```
2615 . quietly: chp9matchgrangerplot

2616 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #79" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2617 . graph export Robustnesstestfiles\Logfiles\robch9graph79.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph79.pdf saved as PDF format

2618 .         * RESULT:  Lags are statistically insignificant, negative, and grow increasingly negative over time.
2619 . //
2620 . * IV) Test for the influence of alternative treatments in surrounding periods
2621 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2622 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
2623 . quietly: chp9matchalttreat

2624 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  vdclpriv
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat              -0.0841
                        (-0.94)
     alttreat                        -0.00997        -0.00646+        -0.0557         -0.0489
                                      (-1.71)         (-1.99)         (-0.99)         (-1.46)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                            -0.0808         -0.0798         -0.0354         -0.0474
                                      (-0.91)         (-0.90)         (-0.64)         (-0.67)
     ------------------------------------------------------------------------------------------------
     N                         374             374             374             374             374
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2625 .         * RESULT:  No alternative treatments that affect the statistical insignificance of treatment.
2626 . //
2627 . * V) Lagged DV test
2628 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2629 . quietly: chp9matchdvlag

2630 . esttab , se drop(*.year  cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdclpriv
     ------------------------------------------------------------------------
                       No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------
     ATET
     treat             -0.0841         -0.0108         -0.0467         -0.0349
                      (0.0890)        (0.0589)        (0.0739)        (0.0530)
     ------------------------------------------------------------------------
     Controls
     laggeddv1                        0.461***                        0.607**
                                     (0.0679)                         (0.109)
     laggeddv2                                         0.161**         -0.204*
                                                      (0.0410)        (0.0710)
     ------------------------------------------------------------------------
     N                         374             374             374             374
     ------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2631 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical insignificance of treatment.
2632 .
2633 .
2634 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
2635 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

2636 . global condvar = "success==1 & urbancivic==1"

2637 . //
2638 . // Testing for a statistically significant "treatment" effect
2639 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
2640 . quietly: mi passive: replace treat=0

2641 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2642 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        946
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                   min =          .
                                                                   avg =          .
                                                                   max =          .
                                                     Average RVI       =     0.1762
                                                     Largest FMI       =     0.0211
                                                     Complete DF       =         25
     DF adjustment:   Small sample                   DF:     min       =      22.86
                                                             avg       =      23.12
```

```
Within VCE type:       Robust                          max       =      23.21

                                (Within VCE adjusted for 26 clusters in revid)
------------------------------------------------------------------------------
    vdclpriv | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |   .1275554   .0347602     3.67   0.001     .0556592    .1994515
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   .0024379   .0015417     1.58   0.127    -.0007497    .0056256
          2  |   .0029043   .0033397     0.87   0.393    -.0040008    .0098095
          3  |  -.0052214   .0202804    -0.26   0.799    -.0471644    .0367215
          4  |   .0515613   .0239411     2.15   0.042     .0020512    .1010713
          5  |   .0550717   .0245418     2.24   0.035     .0043174    .1058259
          6  |   .0638346   .0307942     2.07   0.049      .000161    .1275081
          7  |   .0678577   .0308835     2.20   0.038      .003999    .1317164
          8  |   .0677463   .0309136     2.19   0.039     .0038204    .1316722
          9  |   .0665311   .0314109     2.12   0.045     .0015529    .1315094
         10  |   .0733856   .0334403     2.19   0.039     .0041853     .142586
             |
       _cons |   .5278914   .0261358    20.20   0.000     .4738531    .5819298
------------------------------------------------------------------------------

2643 .         * RESULT:  Positive and statistically significant at the .001 level.
2644 . //
2645 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2646 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2647 . *       are parallel between control and treatment groups in the pretreatment period).
2648 . *    Statistical significance indicates that trends are not parallel.
2649 . quietly: chp9matchptrends

2650 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 4.2696872   p-value = .0493057

2651 .         * RESULT: Statistically significant evidence (at the .05 level) for violation of the parallel trends assumption.
2652 . //
2653 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2654 . *       Statistical significance indicates that effects are observed prior to treatment.
2655 . quietly: chp9matchgranger

2656 . quietly: mi query

2657 . quietly: local M = r(M)

2658 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 2.883553   p-value = .07467358

2659 .         * RESULT: Marginally significant evidence (at the .10 level) that the effects were observed prior to treatment.
2660 .         *       Treatment likely related to private civil liberties.
2661 . //
2662 . * III) Grangerplot of lags and leads of the treatment time variable.
2663 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2664 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2665 . quietly: chp9matchgrangerplot

2666 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #80" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2667 . graph export Robustnesstestfiles\Logfiles\robch9graph80.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph80.pdf saved as PDF format

2668 .         * RESULT:  Lags are positive, statistically significant, though declining over time.
2669 . //
2670 . * IV) Test for the influence of alternative treatments in surrounding periods
2671 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2672 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
2673 . quietly: chp9matchalttreat

2674 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdclpriv
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat              0.128**
                  (3.67)
alttreat                       -0.00760+        -0.0122*         0.0653+         0.0203
                                (-1.73)         (-2.26)          (2.00)          (0.83)
------------------------------------------------------------------------------------------------
Controls
treat                             0.130**         0.136***        0.0704*          0.112***
                                 (3.72)          (3.85)          (2.69)          (3.98)
------------------------------------------------------------------------------------------------
N                     946             946             946             946             946
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
2675 .         * RESULT:  Alternative treatment at t-1 is statistically significant but does not alter the statistical significance of treatm
     > ent.
2676 . //
2677 . * V) Lagged DV test
2678 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2679 . quietly: chp9matchdvlag

2680 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdclpriv
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat               0.128**        0.0725**         0.129***       0.0941***
                        (0.0348)        (0.0258)        (0.0329)        (0.0240)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                           0.460***                        0.540***
                                        (0.0657)                        (0.0634)
     laggeddv2                                            0.183**        -0.138***
                                                         (0.0582)        (0.0344)
     ------------------------------------------------------------------------------
     N                     946             930             916             914
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2681 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical significance of treatment.
2682 .
2683 .
2684 . *=========================================
2685 . * EFFECT OF REVOLUTION ON THE RULE OF LAW
2686 . *=========================================
2687 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE, AND VISUAL RESULTS
2688 . *       PRESENTED IN FIGURE 9.13
2689 . * Will test for treatment effects and check treatment effect estimation assumptions
2690 .
2691 . * SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
2692 . use matcheddiffindifflong.dta, clear

2693 . global yvar = "vdrule"

2694 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

2695 . global condvar = "success==1 & leftist==1"

2696 . quietly{

2697 . quietly: chp9matchmultimp

2698 . //
2699 . // Testing for a statistically significant "treatment" effect
2700 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
2701 . quietly: mi passive: generate treat=0

2702 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2703 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                    (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
           vdrule | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |  -.0035438   .0685614    -0.05   0.960    -.1679762    .1608885
     -------------+----------------------------------------------------------------
     Controls     |
            year  |
              1   |  -.0007633   .0006873    -1.11   0.306    -.0024116     .000885
              2   |  -.0026296   .0022374    -1.18   0.281    -.0079956    .0027364
              3   |   .0276227   .0371728     0.74   0.483    -.0615297     .116775
              4   |   .0376293   .0296638     1.27   0.248    -.0335142    .1087727
              5   |    .036649   .0306778     1.19   0.274    -.0369263    .1102242
              6   |   .0359307   .0318937     1.13   0.300    -.0405607    .1124222
              7   |   .0289676   .0319628     0.91   0.397    -.0476896    .1056248
              8   |   .0159901   .0330227     0.48   0.644    -.0632091    .0951892
              9   |   .0136451   .0339324     0.40   0.700    -.0677357    .0950259
             10   |   .0144413   .0340856     0.42   0.685    -.0673071    .0961897
                  |
```

```
       _cons |   .3262222   .0333501     9.78   0.000      .246238    .4062065
------------------------------------------------------------------------------

2704 .         * RESULT:  Negative but statistically insignificant.
2705 . //
2706 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2707 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2708 . *       are parallel between control and treatment groups in the pretreatment period).
2709 . *    Statistical significance indicates that trends are not parallel.
2710 . quietly: chp9matchptrends

2711 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .0251996   p-value = .87780494

2712 .         * RESULT: No statistically significant evidence of the parallel trends assumption
2713 . //
2714 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2715 . *       Statistical significance indicates that effects are observed prior to treatment.
2716 . quietly: chp9matchgranger

2717 . quietly: mi query

2718 . quietly: local M = r(M)

2719 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .53146655   p-value = .60713441

2720 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2721 . //
2722 . * III) Grangerplot of lags and leads of the treatment time variable.
2723 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2724 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2725 . quietly: chp9matchgrangerplot

2726 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #81" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2727 . graph export Robustnesstestfiles\Logfiles\robch9graph81.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph81.pdf saved as PDF format

2728 .         * RESULT:  Lags are statistically insignificant and hover around zero.
2729 . //
2730 . * IV) Test for the influence of alternative treatments in surrounding periods
2731 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2732 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
2733 . quietly: chp9matchalttreat

2734 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdrule
------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------
ATET
treat            -0.00354
                  (-0.05)
alttreat                         0.00115        -0.00222          0.0223         0.00932
                                  (0.33)         (-0.56)          (0.38)          (0.27)
------------------------------------------------------------------------------------------
Controls
treat                            -0.00393        -0.00207         -0.0231         -0.0105
                                  (-0.06)         (-0.03)         (-0.66)         (-0.22)
------------------------------------------------------------------------------------------
N                    374             374             374             374             374
------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2735 .         * RESULT:  No alternative treatments that affect the statistical insignificance of treatment.
2736 . //
2737 . * V) Lagged DV test
2738 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2739 . quietly: chp9matchdvlag

2740 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
> e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

Testing for the possible effect of lagged values of the dependent variable for vdrule
------------------------------------------------------------------------------
                   No lag           AR 1           AR 2          AR 1,2
------------------------------------------------------------------------------
ATET
treat            -0.00354         0.0278         0.0206         0.0159
                 (0.0686)       (0.0485)       (0.0659)       (0.0510)
------------------------------------------------------------------------------
Controls
laggeddv1                         0.364**                        0.452**
                                (0.0774)                       (0.0810)
laggeddv2                                         0.144         -0.117
                                                (0.0841)       (0.0643)
------------------------------------------------------------------------------
N                    374             374             374             374
------------------------------------------------------------------------------
Standard errors in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

```
2741 .         * RESULT: Evidence for AR1 processes that do not affect the statistical insignificance of treatment.
2742 .
2743 .
2744 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
2745 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

2746 . global condvar = "success==1 & urbancivic==1"

2747 . //
2748 . // Testing for a statistically significant "treatment" effect
2749 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
2750 . quietly: mi passive: replace treat=0

2751 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2752 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        946
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.1689
                                                     Largest FMI       =     0.1004
                                                     Complete DF       =         25
     DF adjustment:   Small sample                   DF:     min       =      20.79
                                                             avg       =      22.70
     Within VCE type:       Robust                           max       =      23.21

                                    (Within VCE adjusted for 26 clusters in revid)
     ------------------------------------------------------------------------------
           vdrule | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |   .1618993   .0379154     4.27   0.000     .0834803    .2403182
     -------------+----------------------------------------------------------------
     Controls     |
             year |
               1  |   .0027343   .0024849     1.10   0.282    -.0024035    .0078722
               2  |   .0033051   .0039436     0.84   0.411    -.0048487    .0114588
               3  |  -.0218874   .0140447    -1.56   0.133    -.0509433    .0071686
               4  |   .0143802    .014889     0.97   0.344    -.0164205    .0451809
               5  |   .0295384   .0128941     2.29   0.032     .0028527    .0562241
               6  |   .0273926   .0130977     2.09   0.048     .0002994    .0544859
               7  |   .0287063   .0132371     2.17   0.041     .0013234    .0560892
               8  |   .0258319   .0134746     1.92   0.068    -.0020646    .0537284
               9  |   .0229387   .0135488     1.69   0.105    -.0052017    .0510791
              10  |   .0254434   .0153304     1.66   0.112    -.0064573    .0573441
                  |
           _cons  |    .326081   .0154781    21.07   0.000     .2940784    .3580835
     ------------------------------------------------------------------------------

2753 .         * RESULT:  Positive and statistically significant at the .001 level.
2754 . //
2755 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2756 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2757 . *       are parallel between control and treatment groups in the pretreatment period).
2758 . *    Statistical significance indicates that trends are not parallel.
2759 . quietly: chp9matchptrends

2760 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = .31306655   p-value = .58078334

2761 .         * RESULT: No statistically significant evidence for violation of the parallel trends assumption.
2762 . //
2763 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2764 . *       Statistical significance indicates that effects are observed prior to treatment.
2765 . quietly: chp9matchgranger

2766 . quietly: mi query

2767 . quietly: local M = r(M)

2768 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 3.3084289   p-value = .053121

2769 .         * RESULT: Marginally significant evidence (at the .10 level) that the effects were observed prior to treatment.
2770 .         *       Treatment likely related to rule of law.
2771 . //
2772 . * III) Grangerplot of lags and leads of the treatment time variable.
2773 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
```

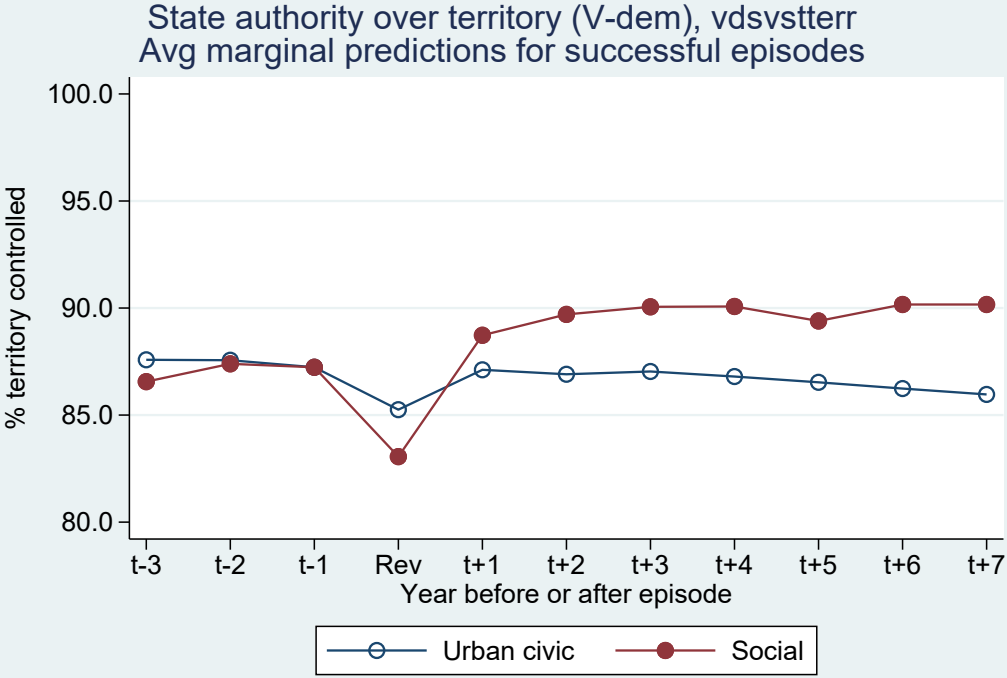
```
2774 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2775 . quietly: chp9matchgrangerplot

2776 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #82" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2777 . graph export Robustnesstestfiles\Logfiles\robch9graph82.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph82.pdf saved as PDF format

2778 .         * RESULT:  Lags are positive, statistically significant, and slightly declining over time.
2779 . //
2780 . * IV) Test for the influence of alternative treatments in surrounding periods
2781 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2782 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
2783 . quietly: chp9matchalttreat

2784 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  vdrule
     ------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------
     ATET
     treat              0.162***
                       (4.27)
     alttreat                        -0.00818         0.00115          0.0656*         0.0411
                                      (-1.34)          (0.16)          (2.16)          (1.60)
     ------------------------------------------------------------------------------------------
     Controls
     treat                             0.165***        0.161***        0.105**         0.131***
                                      (4.33)          (4.17)          (3.58)          (4.55)
     ------------------------------------------------------------------------------------------
     N                    946             946             946             946             946
     ------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2785 .         * RESULT:  Alternative treatment at t-1 is statistically significant but does not alter the statistical significance of treatm
     > ent.
2786 . //
2787 . * V) Lagged DV test
2788 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2789 . quietly: chp9matchdvlag

2790 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdrule
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat               0.162***        0.128***        0.167***        0.132***
                        (0.0379)        (0.0290)        (0.0365)        (0.0290)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                           0.346***                        0.403***
                                        (0.0441)                        (0.0413)
     laggeddv2                                            0.158***       -0.0760*
                                                         (0.0390)        (0.0277)
     ------------------------------------------------------------------------------
     N                    946             930             916             914
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2791 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical significance of treatment.
2792 .
2793 .
2794 . *=====================================================
2795 . * EFFECT OF REVOLUTION ON GOVERNMENT ACCOUNTABILITY
2796 . *=====================================================
2797 . * REGRESSION RESULTS PRESENTED IN CHAPTER 9 DO-FILE, AND VISUAL RESULTS
2798 . *       PRESENTED IN FIGURE 9.14
2799 . * Will test for treatment effects and check treatment effect estimation assumptions
2800 .
2801 . * SUCCESSFUL SOCIAL VS. MATCHED COUNTERPARTS
2802 . use matcheddiffindifflong.dta, clear

2803 . global yvar = "vdaccount"

2804 . global notetext "SUCCESSFUL SOCIAL VS. MATCHED CASES"

2805 . global condvar = "success==1 & leftist==1"

2806 . quietly{
```

```
2807 . quietly: chp9matchmultimp

2808 . //
2809 . // Testing for a statistically significant "treatment" effect
2810 . * Treatment consists of experiencing a successful social rev vs. no rev contention in matched counterparts
2811 . quietly: mi passive: generate treat=0

2812 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2813 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        374
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.0000
                                                     Largest FMI       =     0.0000
                                                     Complete DF       =          8
     DF adjustment:   Small sample                   DF:     min       =       6.55
                                                             avg       =       6.55
     Within VCE type:       Robust                           max       =       6.55

                                     (Within VCE adjusted for 9 clusters in revid)
     ------------------------------------------------------------------------------
        vdaccount | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
     -------------+----------------------------------------------------------------
     ATET         |
           treat  |
        (1 vs 0)  |  -.0178619   .0652798    -0.27   0.793    -.1744239    .1387002
     -------------+----------------------------------------------------------------
     Controls     |
             year |
                1 |  -.0013163     .00197    -0.67   0.527    -.0060411    .0034084
                2 |  -.0030263   .0025859    -1.17   0.283     -.009228    .0031754
                3 |   .0412914   .0286452     1.44   0.196    -.0274091    .1099919
                4 |   .0248631   .0231562     1.07   0.321     -.030673    .0803992
                5 |   .0128832   .0243757     0.53   0.615    -.0455777     .071344
                6 |   .0086564   .0254413     0.34   0.744    -.0523599    .0696728
                7 |  -.0026089   .0278738    -0.09   0.928    -.0694593    .0642414
                8 |  -.0062228   .0303989    -0.20   0.844    -.0791291    .0666835
                9 |  -.0138122   .0332001    -0.42   0.691    -.0934368    .0658125
               10 |  -.0145192   .0344771    -0.42   0.687    -.0972065     .068168
                  |
            _cons |   .3689422   .0330339    11.17   0.000     .2897161    .4481683
     ------------------------------------------------------------------------------

2814 .         * RESULT:  Negative but statistically insignificant.
2815 . //
2816 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2817 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2818 . *       are parallel between control and treatment groups in the pretreatment period).
2819 . *    Statistical significance indicates that trends are not parallel.
2820 . quietly: chp9matchptrends

2821 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 4.2406031   p-value = .07344295

2822 .         * RESULT: Marginally statistically significant evidence (at the .10 level) of the parallel trends assumption
2823 . //
2824 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2825 . *       Statistical significance indicates that effects are observed prior to treatment.
2826 . quietly: chp9matchgranger

2827 . quietly: mi query

2828 . quietly: local M = r(M)

2829 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
     Averaged over 10 imputations: F-score = 2.3059144   p-value = .16190031

2830 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2831 . //
2832 . * III) Grangerplot of lags and leads of the treatment time variable.
2833 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2834 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2835 . quietly: chp9matchgrangerplot

2836 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
     > large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #83" , span) title("`titvar1'" "Effects over time (le
     > ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))
```

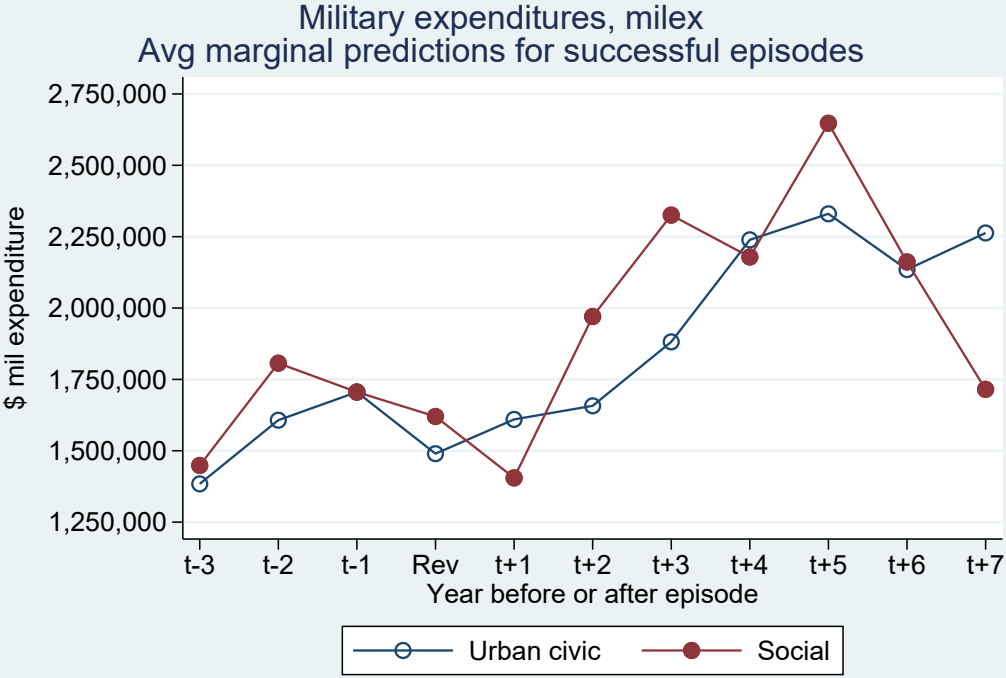
```
2837 . graph export Robustnesstestfiles\Logfiles\robch9graph83.pdf, replace
     file Robustnesstestfiles\Logfiles\robch9graph83.pdf saved as PDF format

2838 .         * RESULT:  Lags are statistically insignificant and hover around zero, though largely negative.
2839 . //
2840 . * IV) Test for the influence of alternative treatments in surrounding periods
2841 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2842 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
     > y significant.
2843 . quietly: chp9matchalttreat

2844 . esttab , drop (*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
     > ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

     Possible alternative treatment effects for  vdaccount
     ------------------------------------------------------------------------------------------------
                           Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
     ------------------------------------------------------------------------------------------------
     ATET
     treat              -0.0179
                        (-0.27)
     alttreat                          -0.00553        -0.00605+        -0.0321         -0.0205
                                        (-1.49)         (-2.01)         (-0.63)         (-0.58)
     ------------------------------------------------------------------------------------------------
     Controls
     treat                              -0.0160         -0.0138          0.0103        -0.00247
                                        (-0.25)         (-0.21)          (0.30)         (-0.05)
     ------------------------------------------------------------------------------------------------
     N                     374             374             374             374             374
     ------------------------------------------------------------------------------------------------
     t statistics in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2845 .         * RESULT:  No alternative treatments that affect the statistical insignificance of treatment.
2846 . //
2847 . * V) Lagged DV test
2848 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2849 . quietly: chp9matchdvlag

2850 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdaccount
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat              -0.0179          0.0207         0.00938         0.00525
                       (0.0653)        (0.0382)        (0.0549)        (0.0380)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                          0.492***                        0.628***
                                       (0.0763)                        (0.0647)
     laggeddv2                                             0.197         -0.189**
                                                          (0.104)        (0.0434)
     ------------------------------------------------------------------------------
     N                     374             374             374             374
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2851 .         * RESULT: Evidence for AR1 (and possibly AR2) processes that do not affect the statistical insignificance of treatment.
2852 .
2853 .
2854 . // SUCCESSFUL URBAN CIVIC VS. MATCHED COUNTERPARTS
2855 . global notetext "SUCCESSFUL URBAN CIVIC VS. MATCHED CASES"

2856 . global condvar = "success==1 & urbancivic==1"

2857 . //
2858 . // Testing for a statistically significant "treatment" effect
2859 . * Treatment consists of experiencing a successful urban civic rev vs. no rev contention in matched counterparts
2860 . quietly: mi passive: replace treat=0

2861 . quietly: mi passive: replace treat=1 if $condvar & year>2 & revny==1

2862 . mi estimate, cmdok post dots saving(miest, replace): xtdidregress ($yvar) (treat) if $condvar [pweight=freqwt], group(diffid) time(yea
     > r) vce(cluster revid)

     Imputations (10):
       .........10 done

     Multiple-imputation estimates                   Imputations       =         10
                                                     Number of obs     =        913
     Group variable:
                                                     Number of groups  =          .
                                                     Obs per group:
                                                                  min =          .
                                                                  avg =          .
                                                                  max =          .
                                                     Average RVI       =     0.1505
                                                     Largest FMI       =     0.0455
                                                     Complete DF       =         24
     DF adjustment:   Small sample                   DF:     min       =      21.33
                                                             avg       =      21.84
     Within VCE type:       Robust                           max       =      22.22
```

