

Homework 9

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1 Stata

1. A yearly plot of the recycling rate for NYC and the controls separately is presented on Figure 1, while the sum of controls is presented on Figure 2.

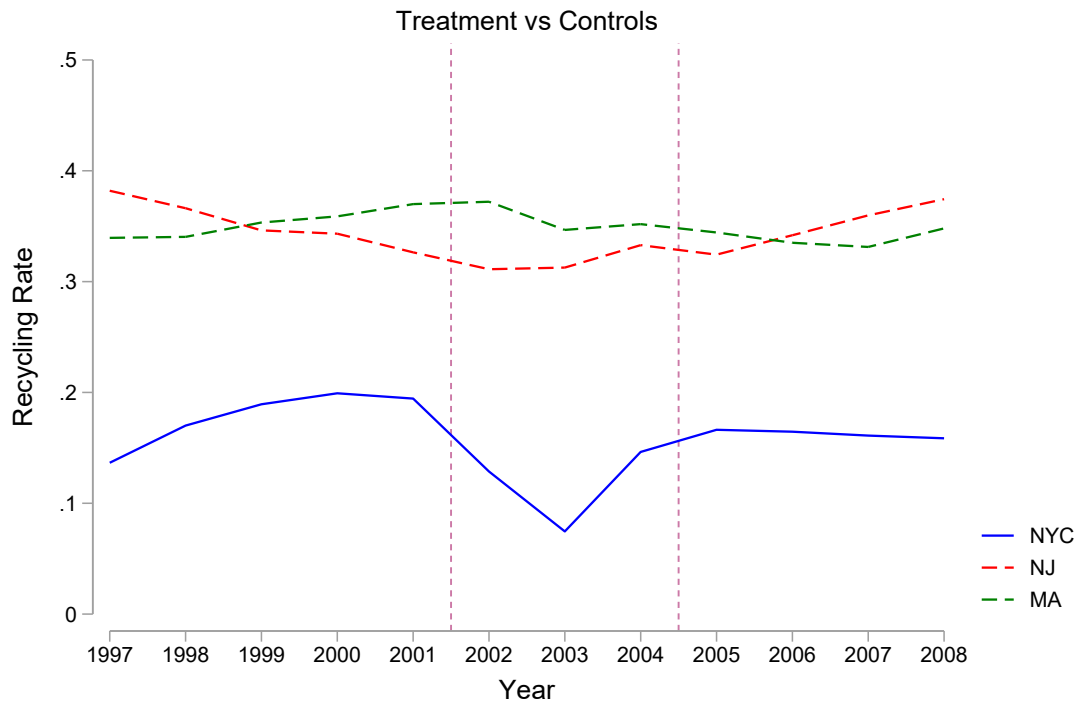


Figure 1: Recycling rate for NYC and the controls

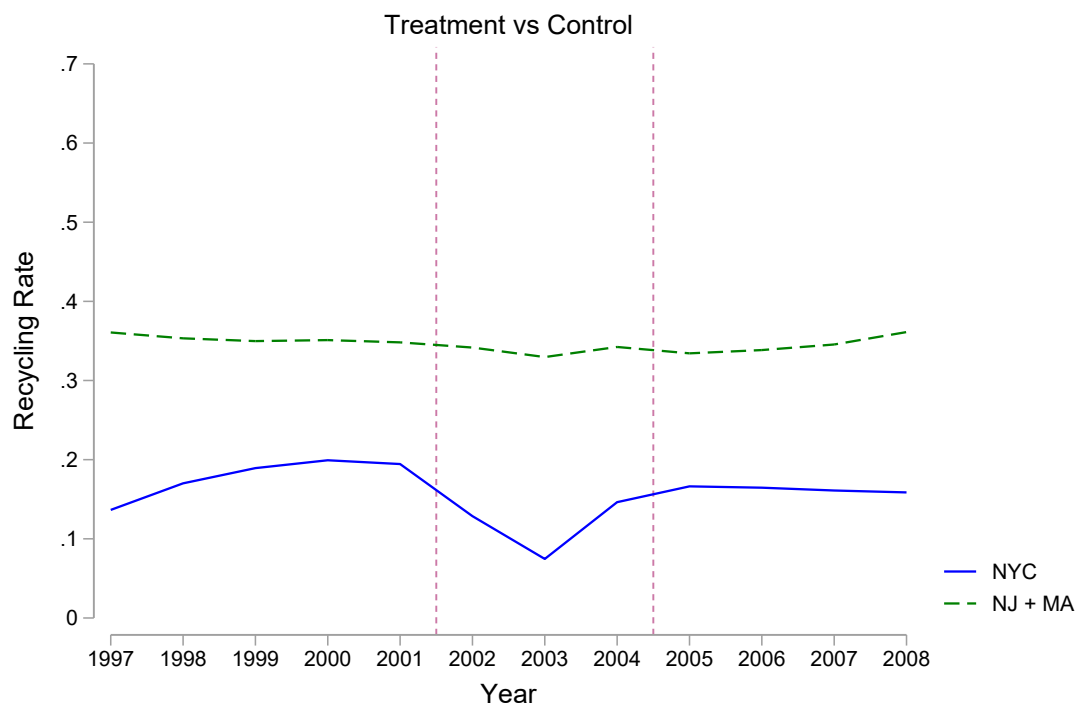


Figure 2: Recycling rate for NYC and the sum of controls