```
                                (Within VCE adjusted for 25 clusters in revid)
------------------------------------------------------------------------------
   vdaccount | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ATET         |
       treat |
   (1 vs 0)  |   .1728887   .0301623     5.73   0.000     .1102564    .2355211
-------------+----------------------------------------------------------------
Controls     |
        year |
          1  |   .0052052    .002171     2.40   0.025     .0007055    .0097049
          2  |   .0026617   .0042692     0.62   0.539     -.006187    .0115103
          3  |  -.0104508   .0172177    -0.61   0.550    -.0461869    .0252853
          4  |   .0473255   .0227588     2.08   0.049     .0001177    .0945333
          5  |   .0543914   .0255069     2.13   0.044      .001496    .1072869
          6  |   .0550424   .0271445     2.03   0.055    -.0012503    .1113351
          7  |   .0494608   .0279408     1.77   0.091    -.0085049    .1074265
          8  |   .0466406    .028752     1.62   0.119    -.0130405    .1063218
          9  |   .0471225   .0294843     1.60   0.125    -.0141357    .1083806
         10  |   .0595588   .0312357     1.91   0.070    -.0053358    .1244534
             |
       _cons |    .420095   .0221418    18.97   0.000     .3742024    .4659876
------------------------------------------------------------------------------

2863 .         * RESULT:  Positive and statistically significant at the .001 level.
2864 . //
2865 . // TESTS FOR THE INTEGRITY OF THE TREATMENT EFFECT ESTIMATION
2866 . * I) Test for pre-treatment parallel trends (whether linear trends in the outcome variable
2867 . *       are parallel between control and treatment groups in the pretreatment period).
2868 . *    Statistical significance indicates that trends are not parallel.
2869 . quietly: chp9matchptrends

2870 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = 1.1002472   p-value = .30466047

2871 .         * RESULT: No statistically significant evidence for violation of the parallel trends assumption.
2872 . //
2873 . * II) Granger test for whether treatment effects are observed in anticipation of actual treatment
2874 . *       Statistical significance indicates that effects are observed prior to treatment.
2875 . quietly: chp9matchgranger

2876 . quietly: mi query

2877 . quietly: local M = r(M)

2878 . di as txt "Averaged over " as res `M' as txt " imputations: F-score = " as res finalfscore as txt "   p-value = " as res finalpvalue
Averaged over 10 imputations: F-score = .85379012   p-value = .4383293

2879 .         * RESULT: No statistically significant evidence that the effects were observed prior to treatment.
2880 . //
2881 . * III) Grangerplot of lags and leads of the treatment time variable.
2882 . *       Used to assess whether there are any changes in the treatment effect over the post-treatment time period.
2883 . *       Visual evidence. Uses all available leads and lags, with effects normalized to first lead.quietly: chp9matchgrangerplot
2884 . quietly: chp9matchgrangerplot

2885 . coefplot matrix(B[1]), ci((B[2] B[3])) vertical yline(0, lcolor(black) lwidth(thin) lpattern(dash)) caption({bf: $notetext }, size(med
> large) justification(center) alignment(bottom)) ciopts(recast(rcap)) note("Graph #84" , span) title("`titvar1'" "Effects over time (le
> ads & lags w 95% CIs)", size(large)) ylabel(, angle(horizontal))

2886 . graph export Robustnesstestfiles\Logfiles\robch9graph84.pdf, replace
file Robustnesstestfiles\Logfiles\robch9graph84.pdf saved as PDF format

2887 .         * RESULT:  Lags are positive, statistically significant, and slightly declining over time.
2888 . //
2889 . * IV) Test for the influence of alternative treatments in surrounding periods
2890 . *       Examines whether there may be other "treatments" before or after revolution that affect the relationship
2891 . *       Uses these alternative periods as the treatment effect and then tests whether the actual treatment period remains statisticall
> y significant.
2892 . quietly: chp9matchalttreat

2893 . esttab , drop (*.year  cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("Rev" "Alt, t-2" "Alt, t-1" "Alt, t+1" "Alt, t+2"
> ) nonumbers title("Possible alternative treatment effects for " $yvar) coeflabels(r1vs0.treat "treat" r1vs0.alttreat "alttreat")

Possible alternative treatment effects for  vdaccount
------------------------------------------------------------------------------------------------
                      Rev        Alt, t-2        Alt, t-1        Alt, t+1        Alt, t+2
------------------------------------------------------------------------------------------------
ATET
treat               0.173***
                   (5.73)
alttreat                          -0.00906         -0.0111          0.0923**        0.0431*
                                   (-0.94)         (-1.14)          (3.60)          (2.17)
------------------------------------------------------------------------------------------------
Controls
treat                               0.176***        0.180***        0.0921**         0.141***
                                   (5.79)          (5.88)          (3.62)          (5.56)
------------------------------------------------------------------------------------------------
N                     913             913             913             913             913
------------------------------------------------------------------------------------------------
t statistics in parentheses
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001
```

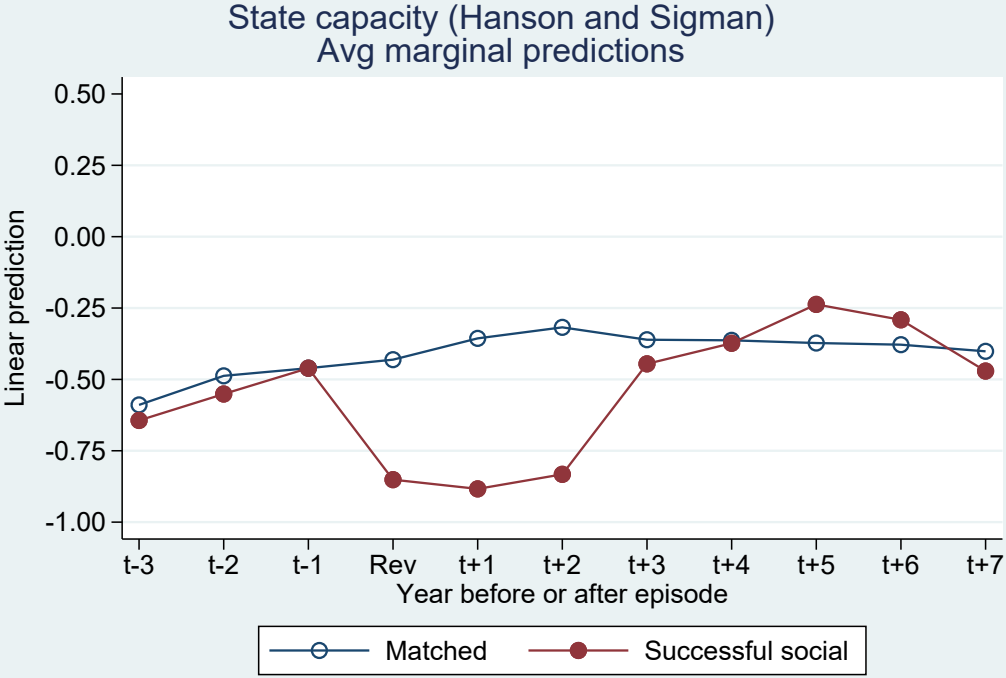
```
2894 .         * RESULT:  Alternative treatments at t-1 and t-2 are statistically significant but do not alter the statistical significance o
     > f treatment.
2895 .         *       Points to critical post-revolutionary processes in establishing government accountability.
2896 . //
2897 . * V) Lagged DV test
2898 . *       Controls for possible effect of lagged values of the dependent variable on treatment the effect (up to 2 lags)
2899 . quietly: chp9matchdvlag

2900 . esttab , se drop(*.year _cons)  star (+ 0.10 * 0.05 ** 0.01 *** 0.001) nogaps  mtitles("No lag" "AR 1" "AR 2" "AR 1,2") nonumbers titl
     > e("Testing for the possible effect of lagged values of the dependent variable for" $yvar) coeflabels(r1vs0.treat "treat")

     Testing for the possible effect of lagged values of the dependent variable for vdaccount
     ------------------------------------------------------------------------------
                        No lag            AR 1            AR 2          AR 1,2
     ------------------------------------------------------------------------------
     ATET
     treat                0.173***       0.0957***        0.149***        0.106***
                         (0.0302)        (0.0241)        (0.0281)        (0.0230)
     ------------------------------------------------------------------------------
     Controls
     laggeddv1                            0.520***                        0.620***
                                         (0.0675)                        (0.0688)
     laggeddv2                                            0.257**        -0.144***
                                                         (0.0727)        (0.0346)
     ------------------------------------------------------------------------------
     N                      913             898             883             883
     ------------------------------------------------------------------------------
     Standard errors in parentheses
     + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

2901 .         * RESULT: Evidence for AR1 and AR2 processes that do not affect the statistical significance of treatment.
2902 .
2903 .
2904 . log close
           name:  <unnamed>
            log:  C:\Users\mbeissin\Desktop\Stata files for book\Robustnesstestfiles\Logfiles\robustnesstestschapter9.log
       log type:  text
      closed on:  26 Jan 2022, 15:57:42
     ------------------------------------------------------------------------------------------------------------------------------------------------
```


State authority over territory (V-dem), vdsvstterr
Avg marginal predictions for successful episodes
% territory controlled
100.0
95.0
90.0
85.0
80.0
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Urban civic
Social

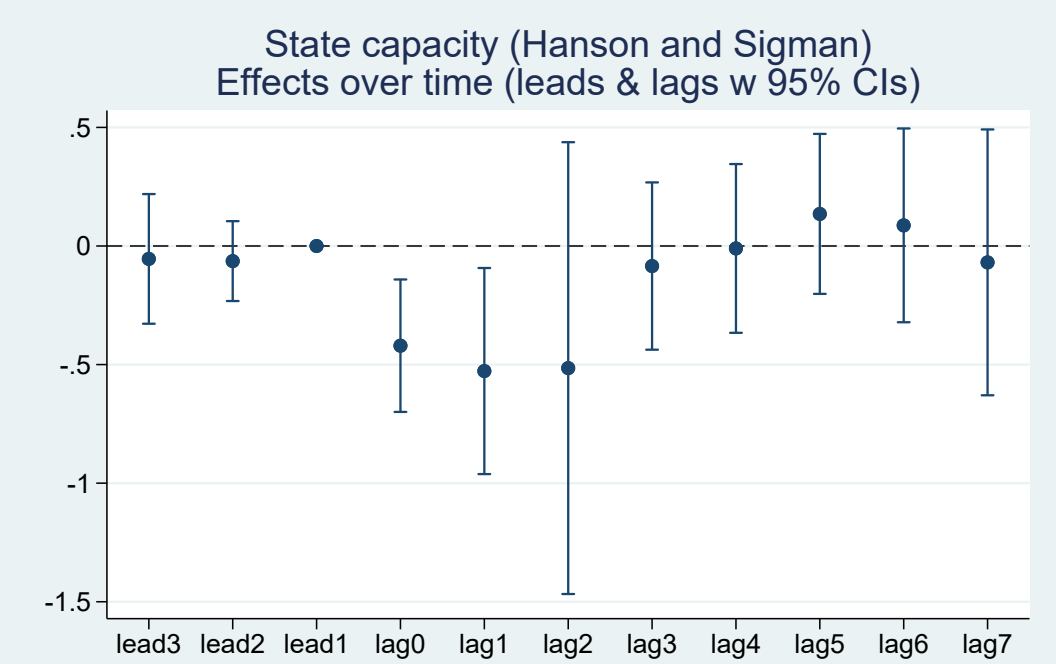
Graph #1


Military expenditures, milex
Avg marginal predictions for successful episodes
$ mil expenditure
2,750,000
2,500,000
2,250,000
2,000,000
1,750,000
1,500,000
1,250,000
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Urban civic
Social

Graph #2

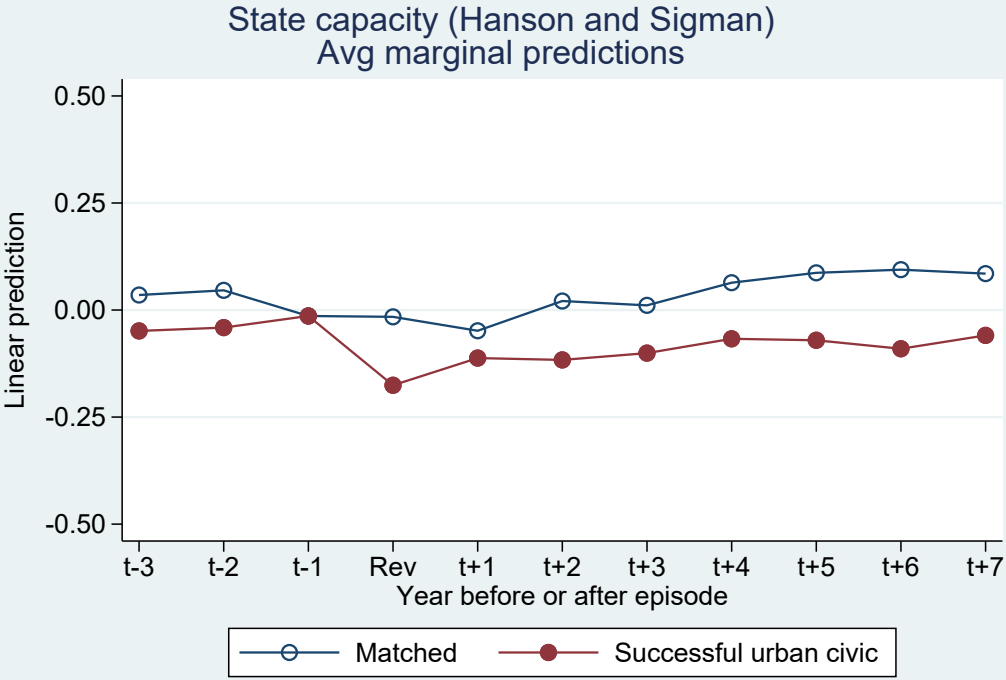

State capacity (Hanson and Sigman)
Avg marginal predictions
Linear prediction
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

Graph #3

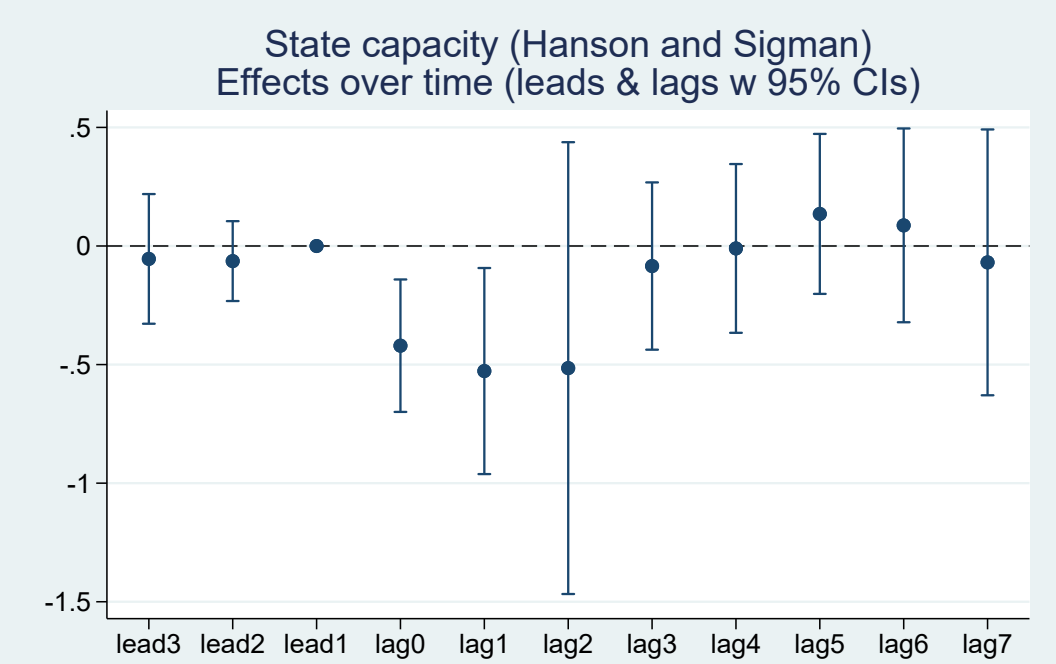


Graph #4

SUCCESSFUL SOCIAL VS. MATCHED CASES

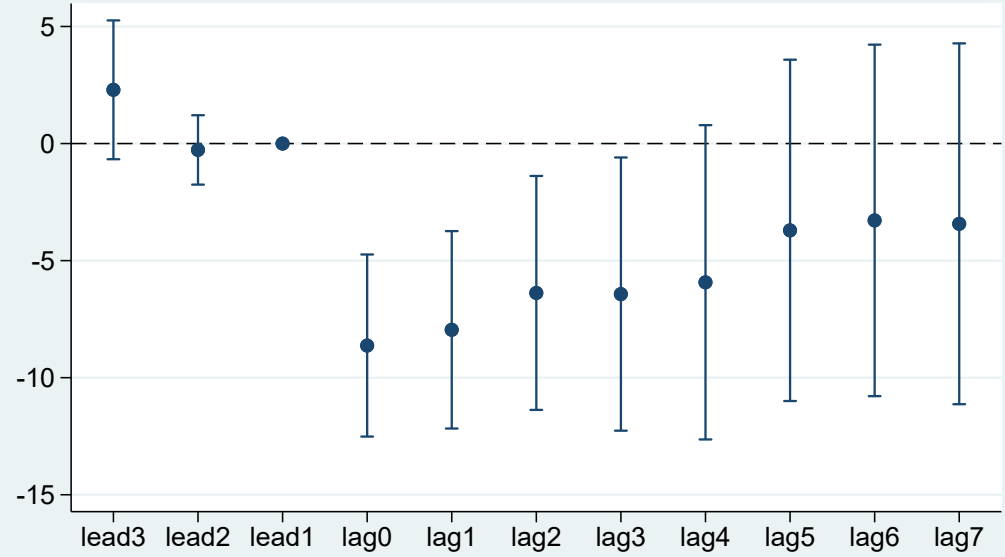

State capacity (Hanson and Sigman)
Avg marginal predictions
0.50
0.25
0.00
-0.25
-0.50
Linear prediction
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful urban civic

Graph #5



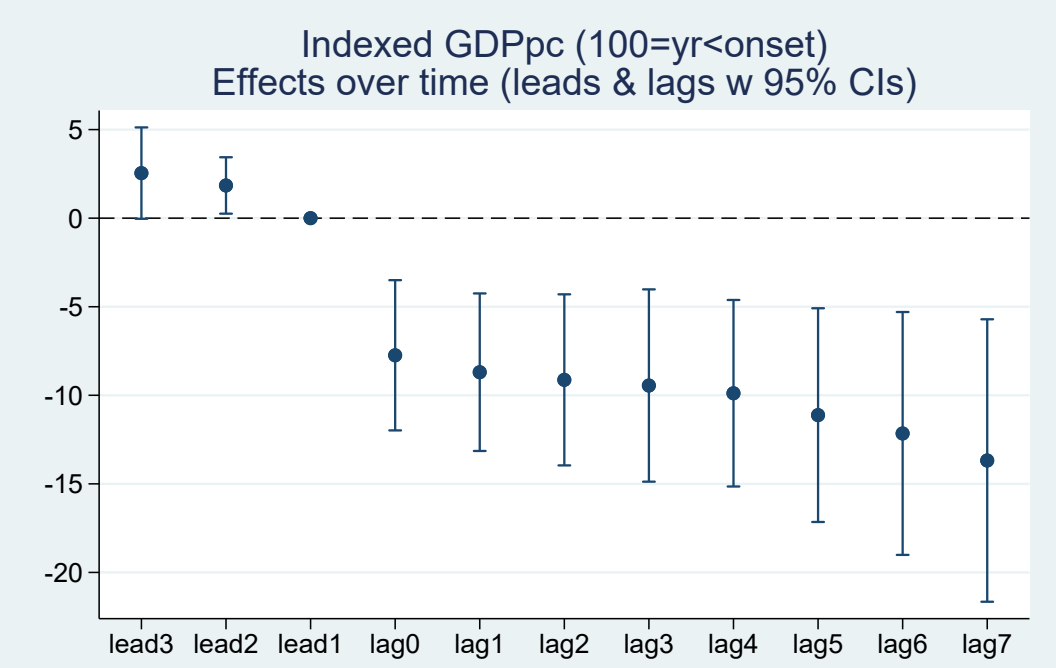
Graph #6

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES



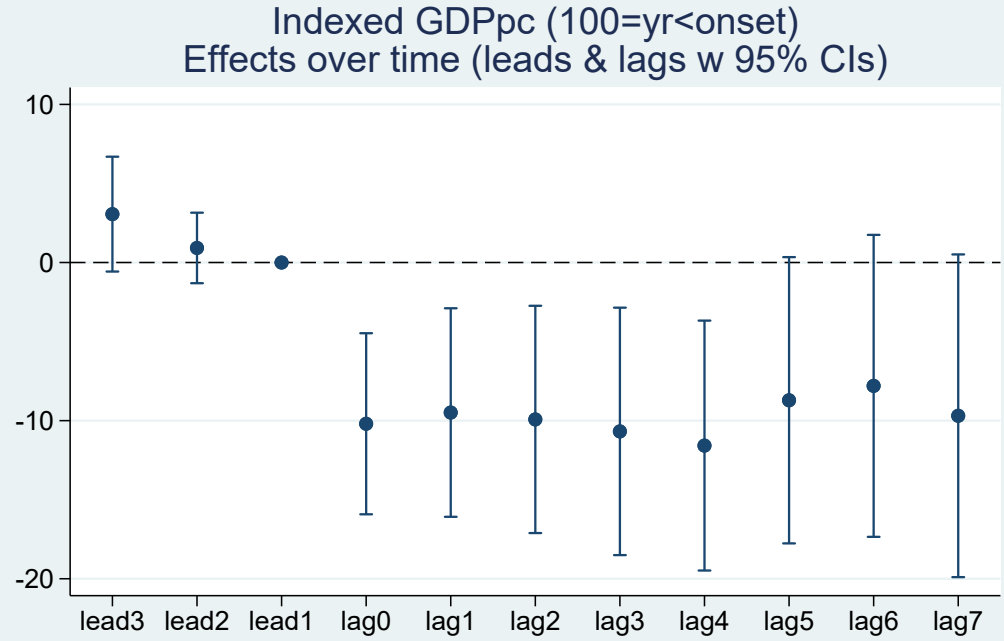
Graph #7

FAILED VS. MATCHED CASES



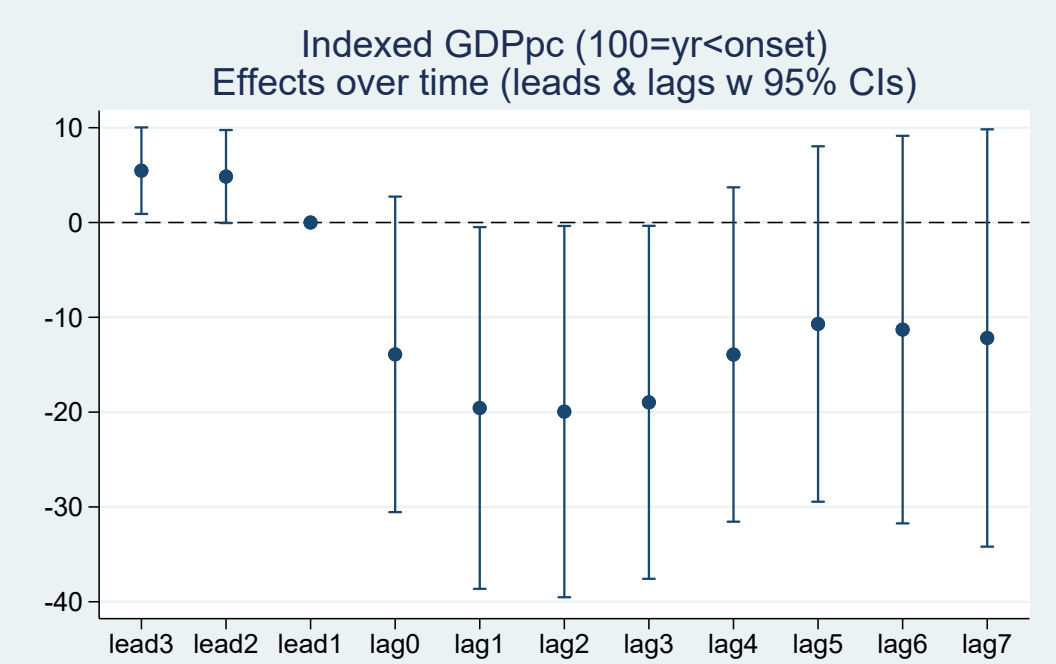
Graph #8

SUCCESSFUL VS. MATCHED CASES



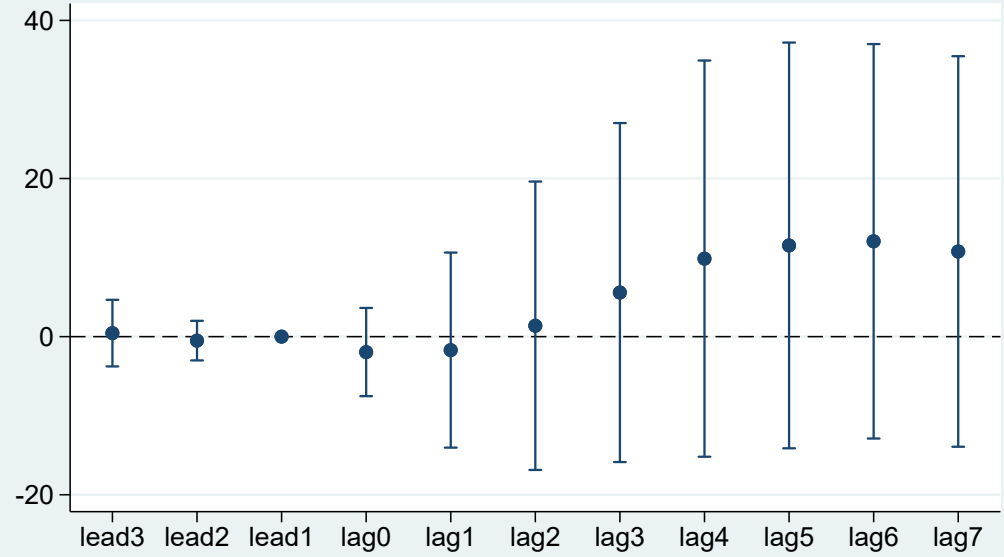
Graph #9

FAILED SOCIAL VS. MATCHED CASES



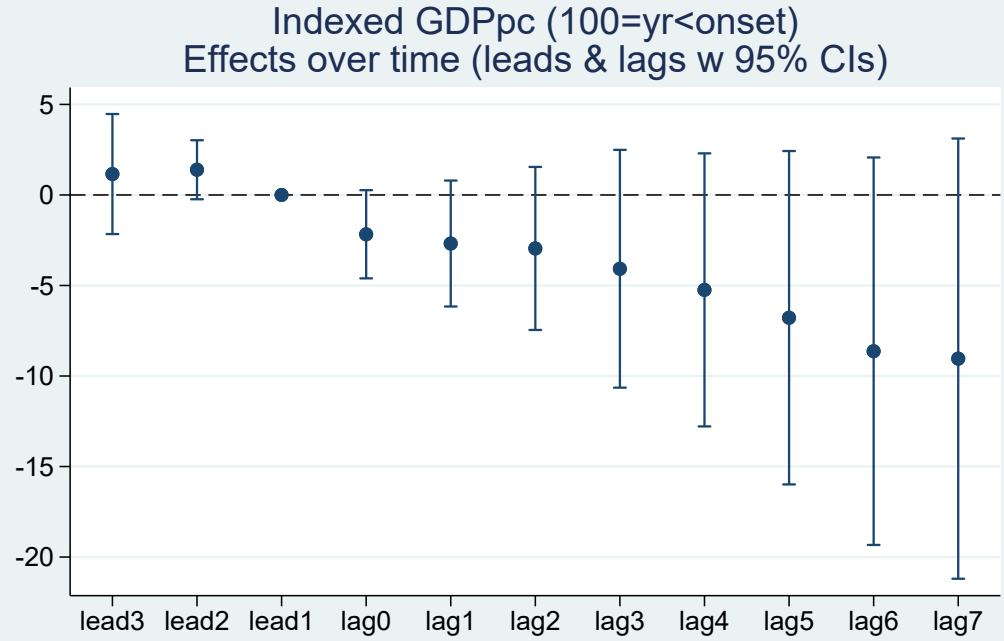
Graph #10

SUCCESSFUL SOCIAL VS. MATCHED CASES



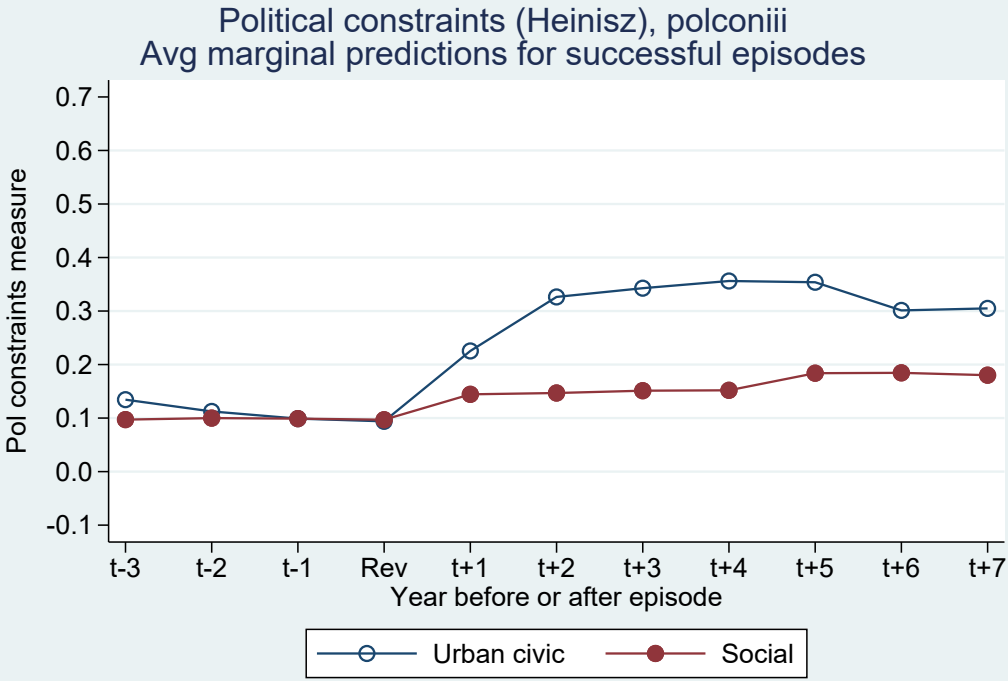
Graph #11

FAILED URBAN CIVIC VS. MATCHED CASES

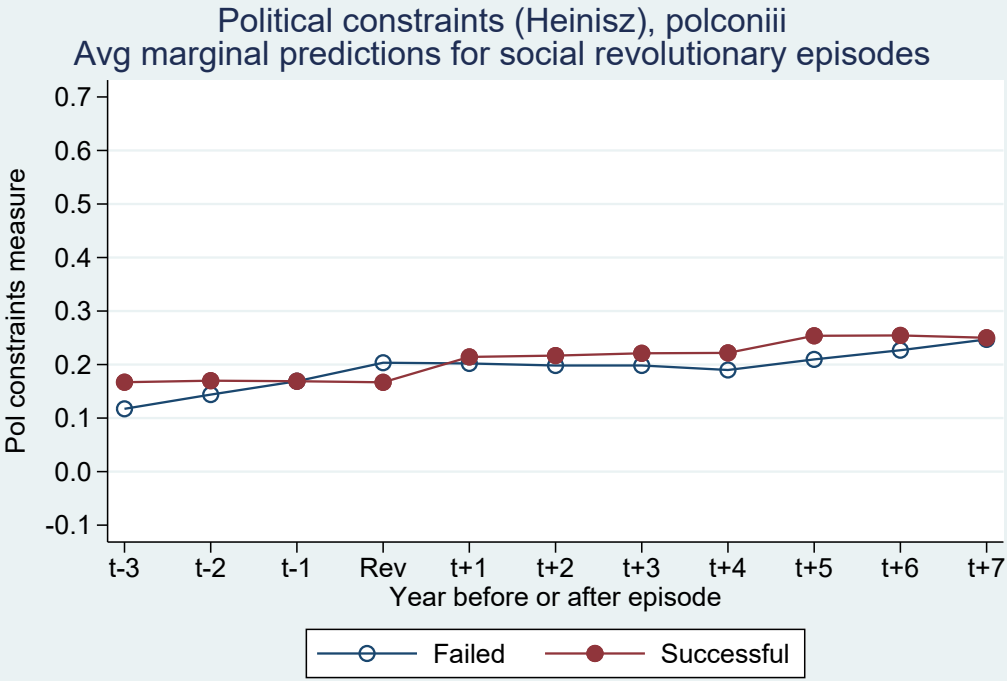


Graph #12

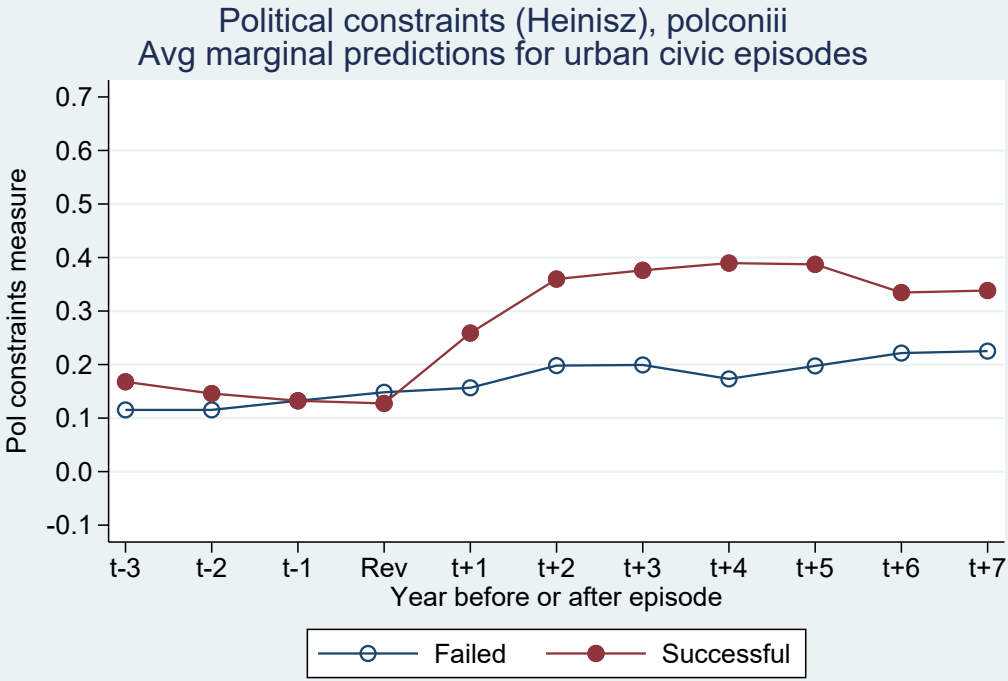
SUCCESSFUL URBAN CIVIC VS. MATCHED CASES


Political constraints (Heinisz), polconiii
Avg marginal predictions for successful episodes
Pol constraints measure
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Urban civic
Social

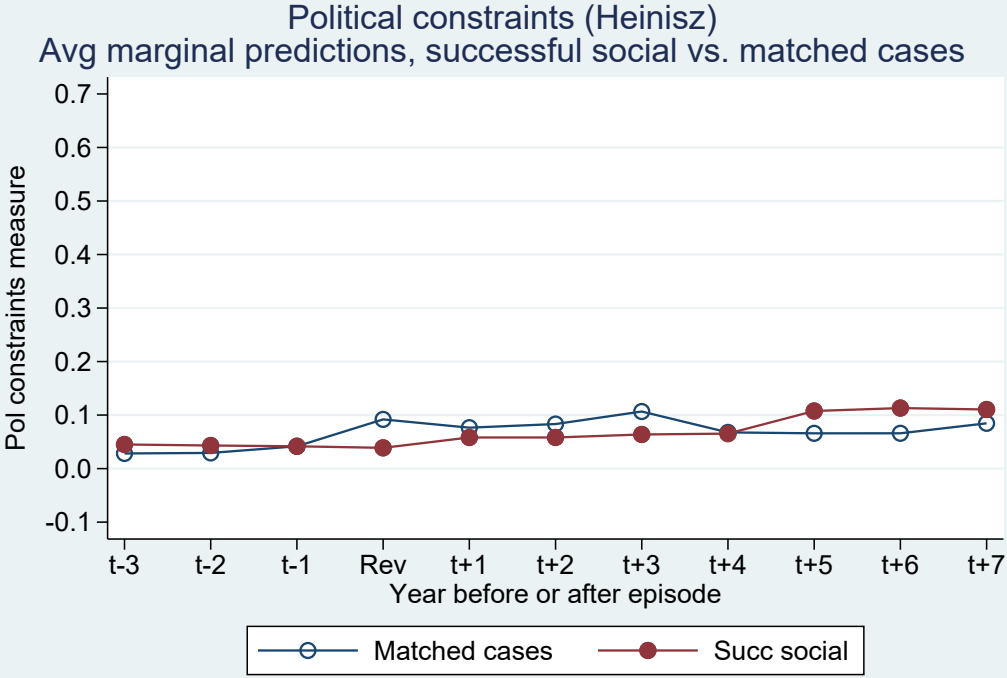
Graph #13


Political constraints (Heinisz), polconiii
Avg marginal predictions for social revolutionary episodes
Pol constraints measure
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Failed
Successful

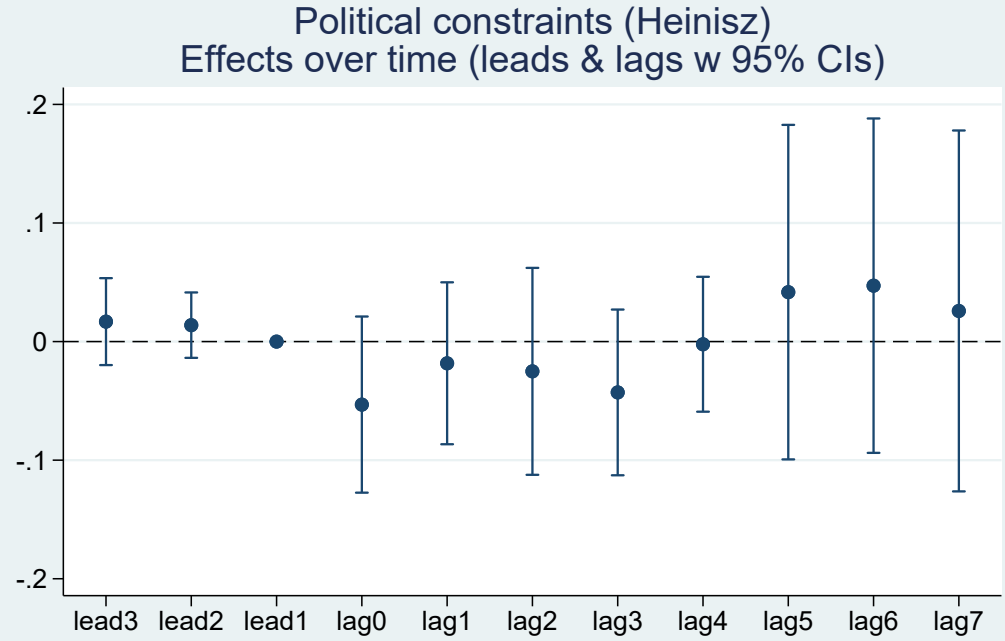
Graph #14


Political constraints (Heinisz), polconiii
Avg marginal predictions for urban civic episodes
Pol constraints measure
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Failed
Successful

Graph #15

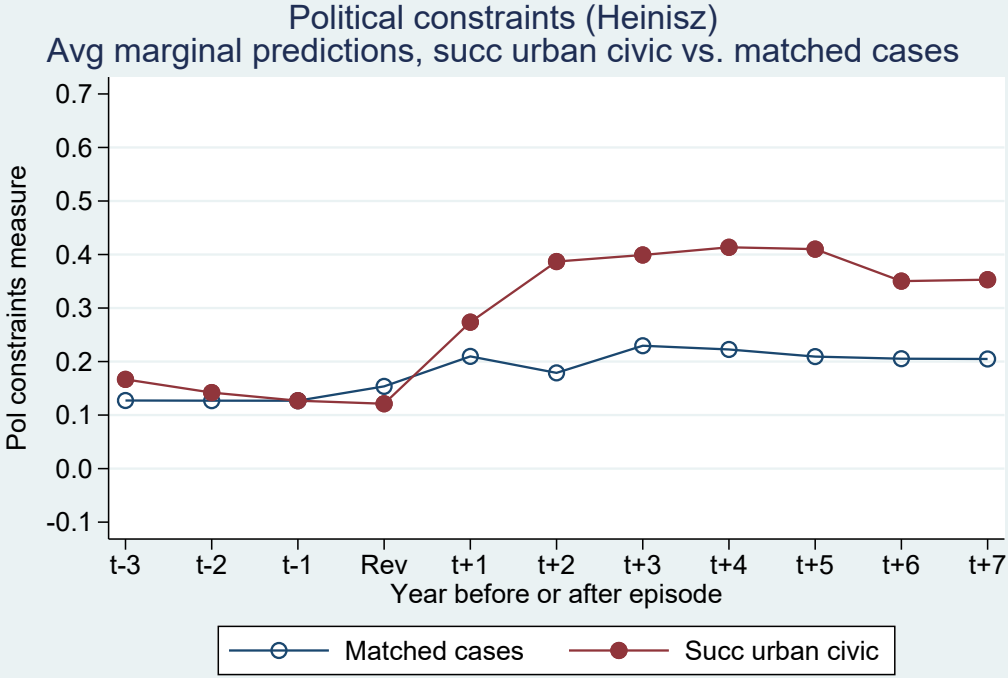

Political constraints (Heinisz)
Avg marginal predictions, successful social vs. matched cases
Pol constraints measure
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched cases
Succ social

Graph #16

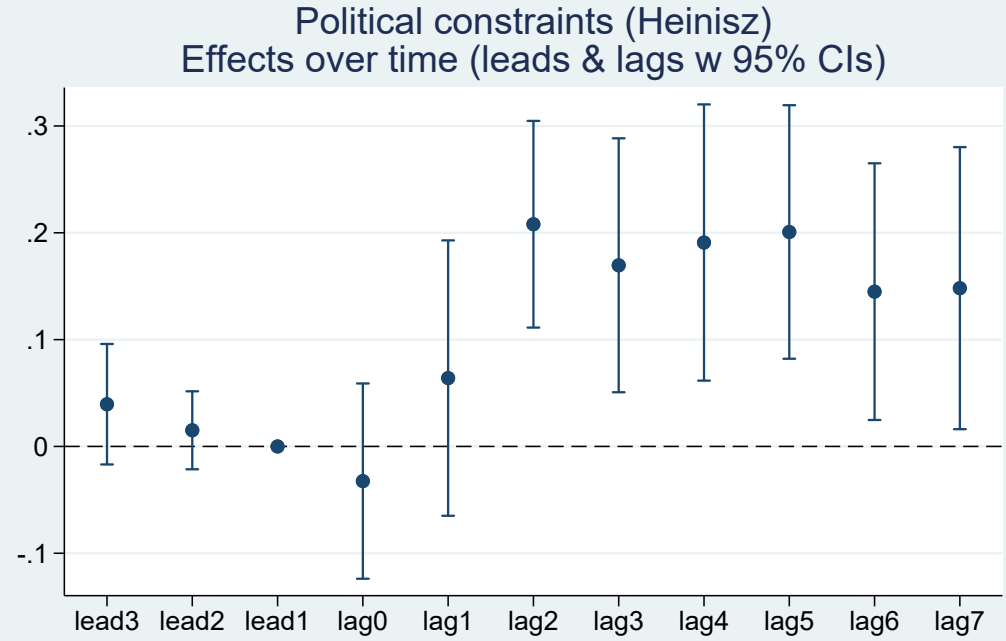


Graph #17

SUCCESSFUL SOCIAL VS. MATCHED CASES

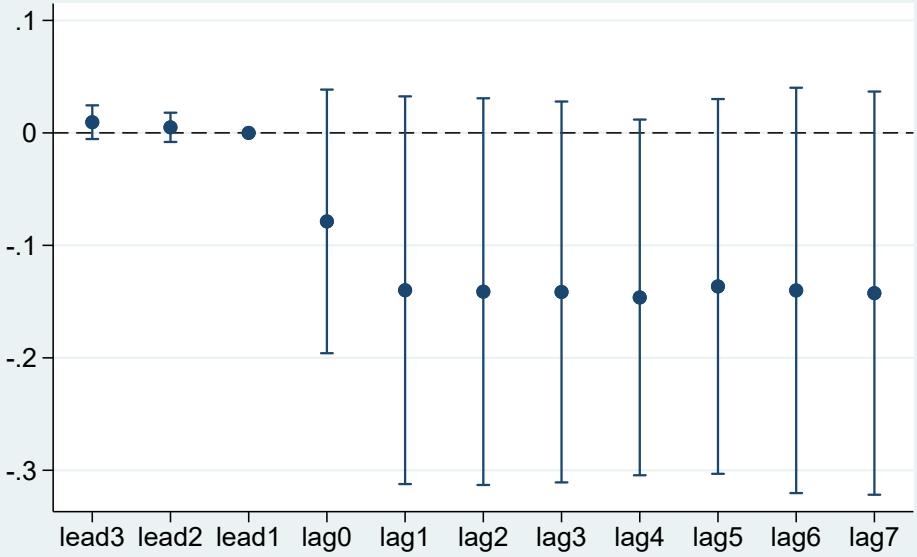

Political constraints (Heinisz)
Avg marginal predictions, succ urban civic vs. matched cases
Pol constraints measure
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched cases
Succ urban civic

Graph #18



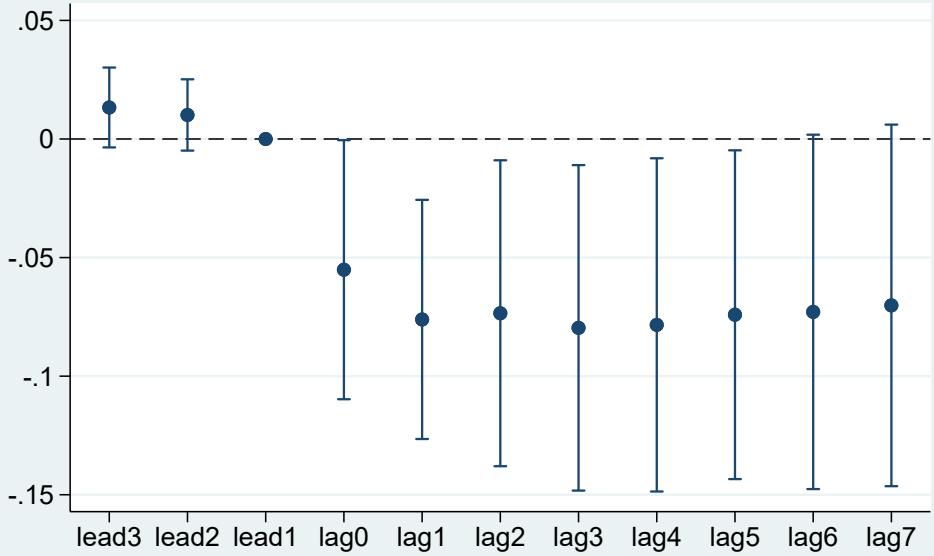
Graph #19

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES



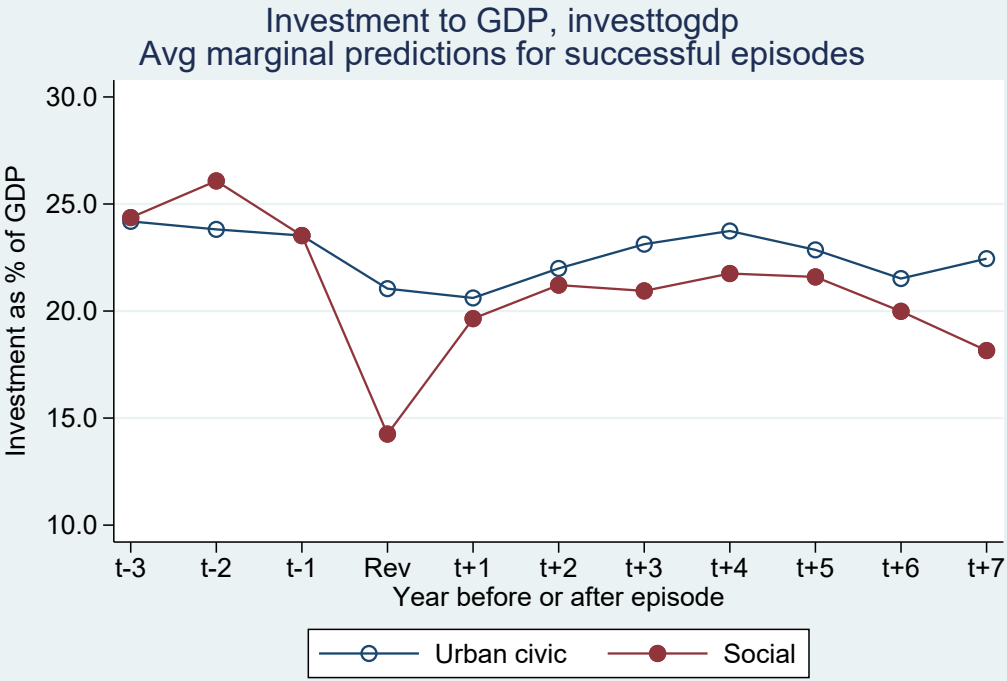
Graph #20

SUCCESSFUL SOCIAL VS. MATCHED CASES

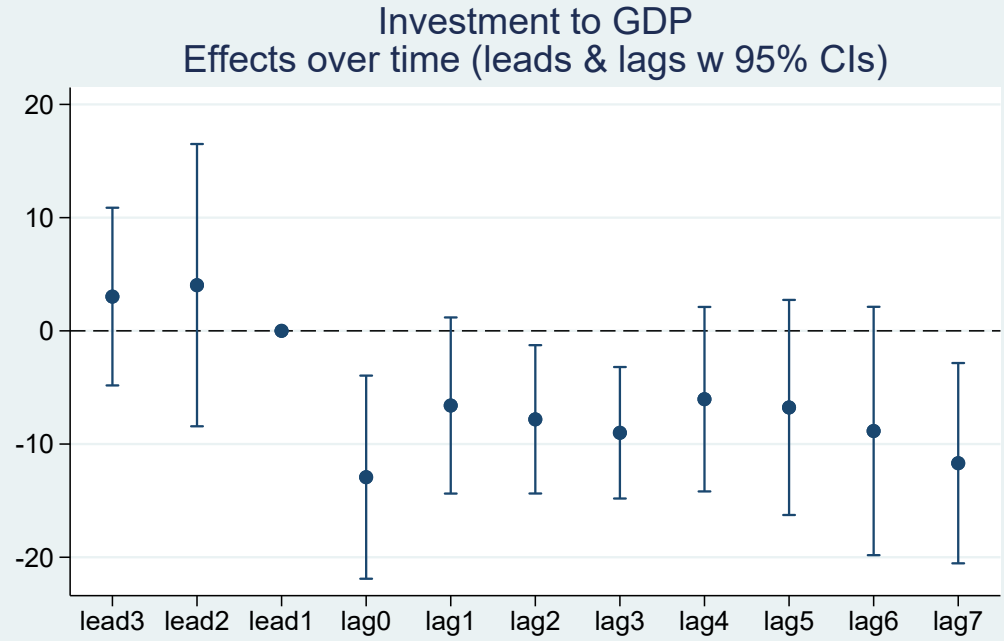


Graph #21

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES

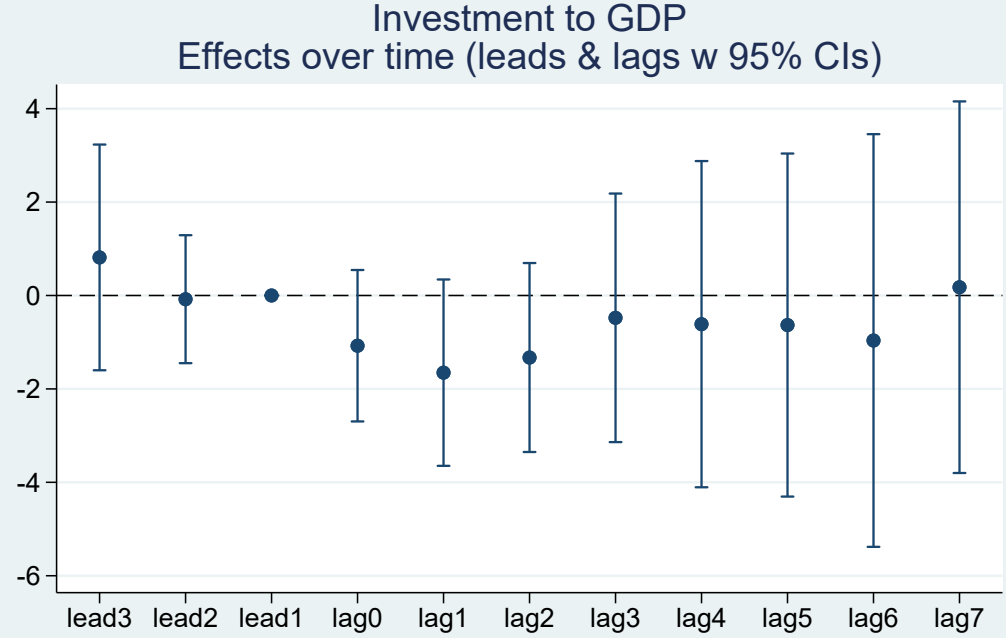

Investment to GDP, investtogdp
Avg marginal predictions for successful episodes
Investment as % of GDP
30.0
25.0
20.0
15.0
10.0
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Urban civic
Social

Graph #22



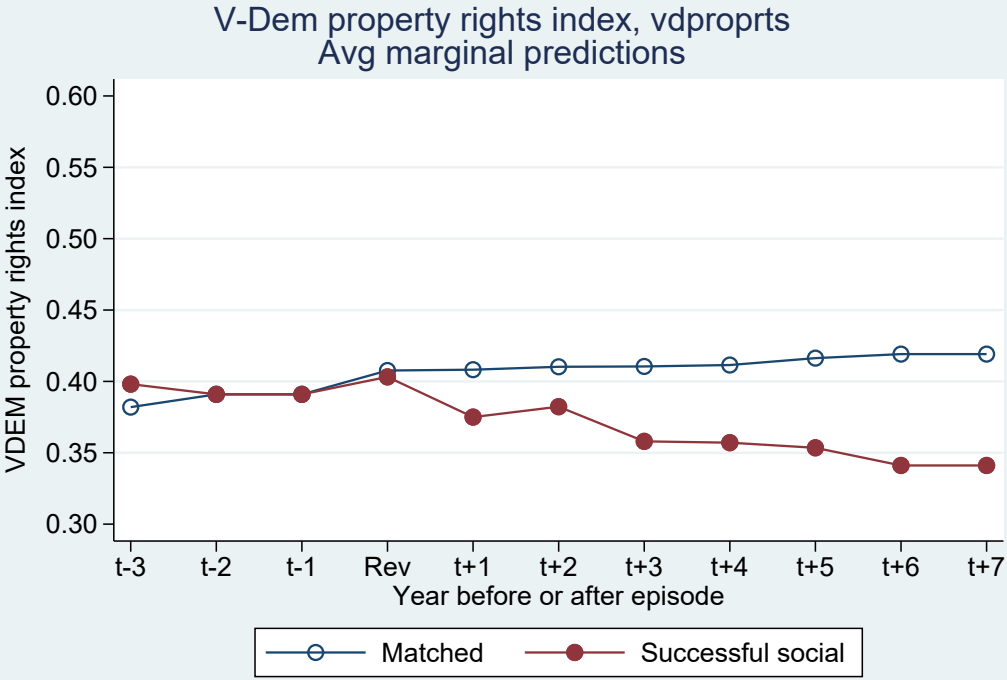
Graph #23

SUCCESSFUL SOCIAL VS. MATCHED CASES

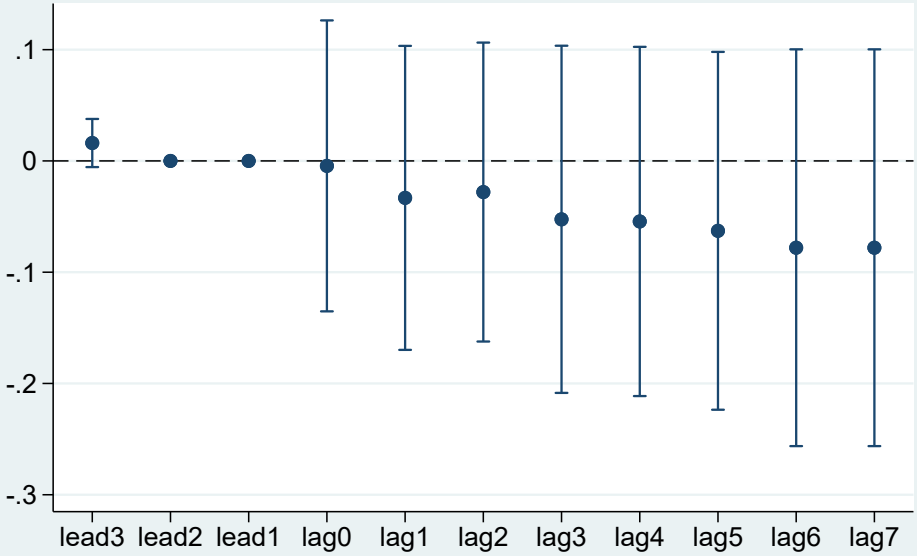


Graph #24

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES

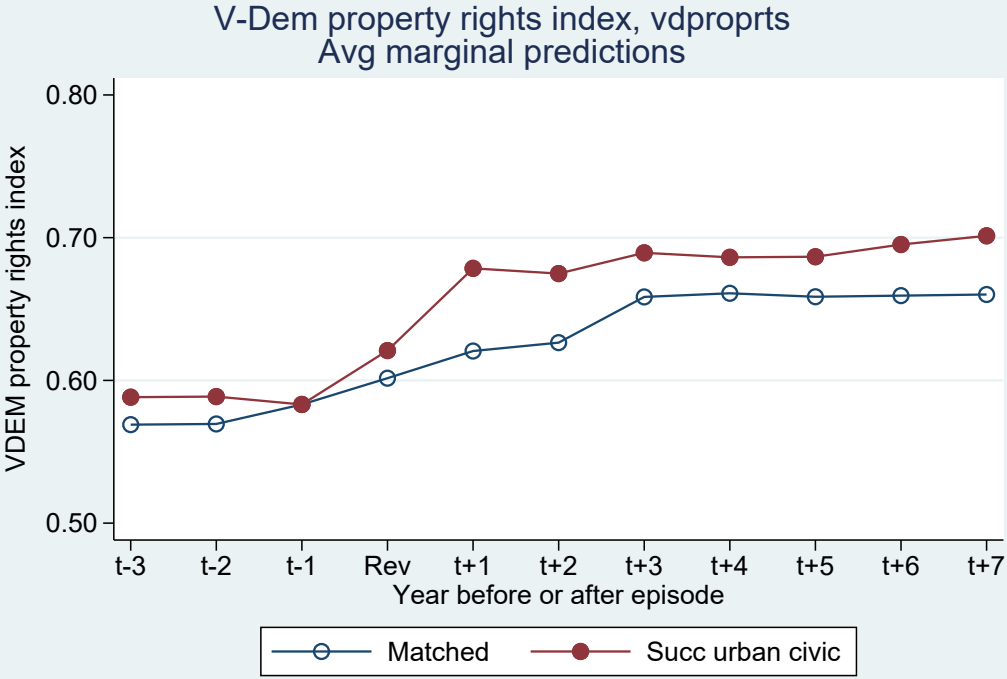

V-Dem property rights index, vdproprts
Avg marginal predictions
VDEM property rights index
0.60
0.55
0.50
0.45
0.40
0.35
0.30
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

Graph #25

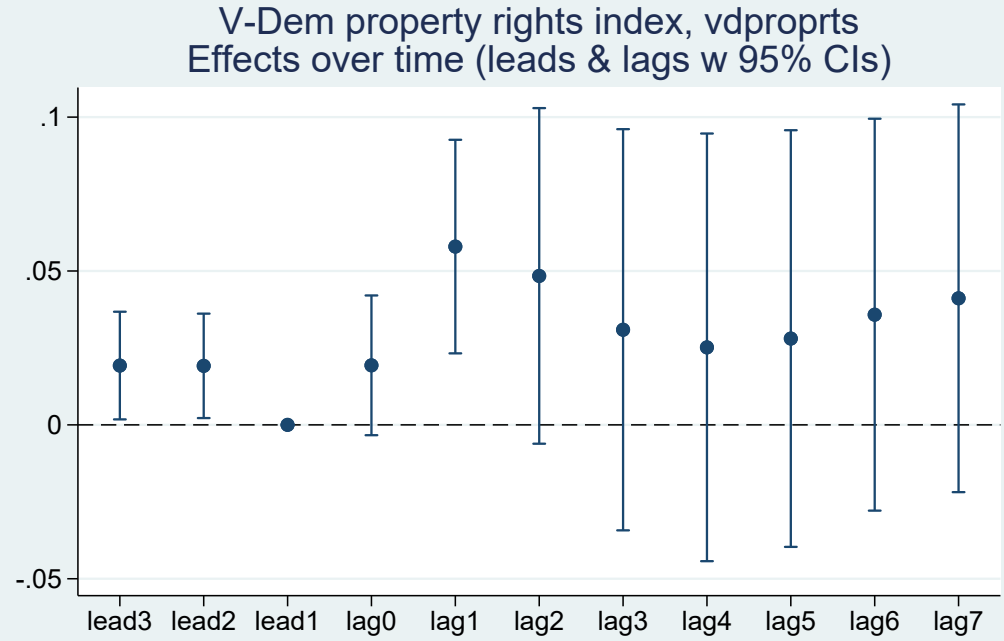


Graph #26

SUCCESSFUL SOCIAL VS. MATCHED CASES

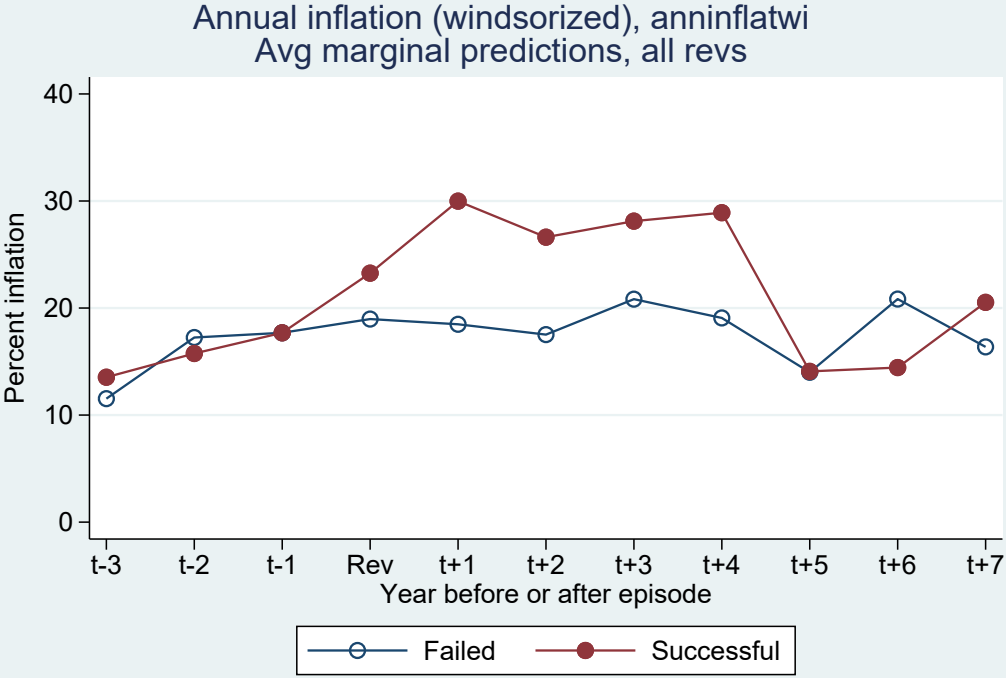

V-Dem property rights index, vdproprts
Avg marginal predictions
VDEM property rights index
0.80
0.70
0.60
0.50
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #27

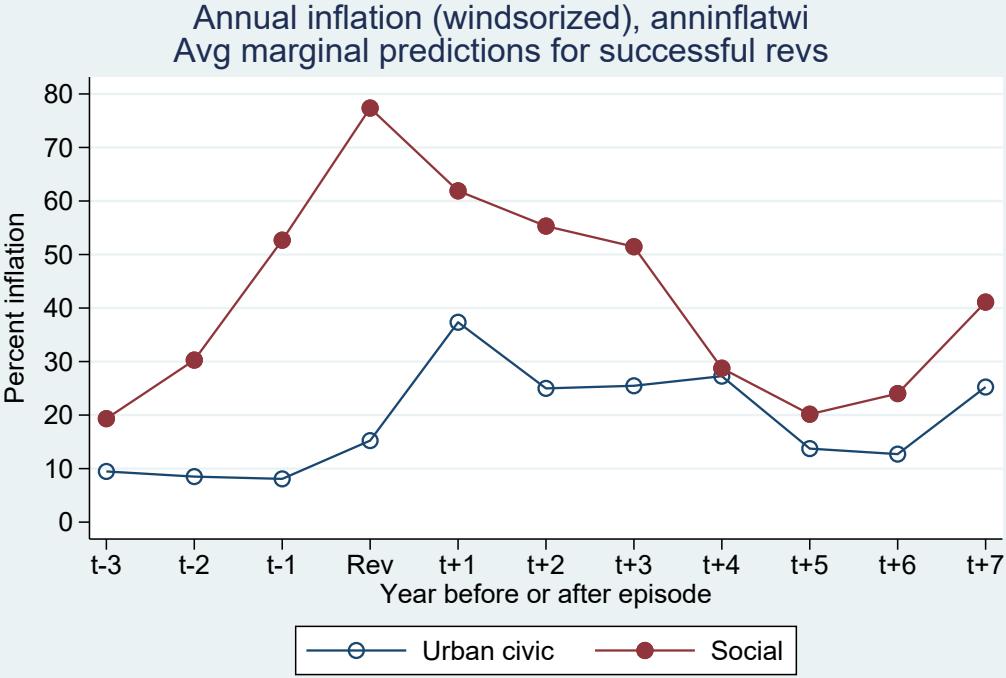


Graph #28

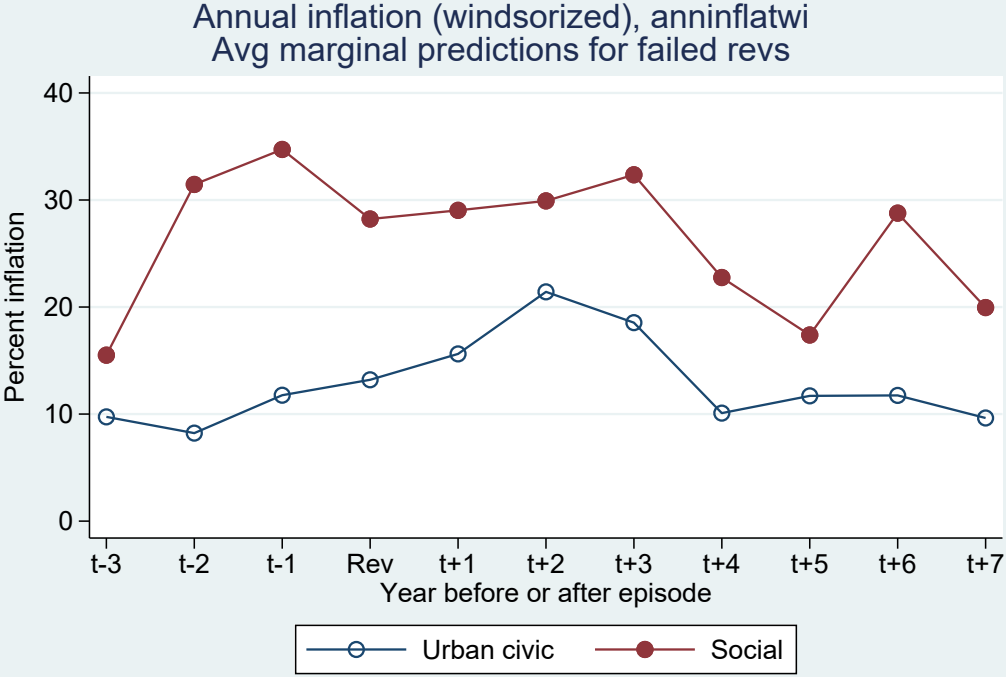
SUCCESSFUL URBAN CIVIC VS. MATCHED CASES


Annual inflation (windsorized), anninflatwi
Avg marginal predictions, all revs
Percent inflation
40
30
20
10
0
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Failed
Successful

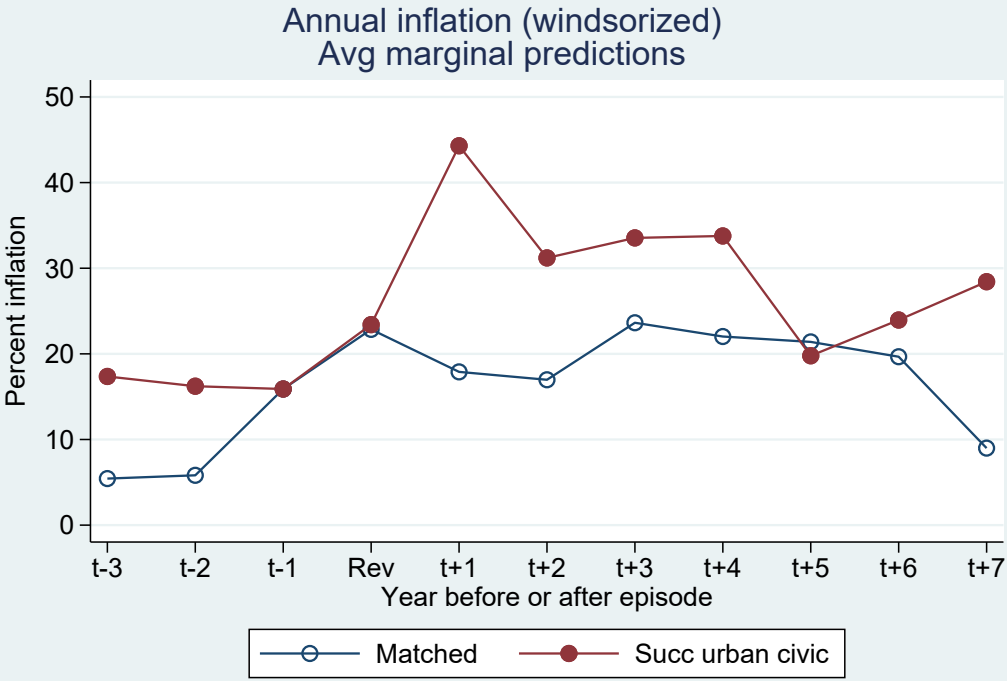
Graph #29


Annual inflation (windsorized), anninflatwi
Avg marginal predictions for successful revs
Percent inflation
80
70
60
50
40
30
20
10
0
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Urban civic
Social

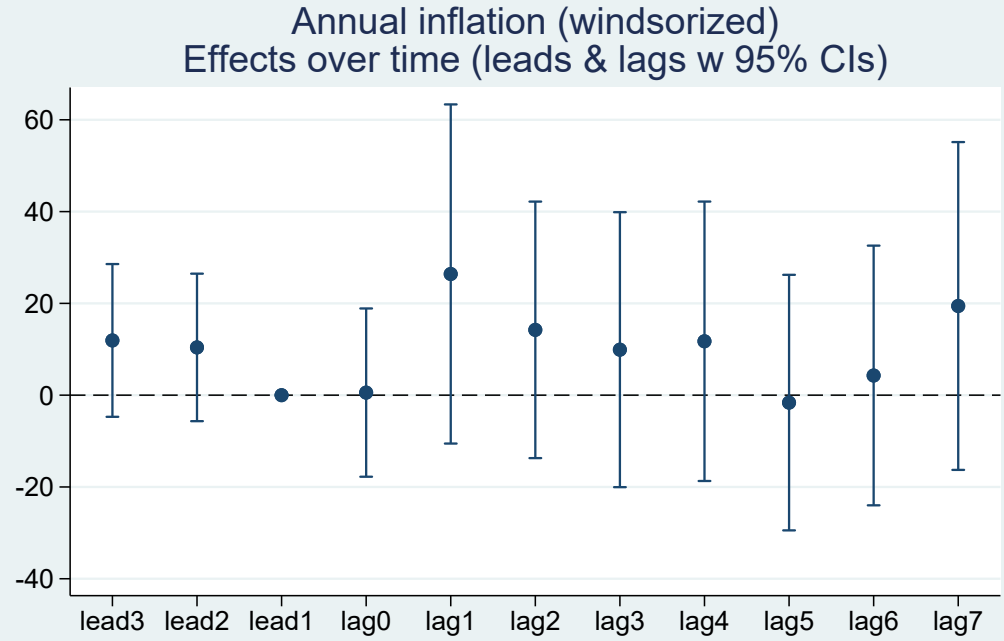
Graph #30


Annual inflation (windsorized), anninflatwi
Avg marginal predictions for failed revs
Percent inflation
40
30
20
10
0
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Urban civic
Social

Graph #31

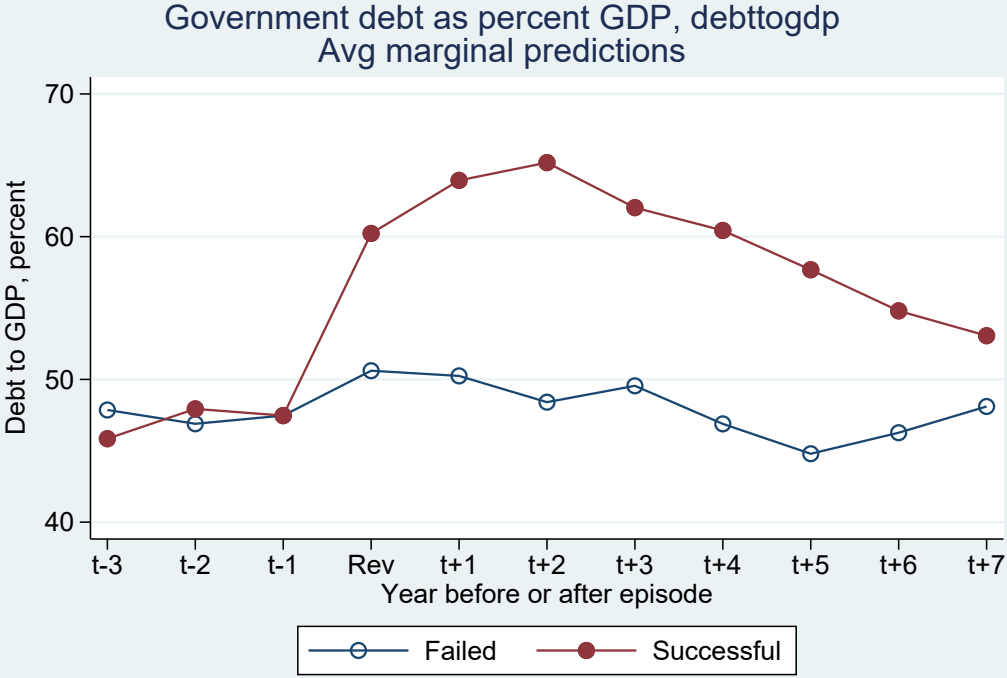

Annual inflation (windsorized)
Avg marginal predictions
Percent inflation
50
40
30
20
10
0
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #32

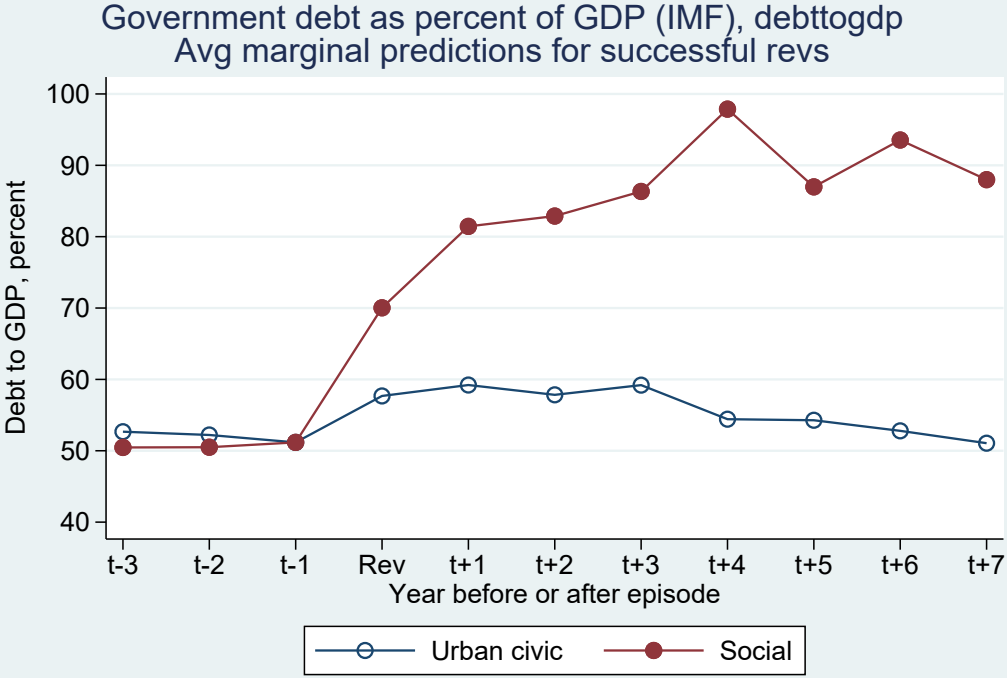


Graph #33

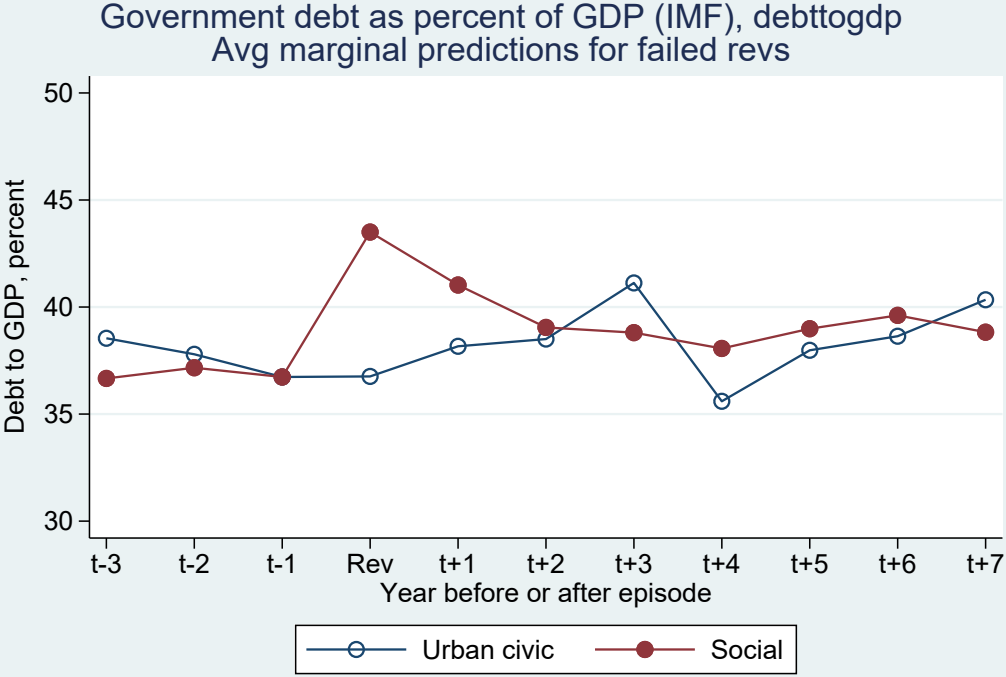
SUCCESSFUL URBAN CIVIC VS. MATCHED CASES


Government debt as percent GDP, debttogdp
Avg marginal predictions
Debt to GDP, percent
70
60
50
40
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Failed
Successful

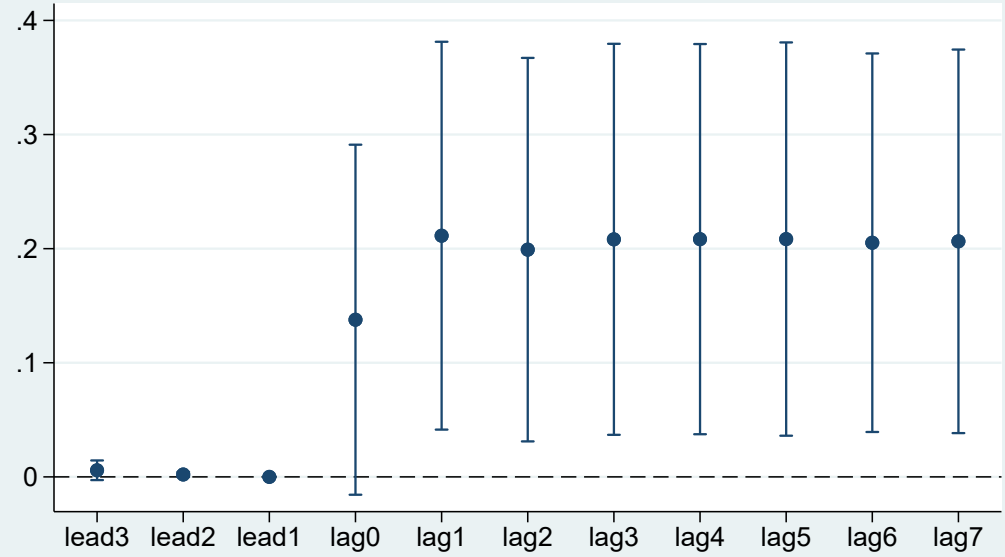
Graph #34


Government debt as percent of GDP (IMF), debttogdp
Avg marginal predictions for successful revs
Debt to GDP, percent
100
90
80
70
60
50
40
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Urban civic
Social

Graph #35

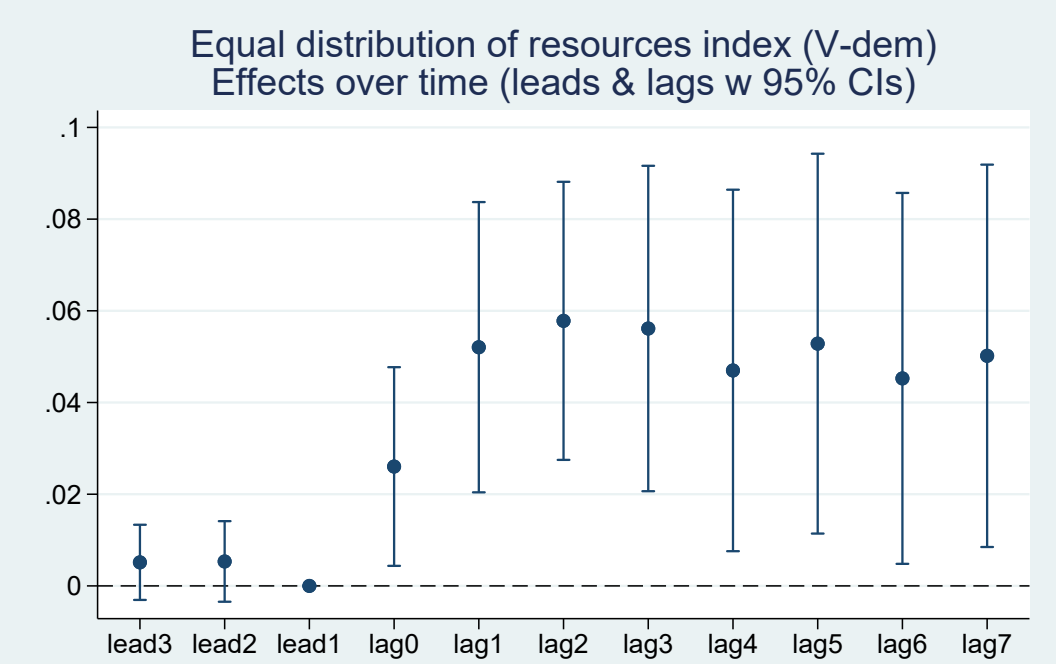

Government debt as percent of GDP (IMF), debttogdp
Avg marginal predictions for failed revs
Debt to GDP, percent
50
45
40
35
30
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Urban civic
Social

Graph #36



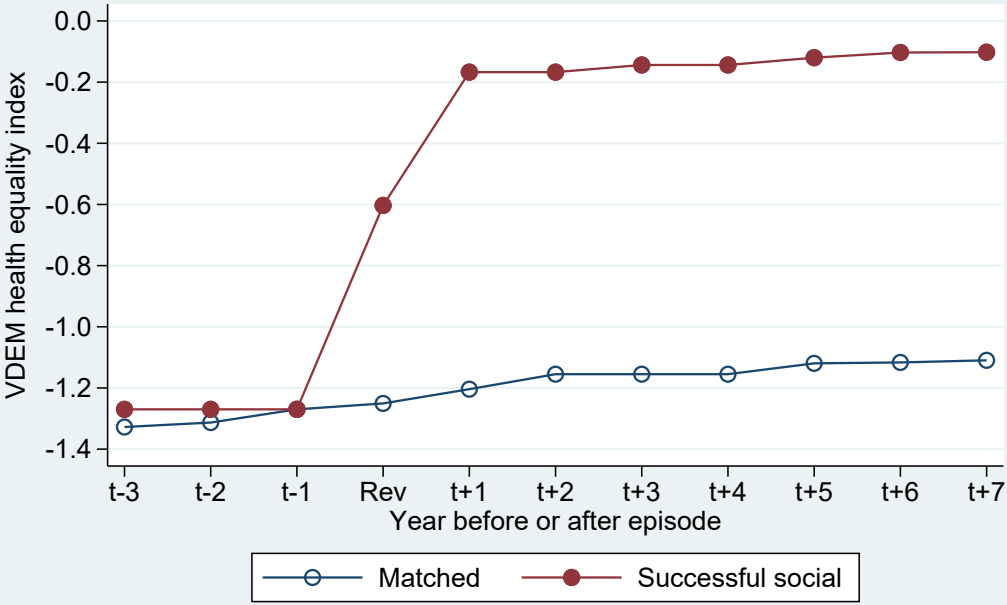
Graph #37

SUCCESSFUL SOCIAL VS. MATCHED CASES

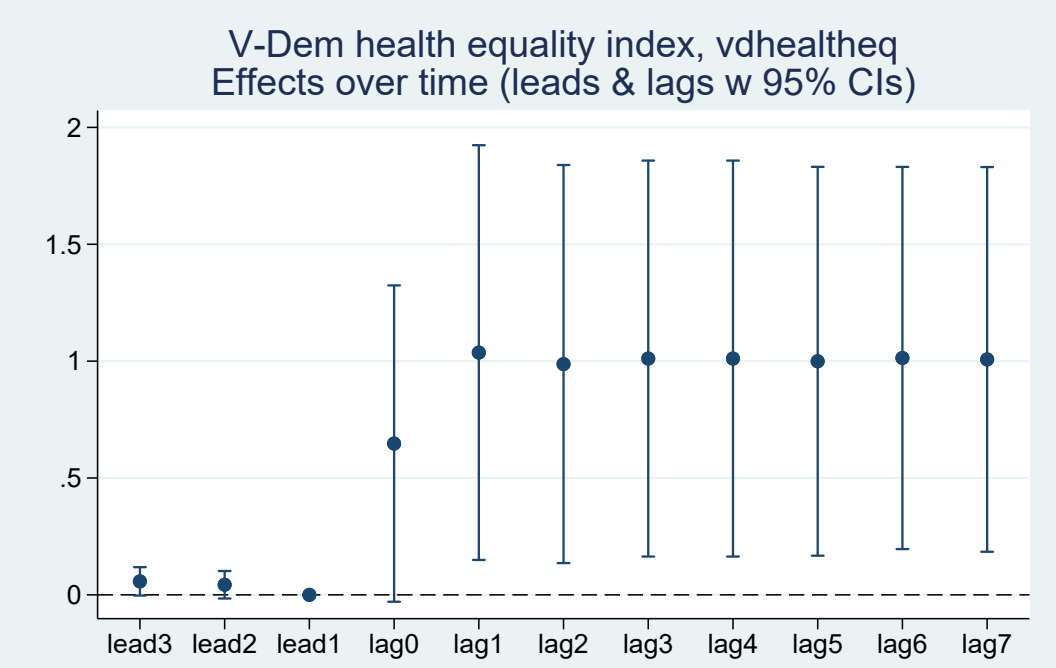


Graph #38

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES

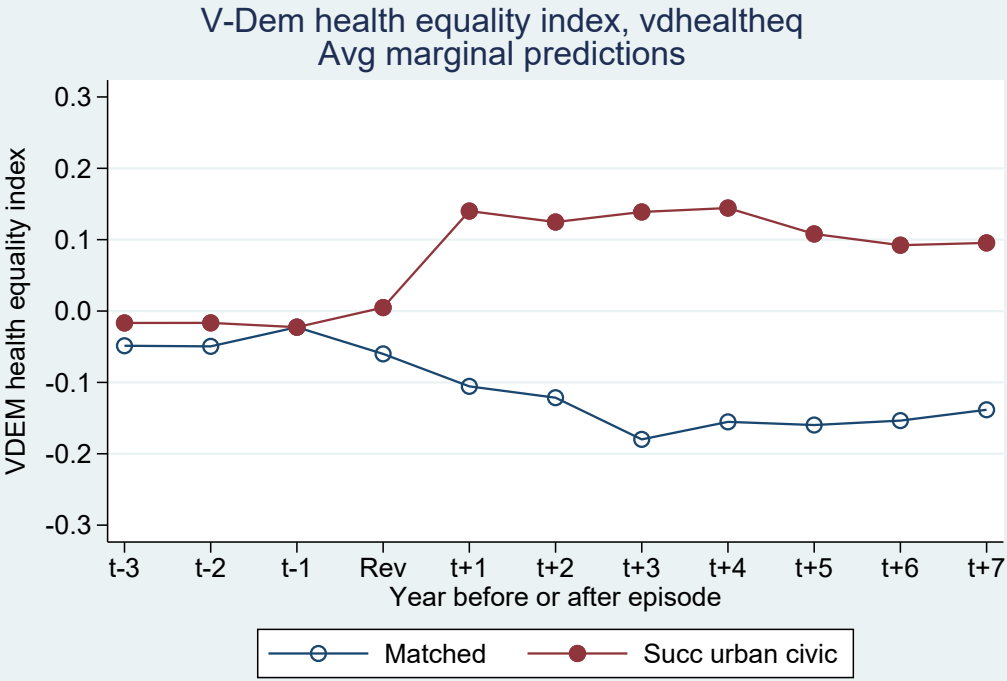

V-Dem health equality index, vdhealtheq
Avg marginal predictions
VDEM health equality index
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
-1.4
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

Graph #39

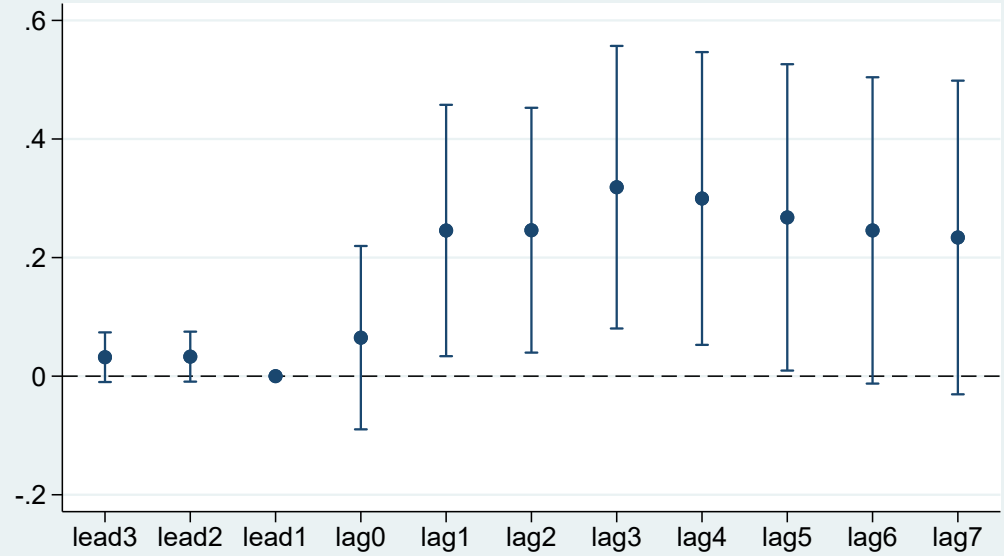


Graph #40

SUCCESSFUL SOCIAL VS. MATCHED CASES

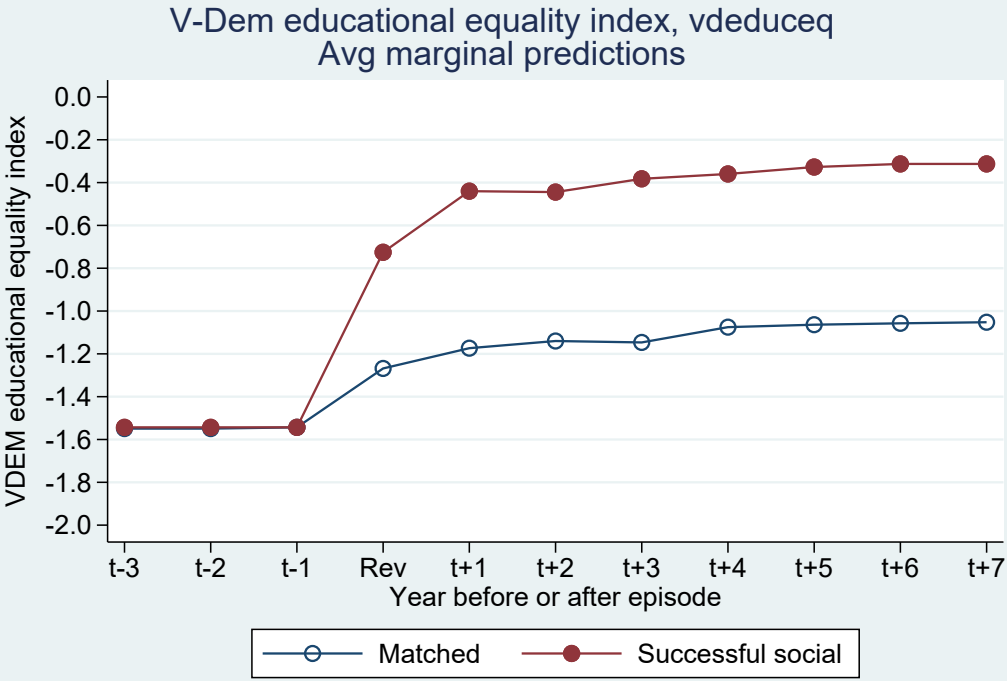

V-Dem health equality index, vdhealtheq
Avg marginal predictions
VDEM health equality index
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #41

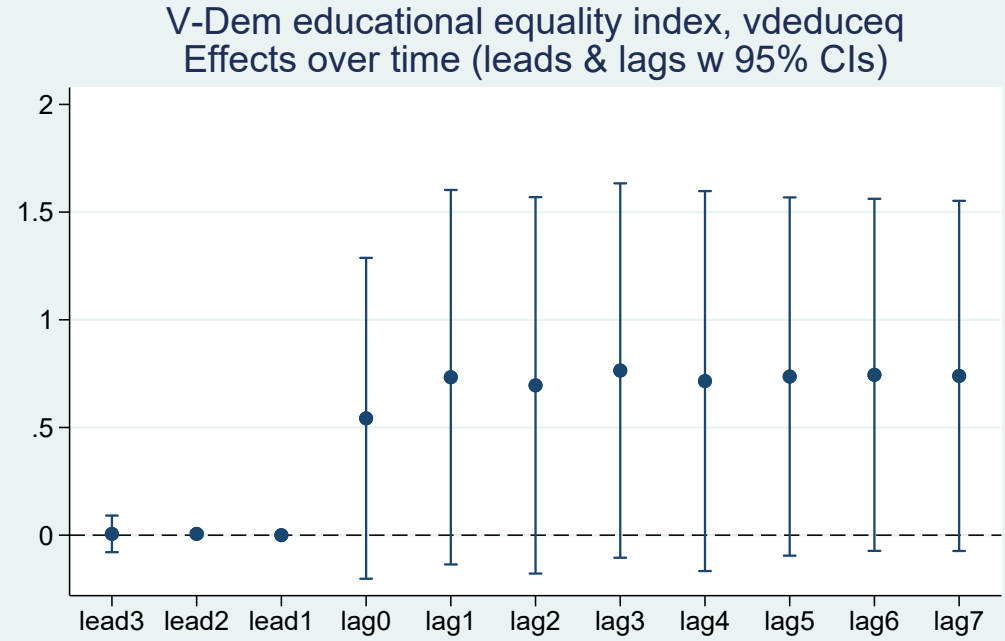


Graph #42

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES

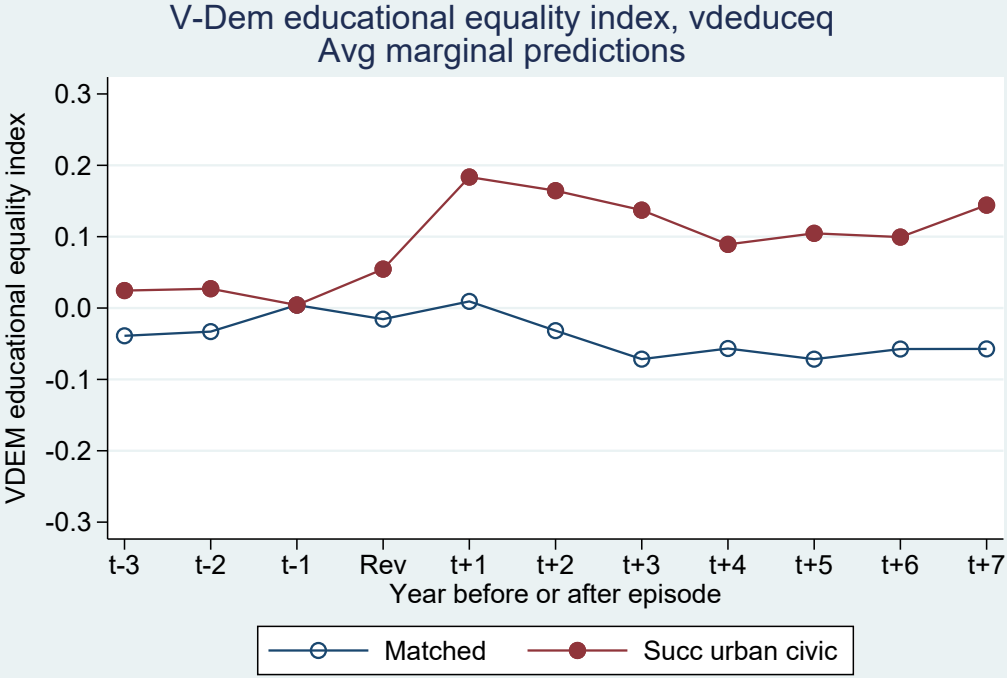

V-Dem educational equality index, vdeduceq
Avg marginal predictions
VDEM educational equality index
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
-1.4
-1.6
-1.8
-2.0
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

Graph #43

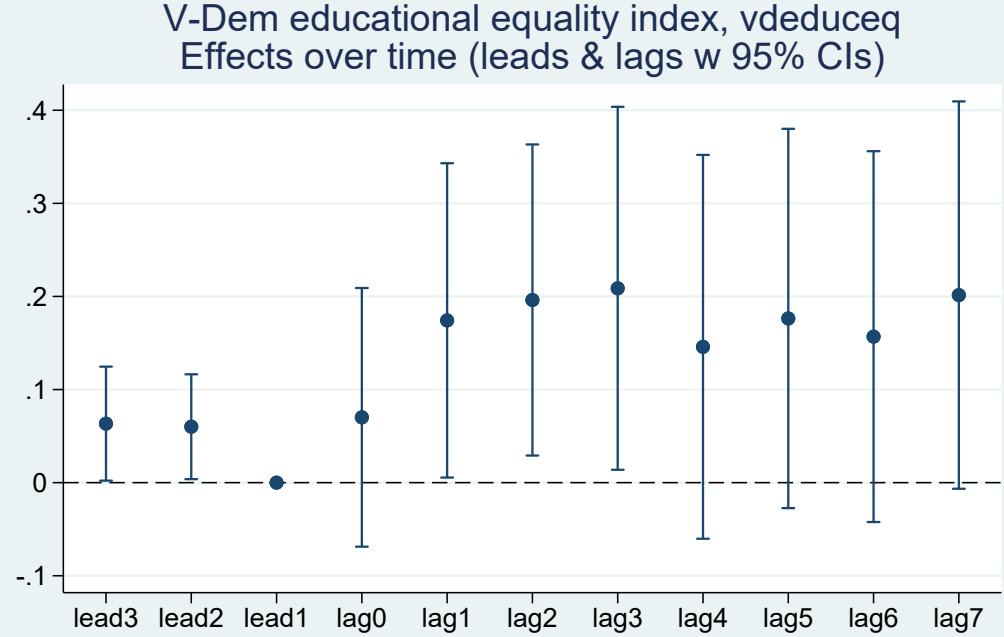


Graph #44

SUCCESSFUL SOCIAL VS. MATCHED CASES

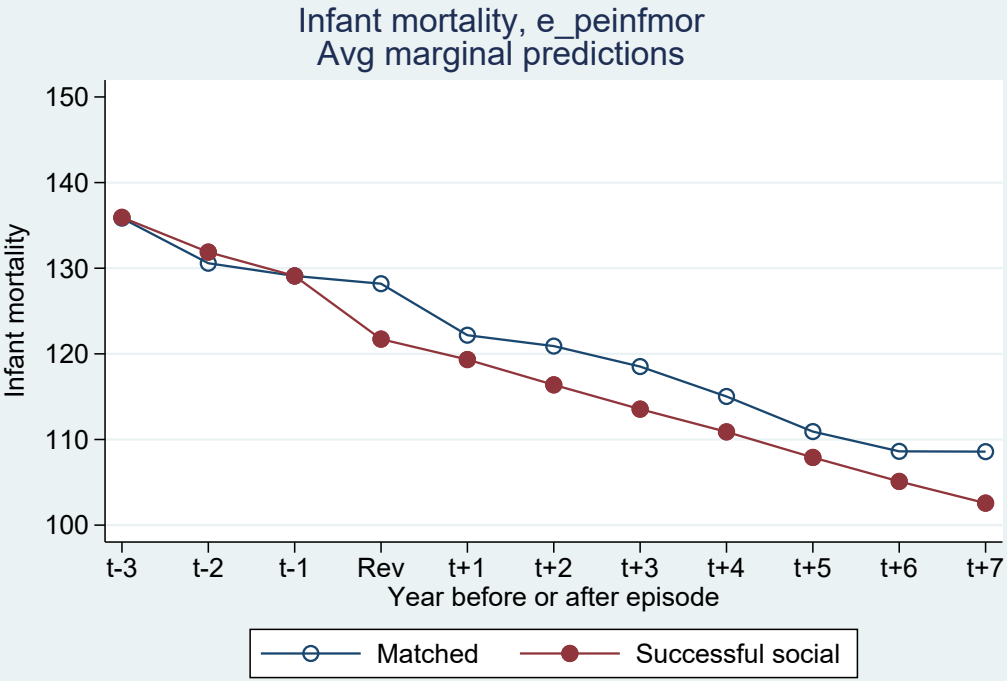

V-Dem educational equality index, vdeduceq
Avg marginal predictions
VDEM educational equality index
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #45

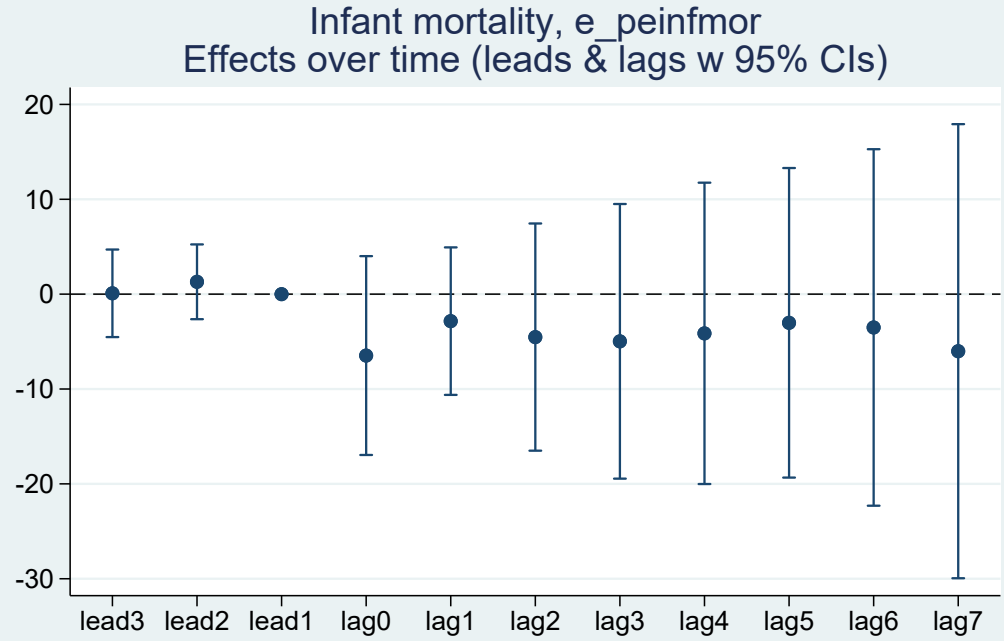


Graph #46

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES

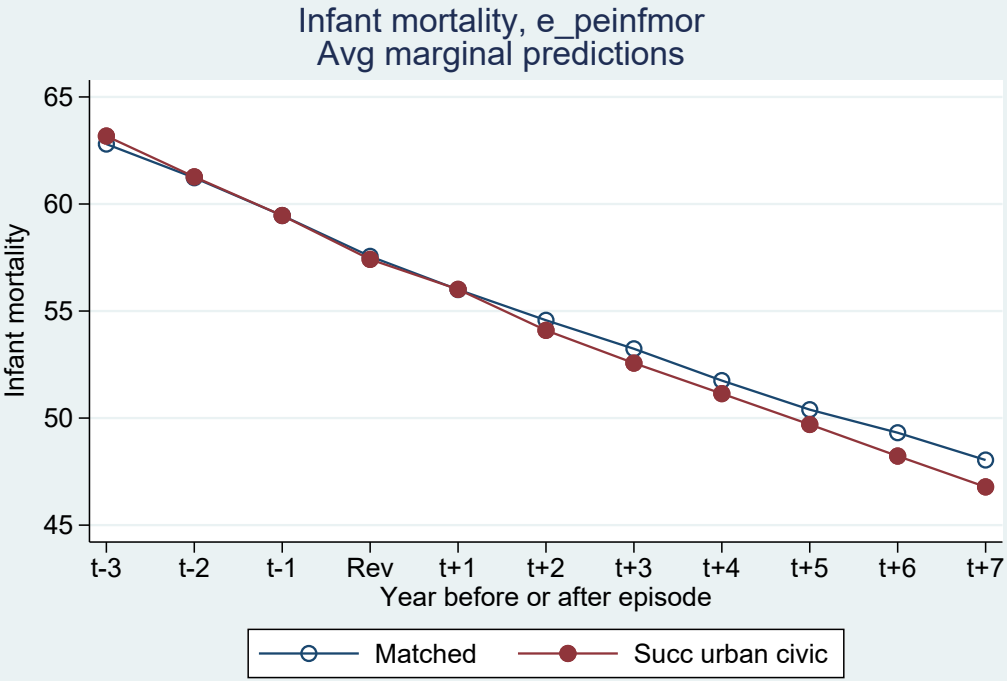

Infant mortality, e_peinfmor
Avg marginal predictions
Infant mortality
150
140
130
120
110
100
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

Graph #55

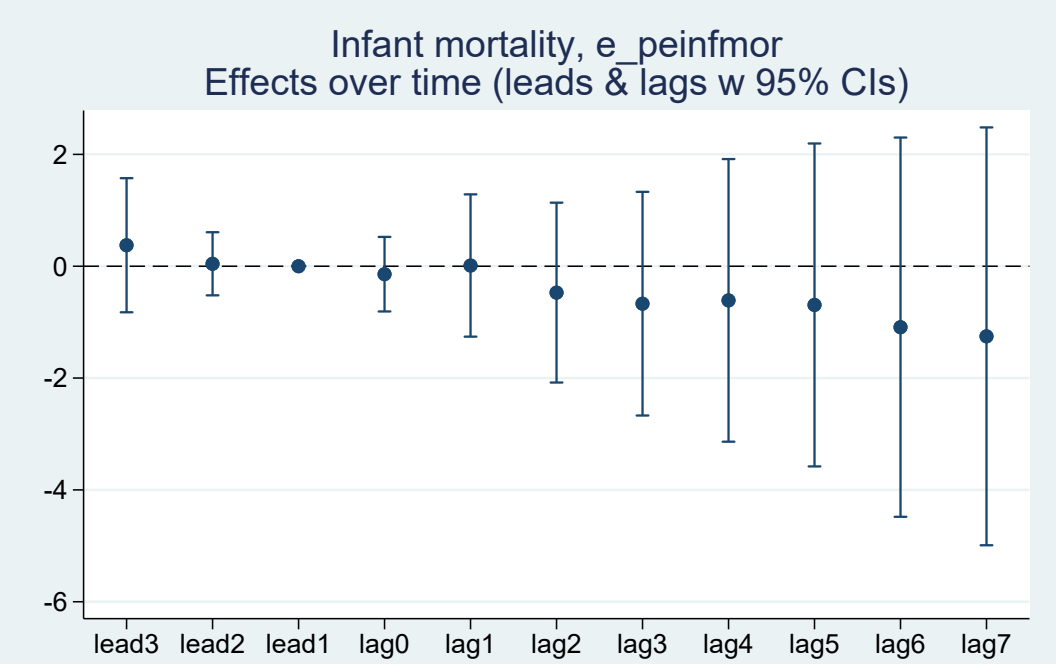


Graph #48

SUCCESSFUL SOCIAL VS. MATCHED CASES

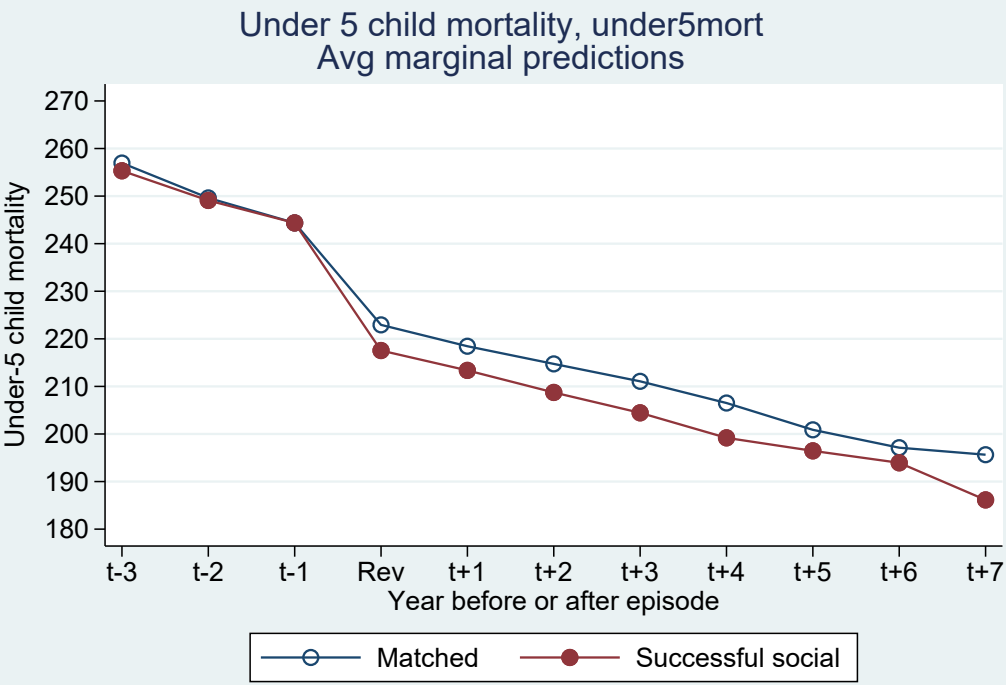

Infant mortality, e_peinfmor
Avg marginal predictions
Infant mortality
65
60
55
50
45
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #49

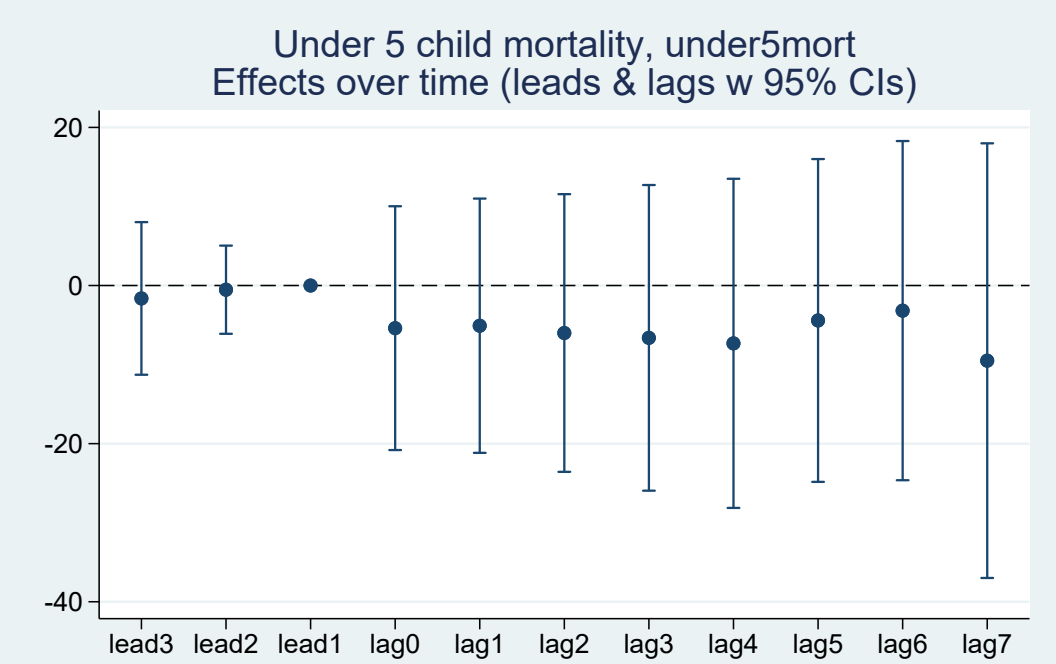


Graph #50

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES

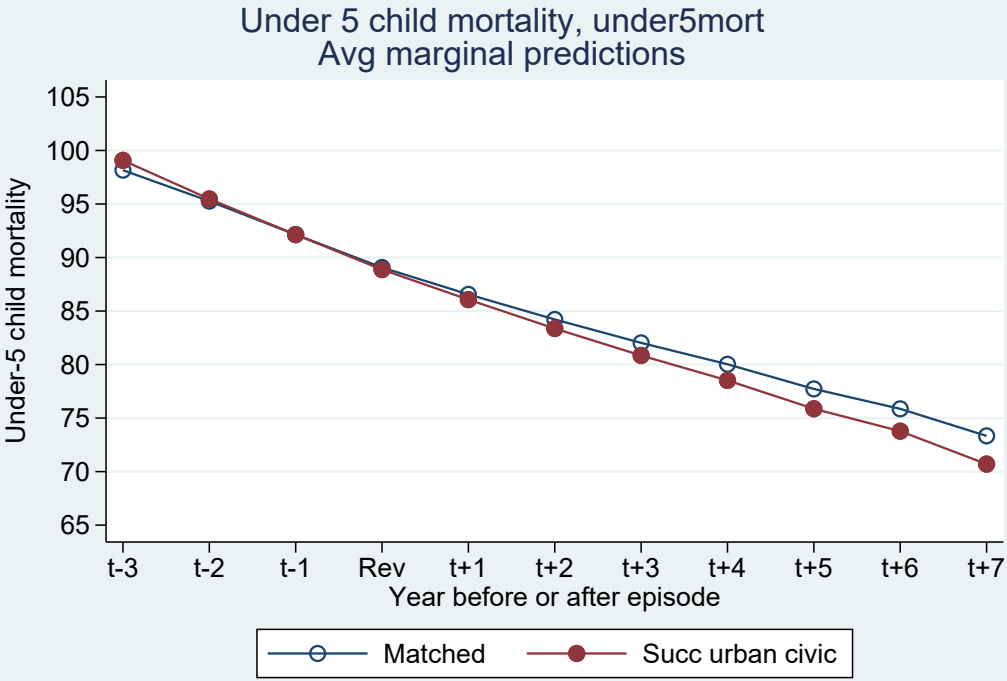

Under 5 child mortality, under5mort
Avg marginal predictions
Under-5 child mortality
270
260
250
240
230
220
210
200
190
180
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

Graph #51

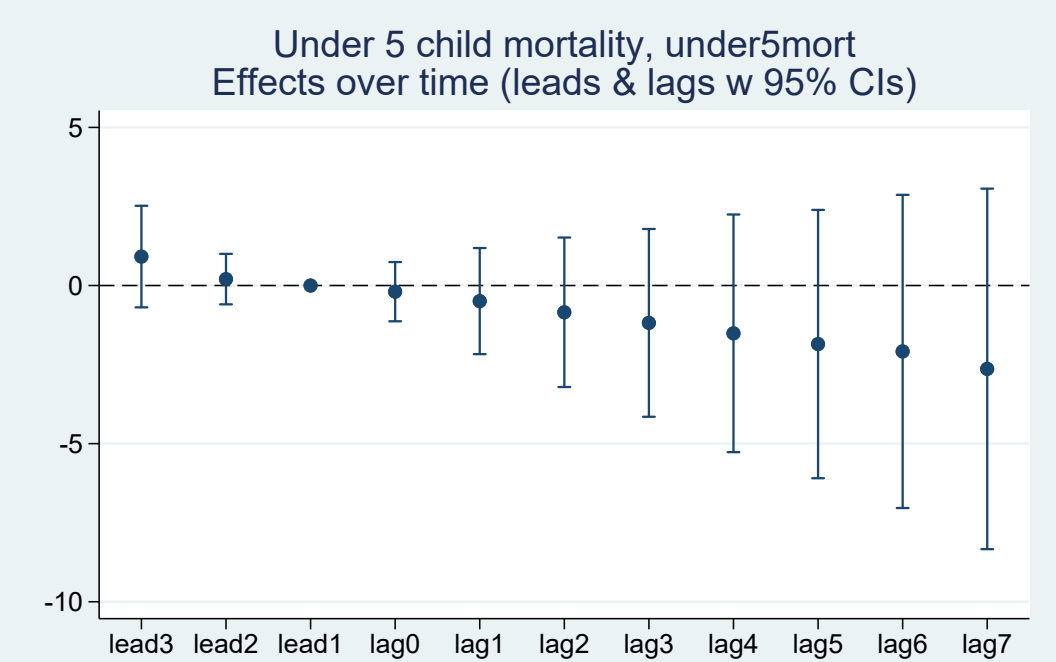


Graph #52

SUCCESSFUL SOCIAL VS. MATCHED CASES

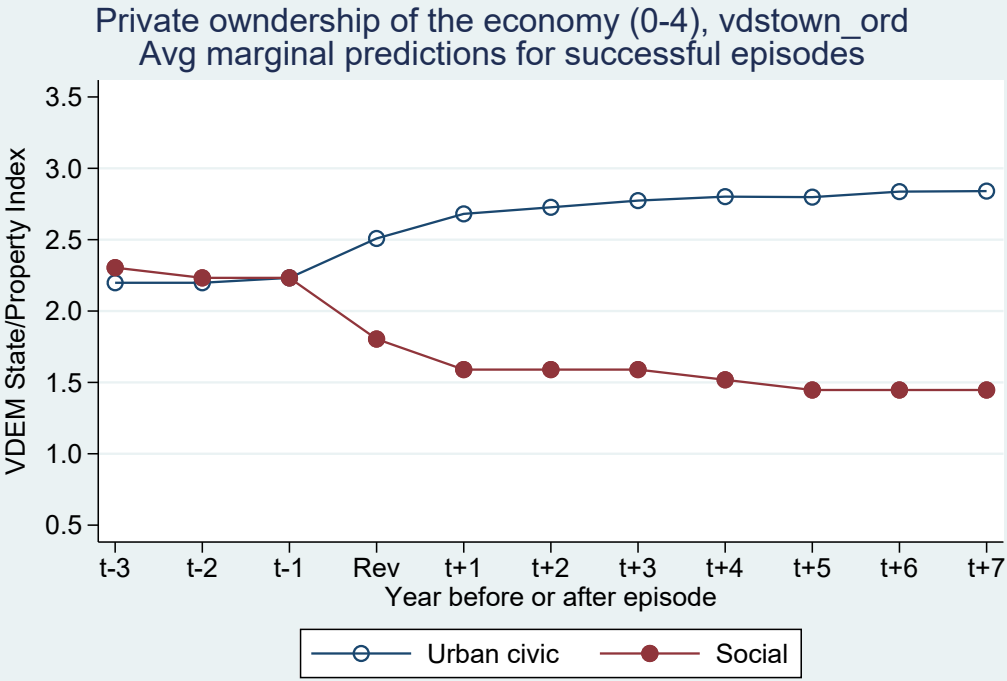

Under 5 child mortality, under5mort
Avg marginal predictions
Under-5 child mortality
105
100
95
90
85
80
75
70
65
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #53

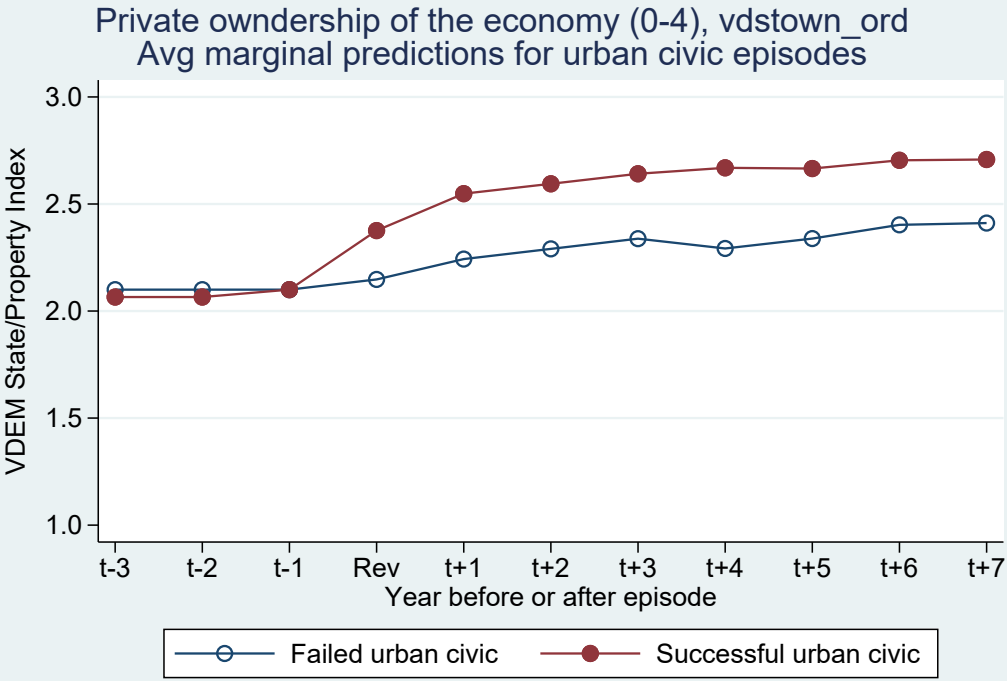


Graph #54

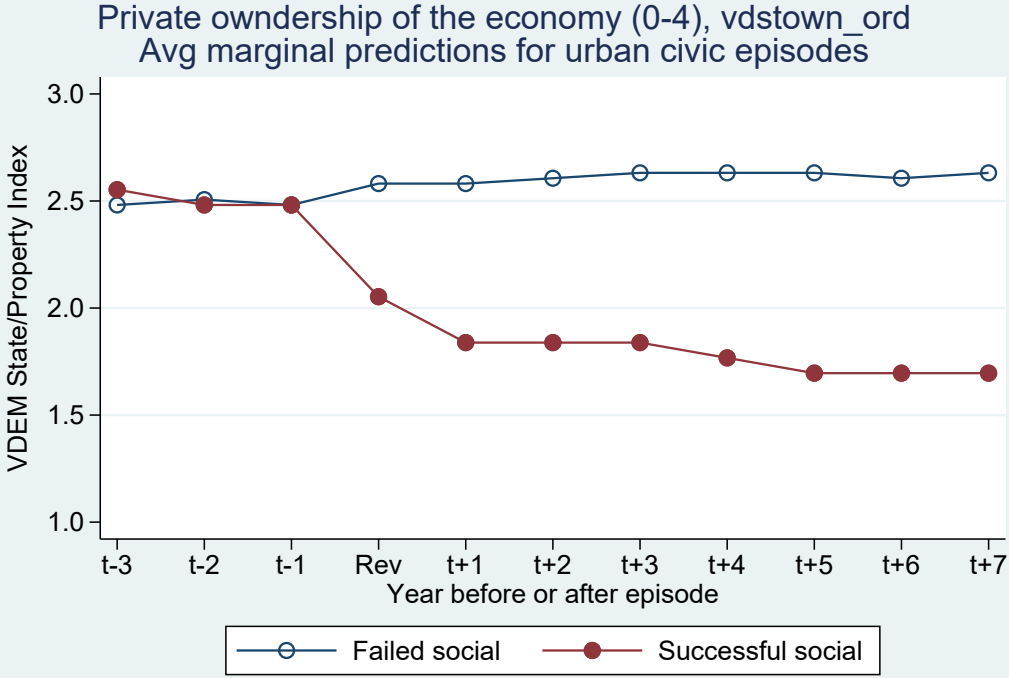
SUCCESSFUL URBAN CIVIC VS. MATCHED CASES


Private owndership of the economy (0-4), vdstown_ord
Avg marginal predictions for successful episodes
VDEM State/Property Index
3.5
3.0
2.5
2.0
1.5
1.0
0.5
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Urban civic
Social

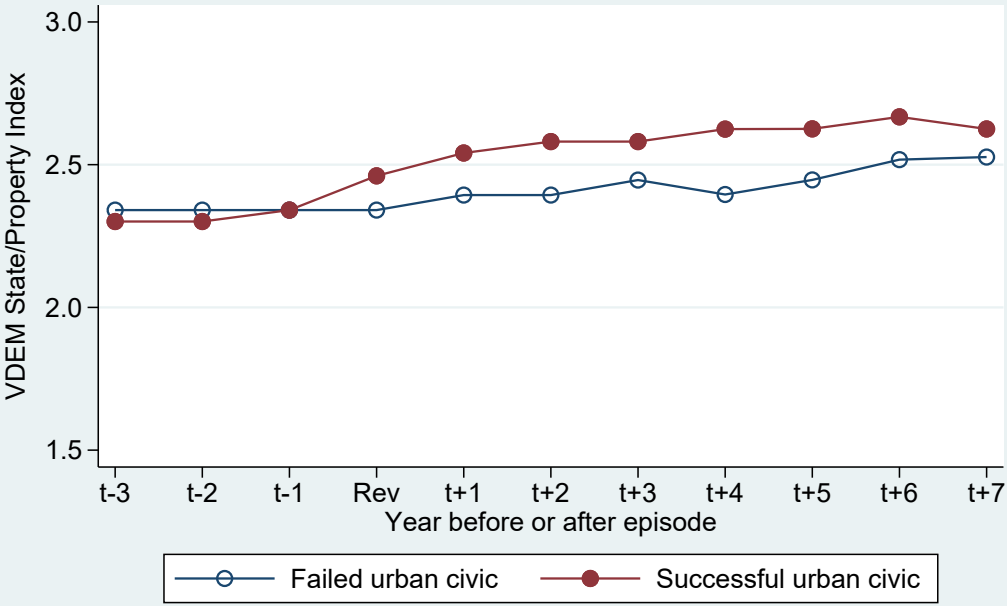
Graph #55


Private owndership of the economy (0-4), vdstown_ord
Avg marginal predictions for urban civic episodes
VDEM State/Property Index
3.0
2.5
2.0
1.5
1.0
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Failed urban civic
Successful urban civic

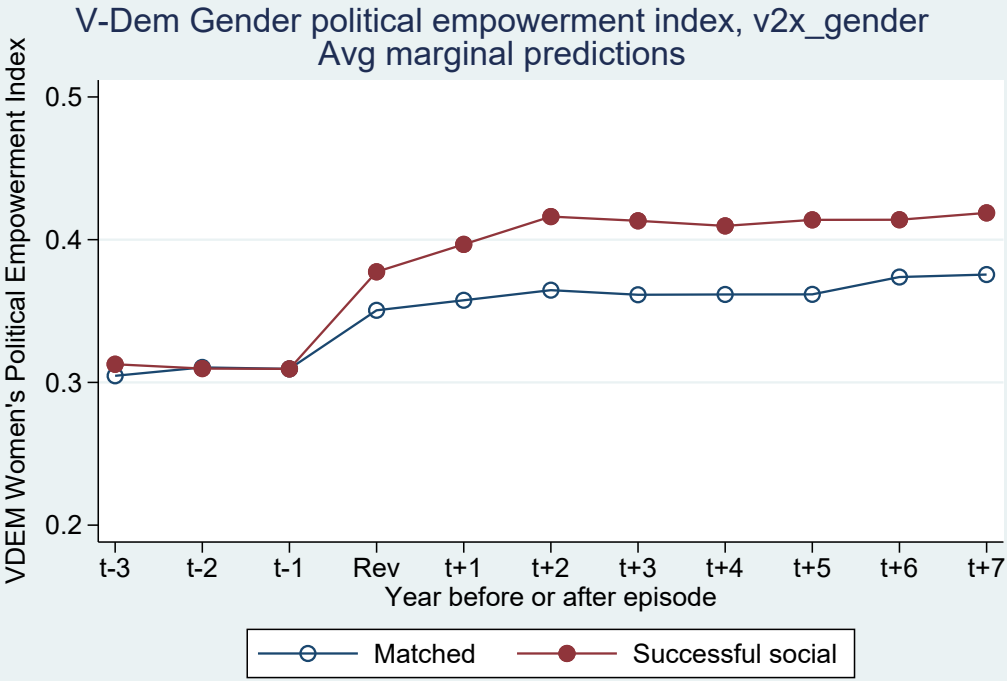
Graph #56


Private owndership of the economy (0-4), vdstown_ord
Avg marginal predictions for urban civic episodes
VDEM State/Property Index
3.0
2.5
2.0
1.5
1.0
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Failed social
Successful social

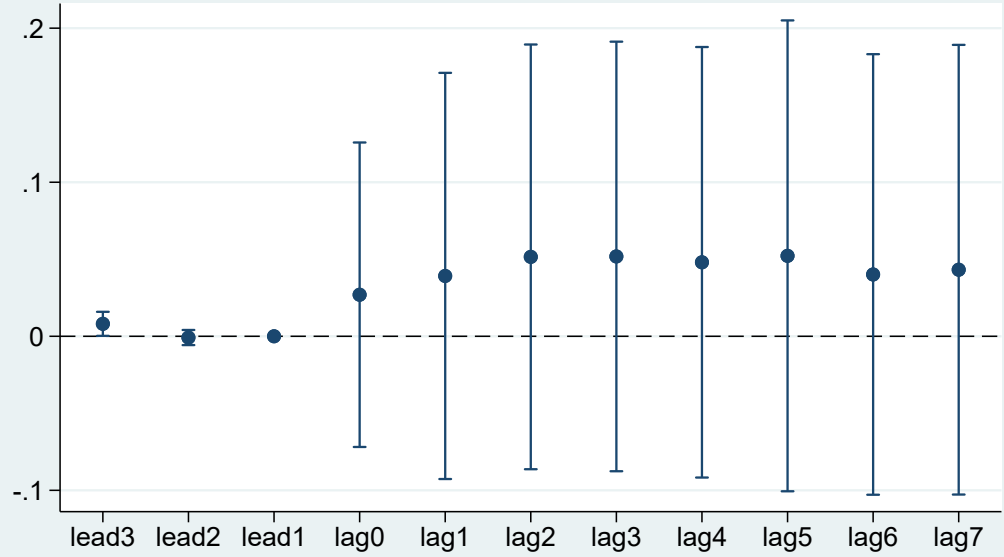
Graph #57


Private owndership of the economy (0-4), vdstown_ord
Avg marginal predictions for urban civic (no post-comm)
VDEM State/Property Index
3.0
2.5
2.0
1.5
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Failed urban civic
Successful urban civic

Graph #58

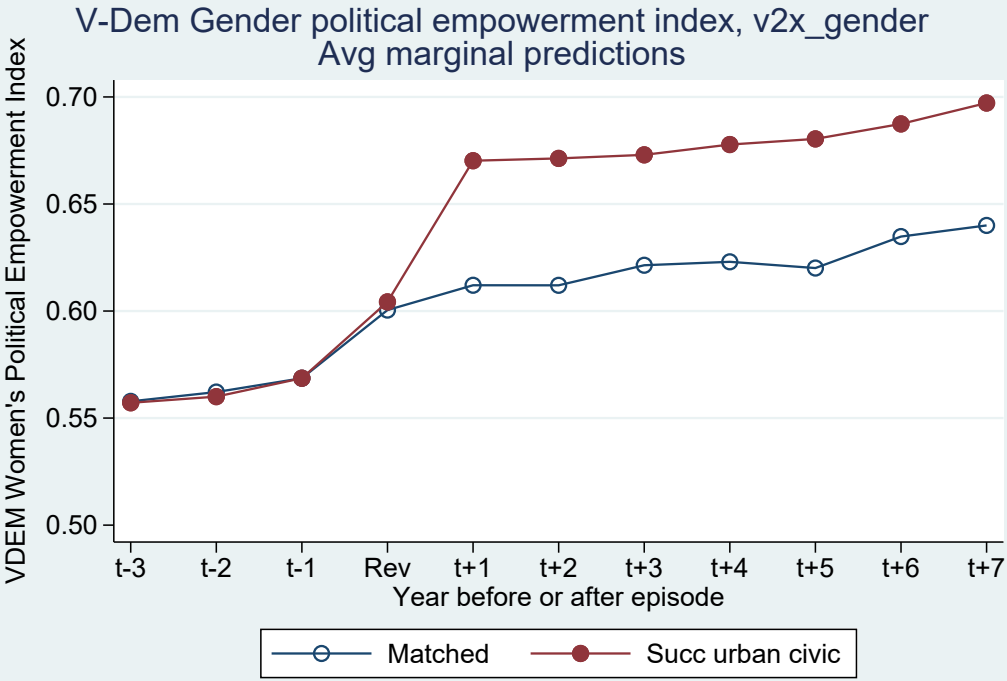

V-Dem Gender political empowerment index, v2x_gender
Avg marginal predictions
VDEM Women's Political Empowerment Index
0.5
0.4
0.3
0.2
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

Graph #59

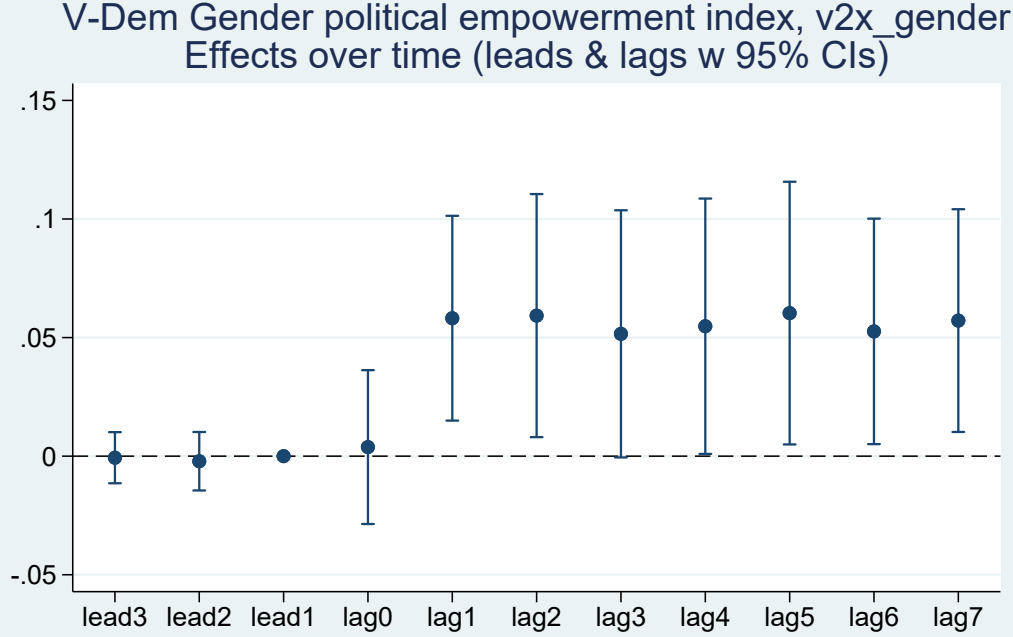


Graph #60

SUCCESSFUL SOCIAL VS. MATCHED CASES

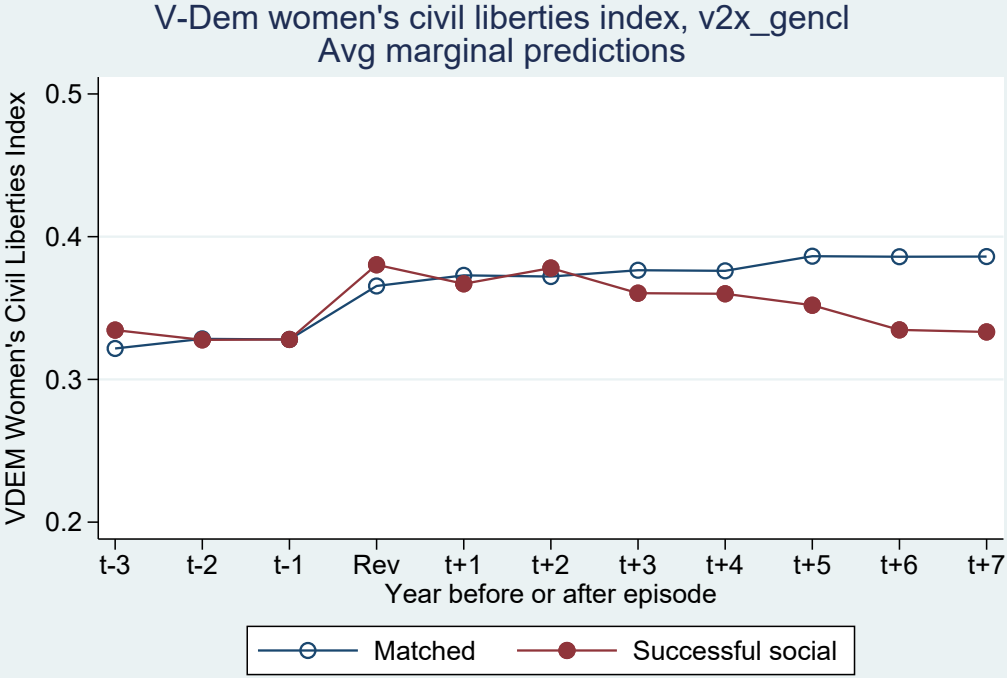

V-Dem Gender political empowerment index, v2x_gender
Avg marginal predictions
VDEM Women's Political Empowerment Index
0.70
0.65
0.60
0.55
0.50
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #61

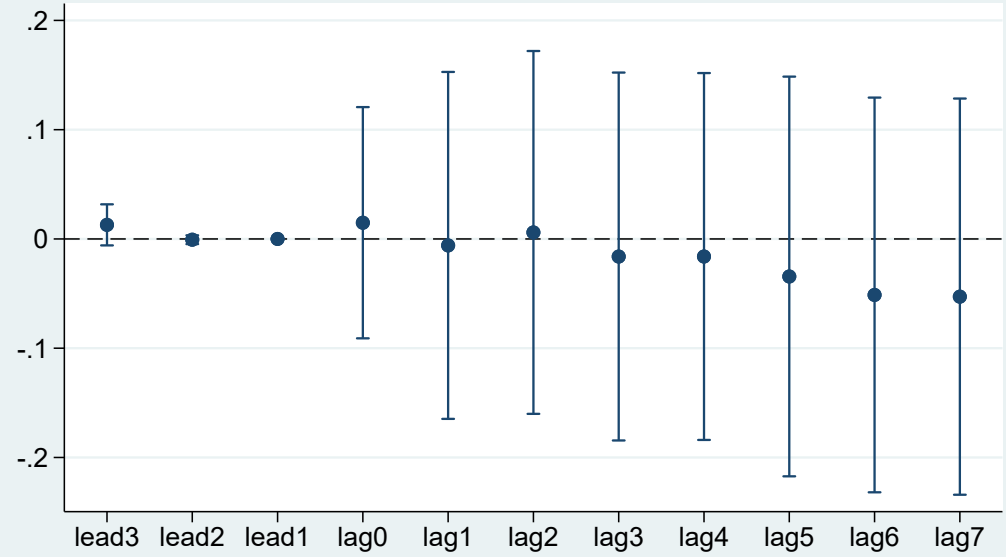


Graph #62

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES

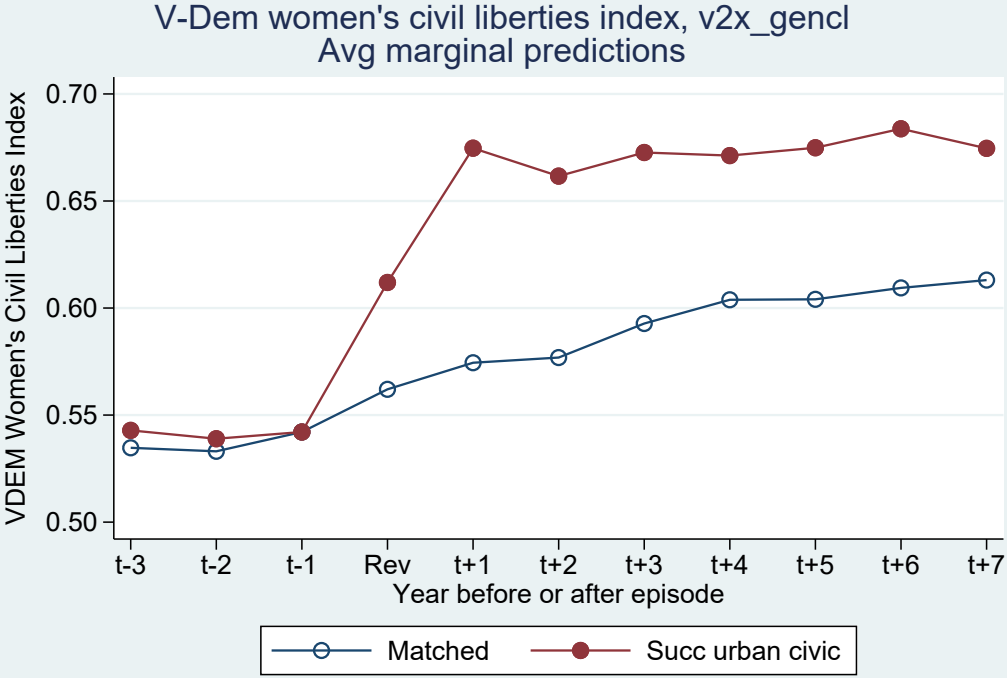

V-Dem women's civil liberties index, v2x_gencl
Avg marginal predictions
VDEM Women's Civil Liberties Index
0.5
0.4
0.3
0.2
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

Graph #63

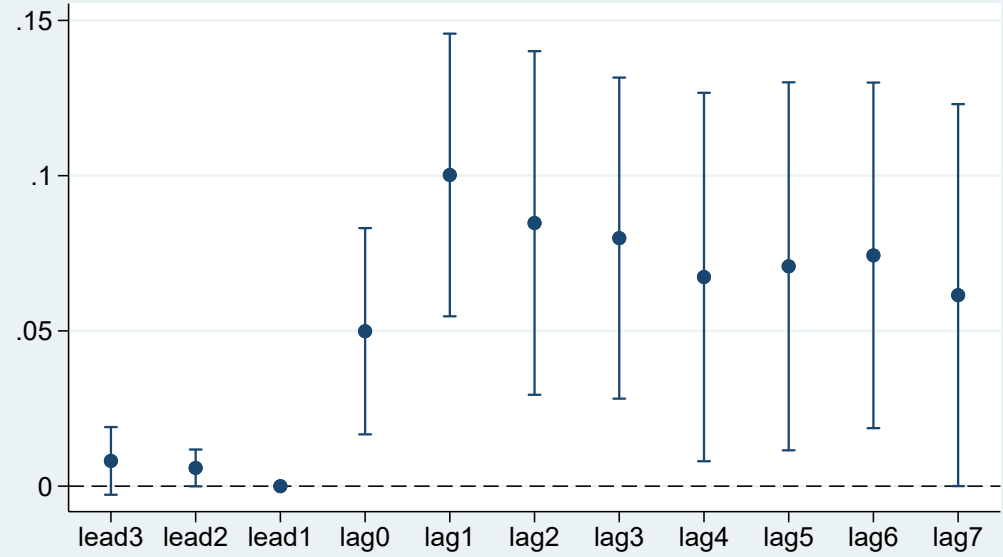


Graph #64

SUCCESSFUL SOCIAL VS. MATCHED CASES

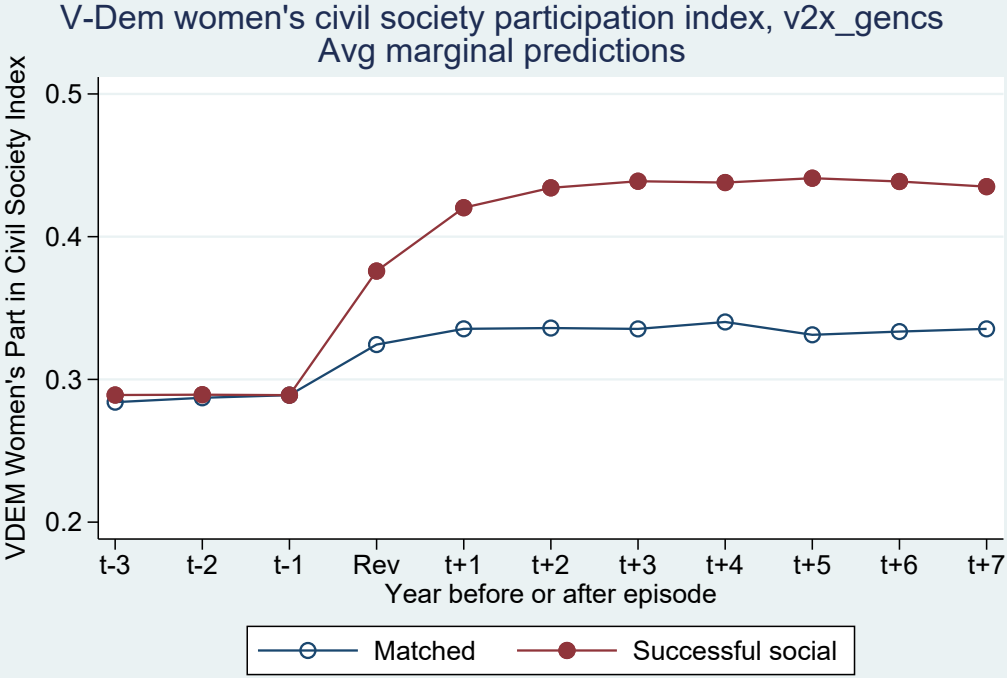

V-Dem women's civil liberties index, v2x_gencl
Avg marginal predictions
VDEM Women's Civil Liberties Index
0.70
0.65
0.60
0.55
0.50
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #65



Graph #66

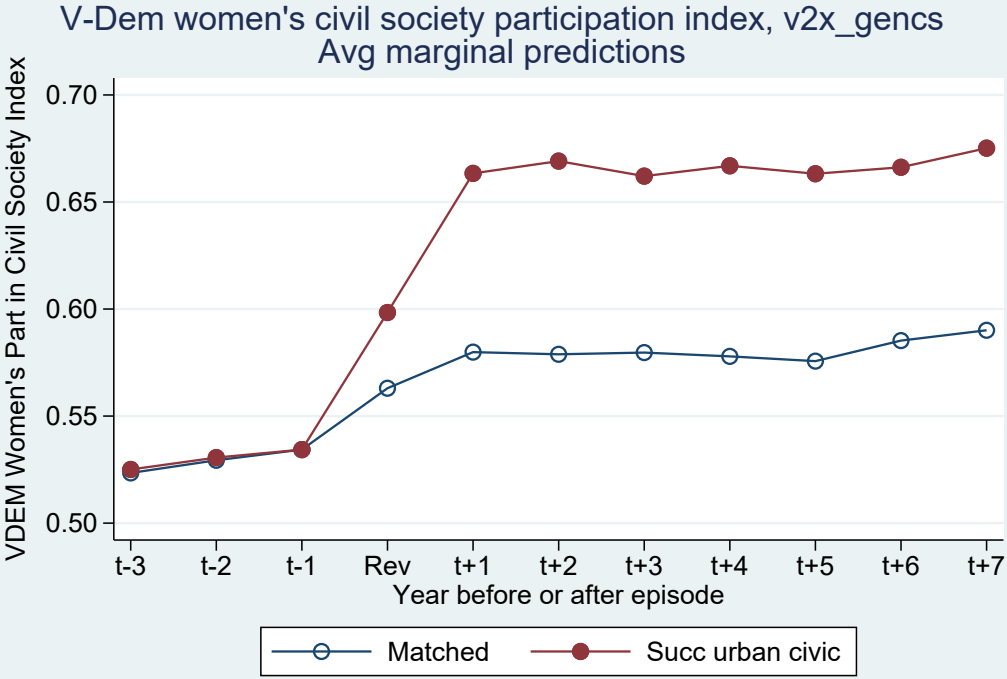
SUCCESSFUL URBAN CIVIC VS. MATCHED CASES


V-Dem women's civil society participation index, v2x_gencs
Avg marginal predictions
VDEM Women's Part in Civil Society Index
0.5
0.4
0.3
0.2
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

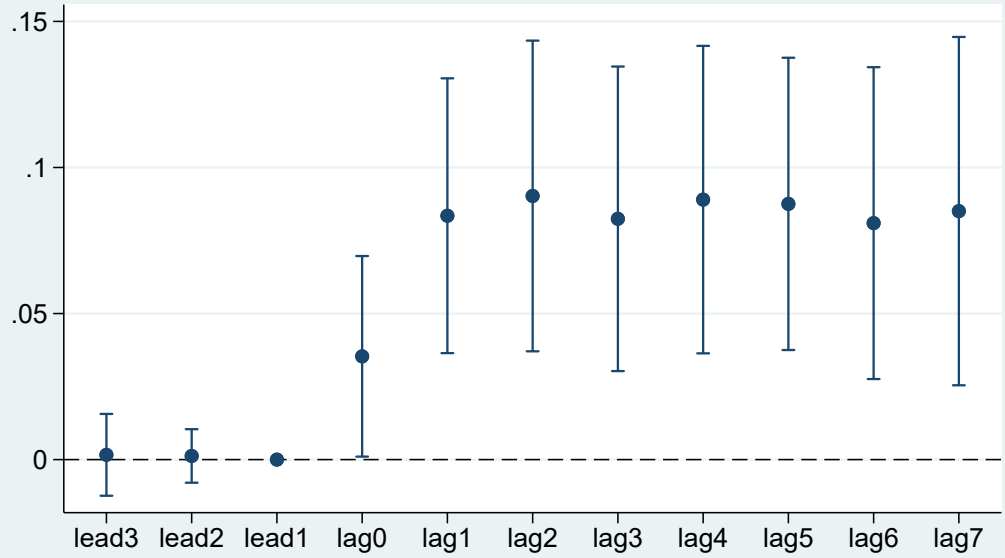
Graph #67

Graph #68

SUCCESSFUL SOCIAL VS. MATCHED CASES

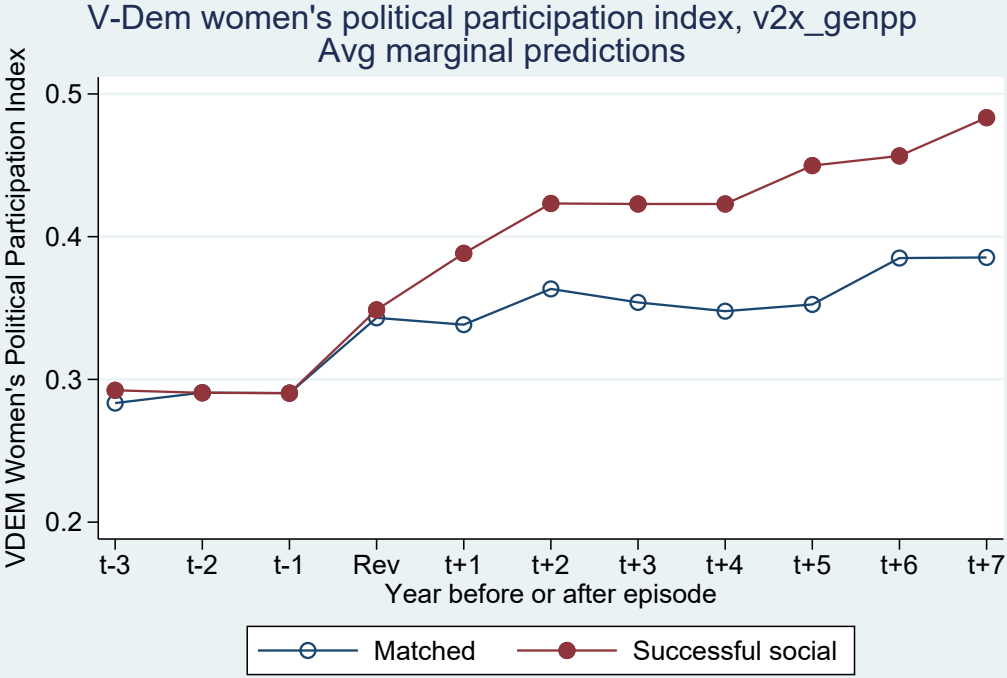

V-Dem women's civil society participation index, v2x_gencs
Avg marginal predictions
VDEM Women's Part in Civil Society Index
0.70
0.65
0.60
0.55
0.50
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #69

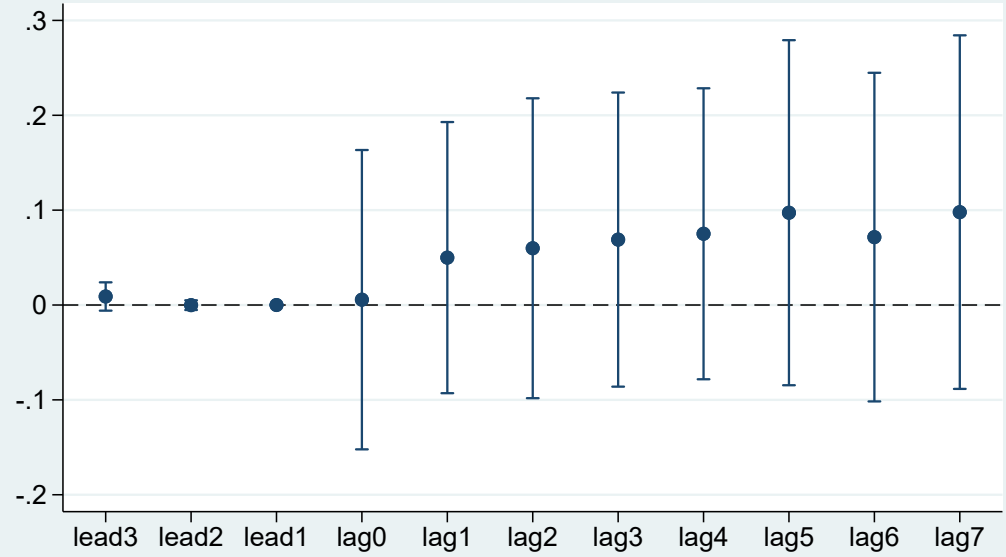


Graph #70

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES

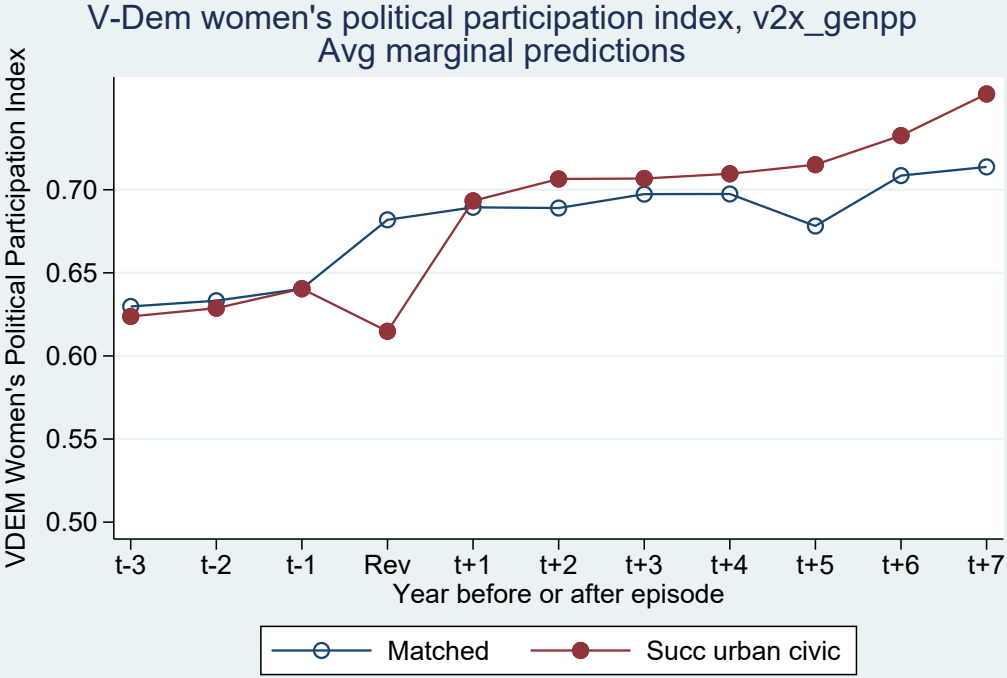

V-Dem women's political participation index, v2x_genpp
Avg marginal predictions
VDEM Women's Political Participation Index
0.5
0.4
0.3
0.2
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Successful social

Graph #71

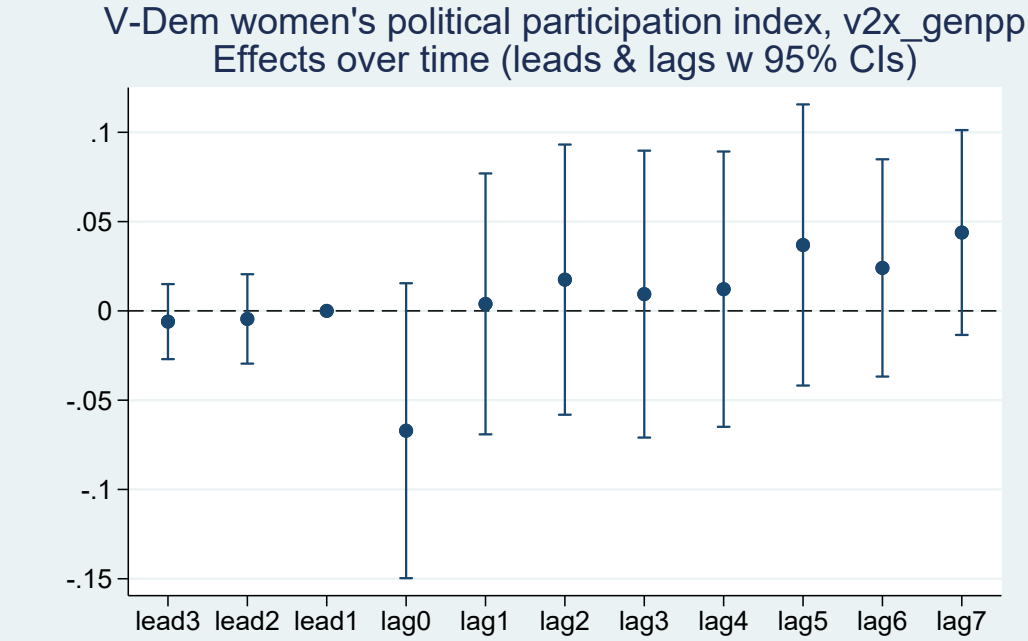


Graph #72

SUCCESSFUL SOCIAL VS. MATCHED CASES

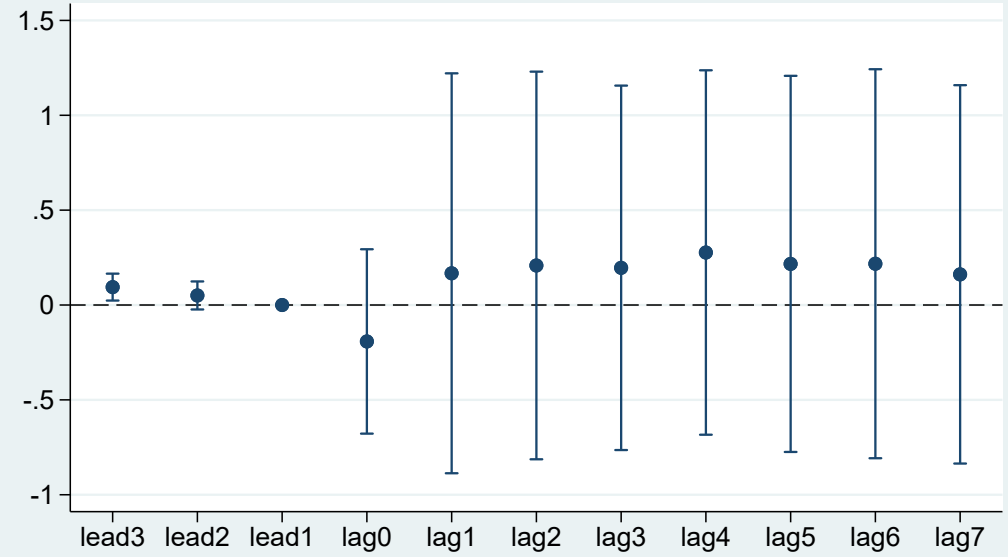

V-Dem women's political participation index, v2x_genpp
Avg marginal predictions
VDEM Women's Political Participation Index
0.50
0.55
0.60
0.65
0.70
t-3
t-2
t-1
Rev
t+1
t+2
t+3
t+4
t+5
t+6
t+7
Year before or after episode
Matched
Succ urban civic

Graph #73



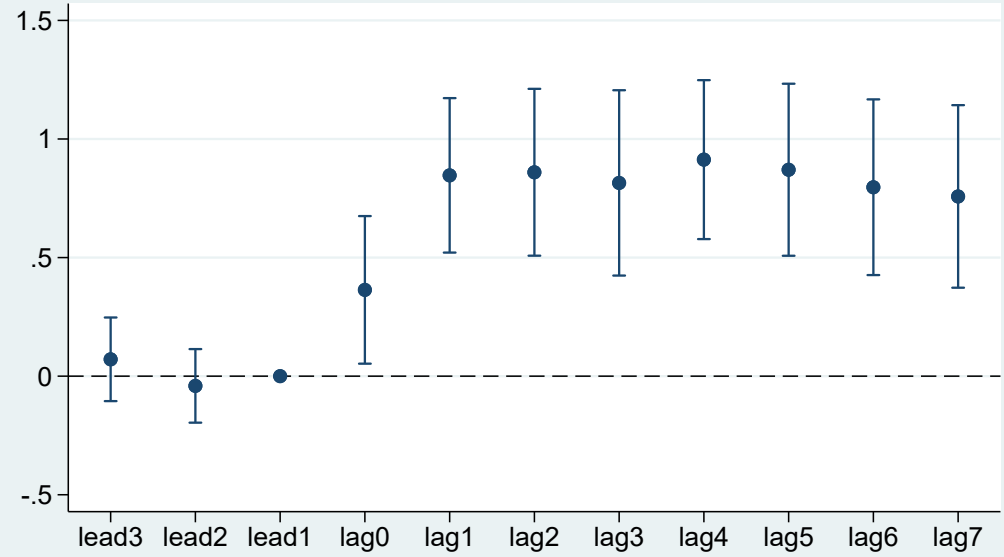
Graph #74

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES



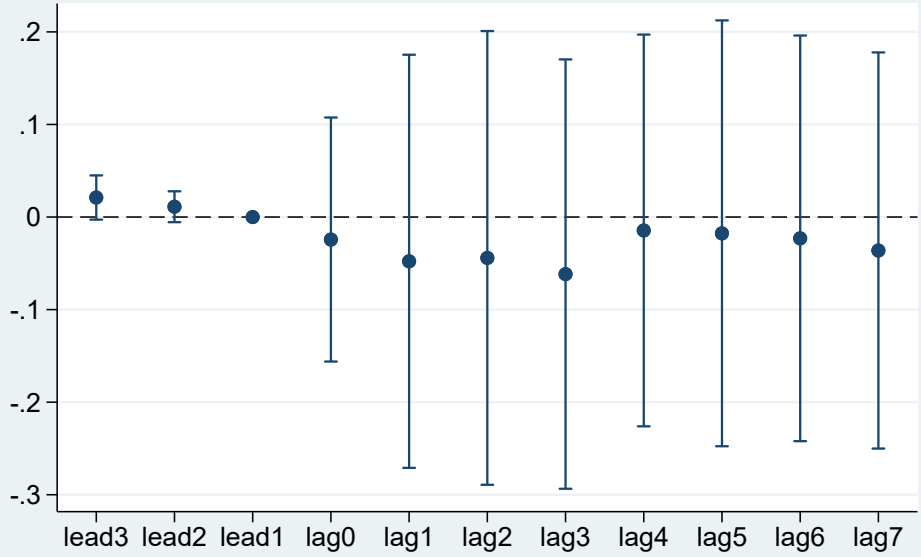
Graph #75

SUCCESSFUL SOCIAL VS. MATCHED CASES



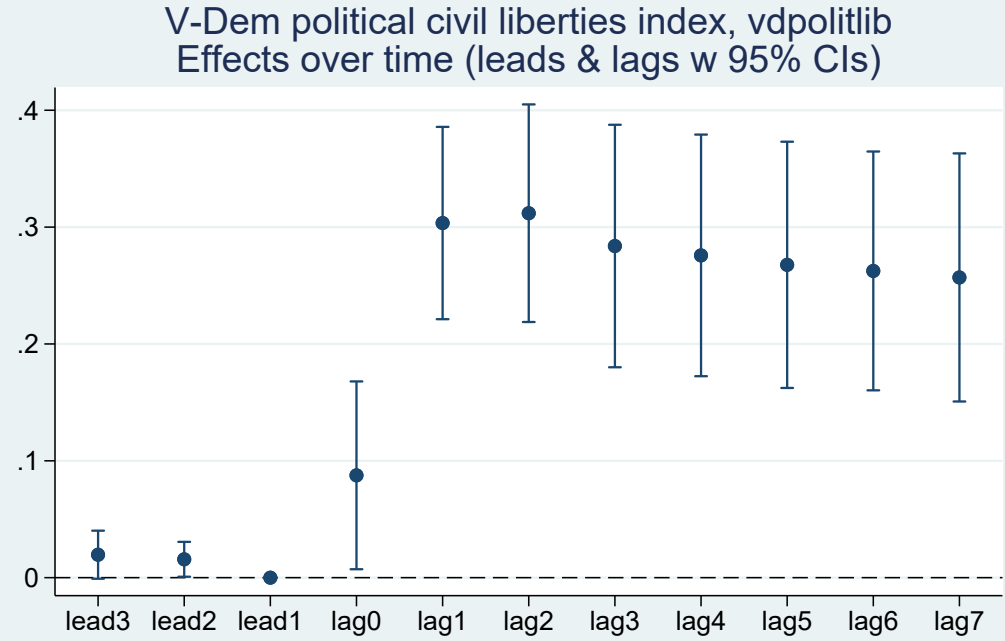
Graph #76

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES



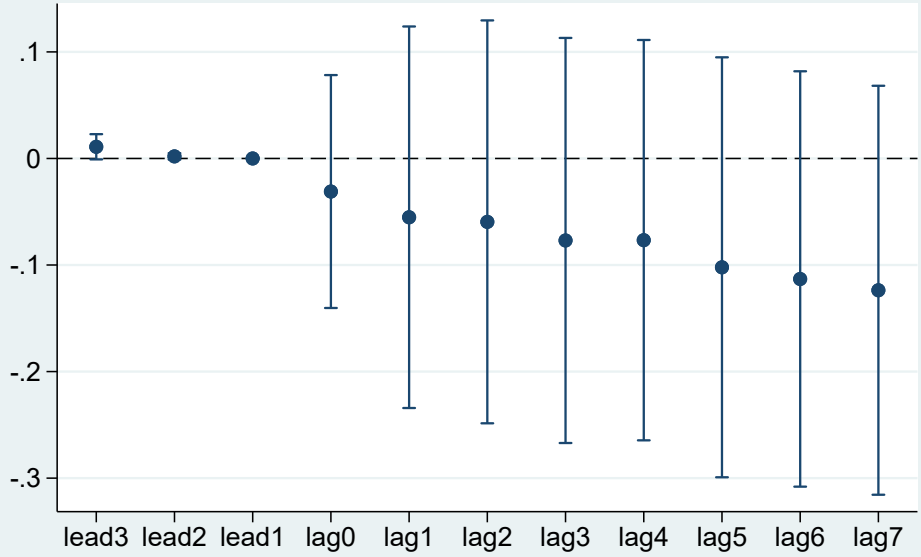
Graph #77

SUCCESSFUL SOCIAL VS. MATCHED CASES



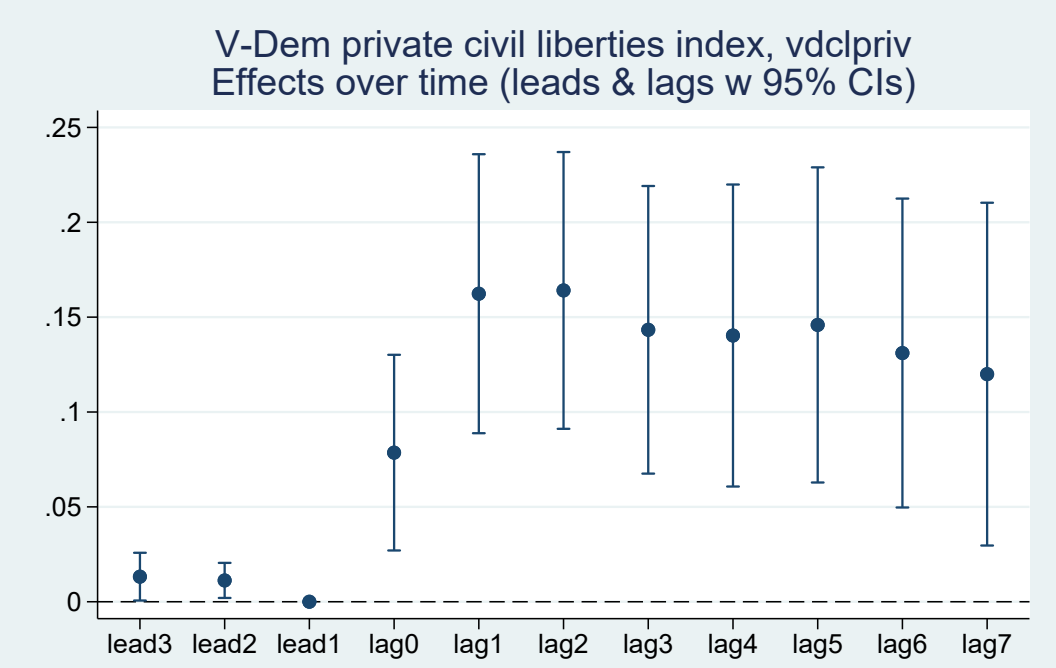
Graph #78

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES



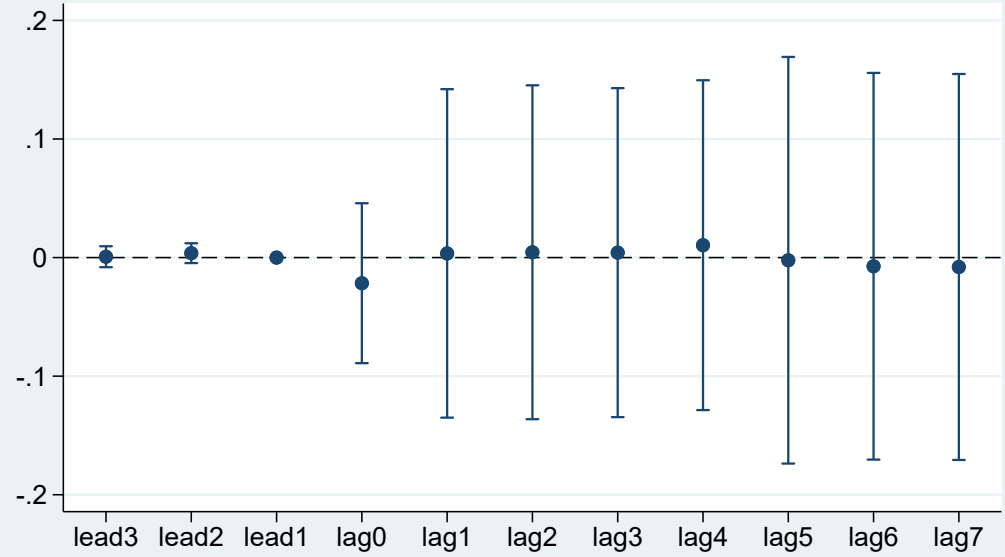
Graph #79

SUCCESSFUL SOCIAL VS. MATCHED CASES



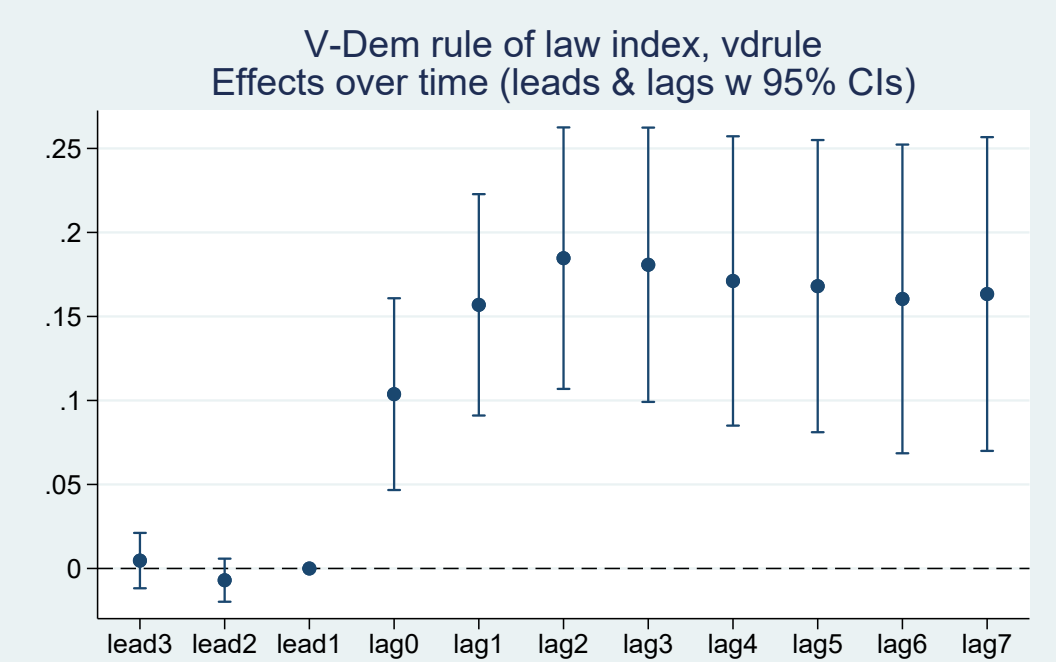
Graph #80

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES



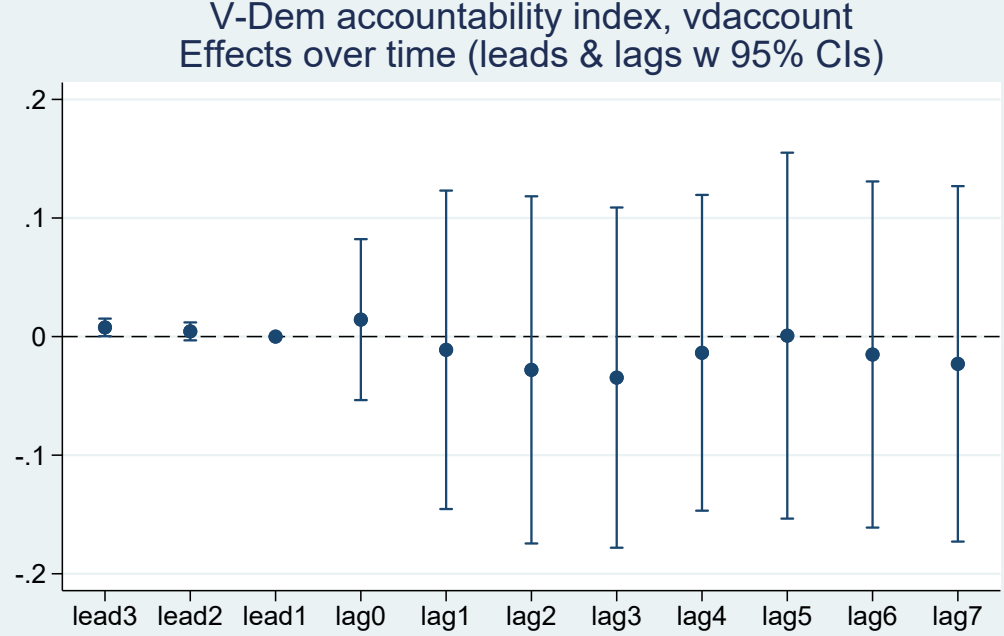
Graph #81

SUCCESSFUL SOCIAL VS. MATCHED CASES



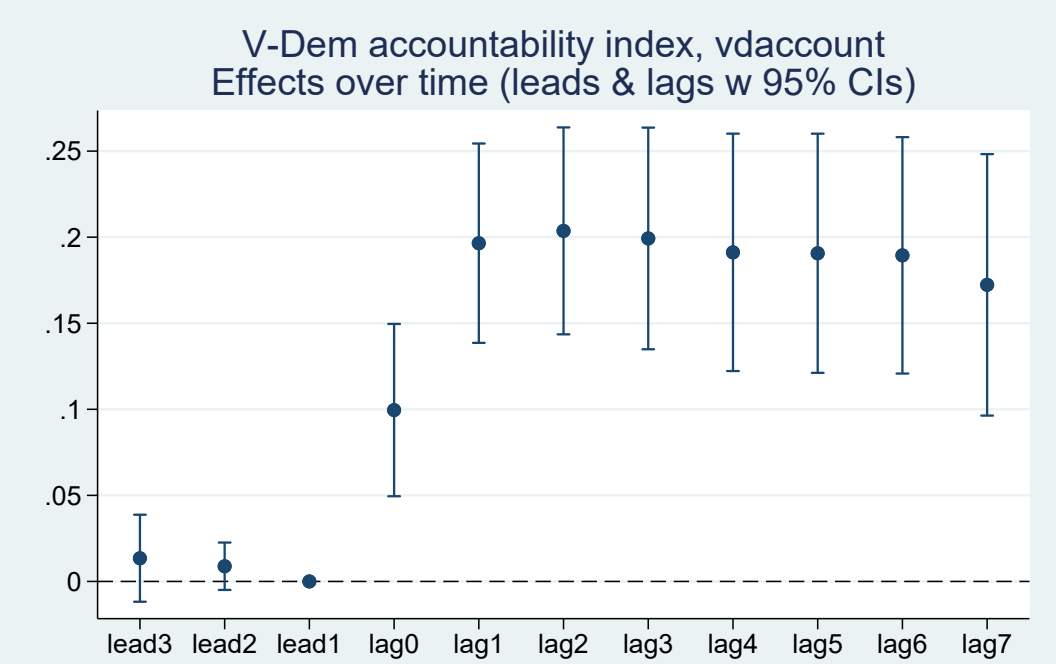
Graph #82

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES



Graph #83

SUCCESSFUL SOCIAL VS. MATCHED CASES



Graph #84

SUCCESSFUL URBAN CIVIC VS. MATCHED CASES