2. The effect of the pause on the recycling rate in NYC using a TWFE regression and the data from 1997-2004 is $-.0619874$ and the clustered standard error is $.0058221$.
3. The estimated average treatment effect and the synthetic DID is presented on the Figure 3

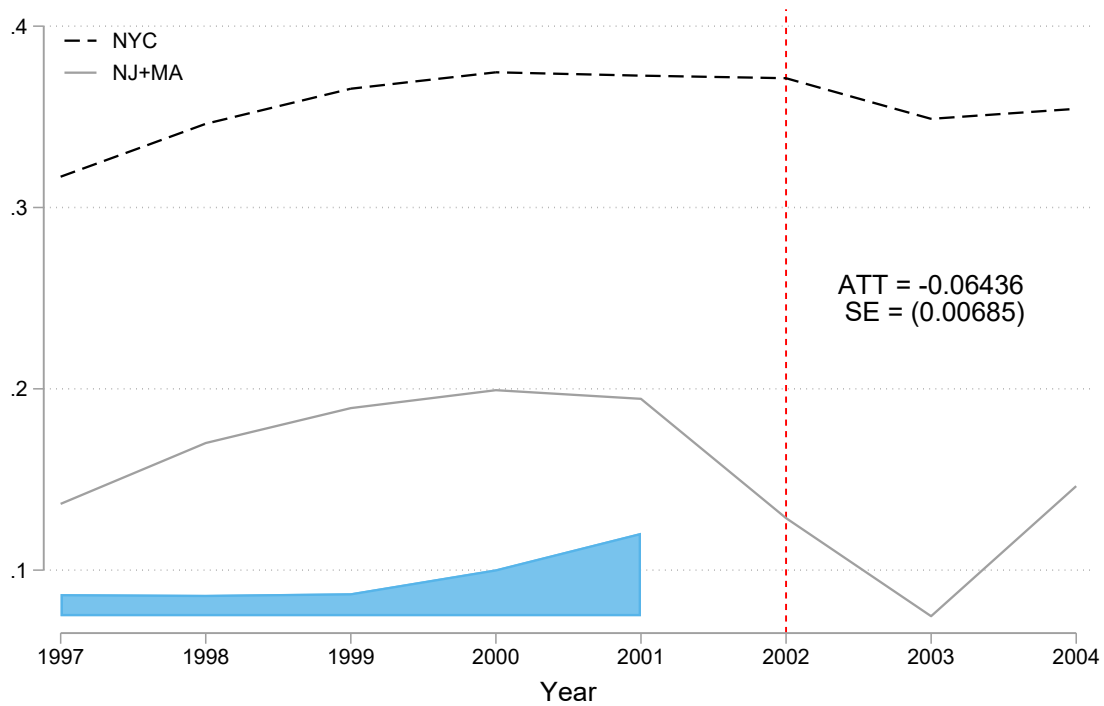


Figure 3: Average treatment effect and the synthetic DI

4. The event study regression results are presented on Figure 4

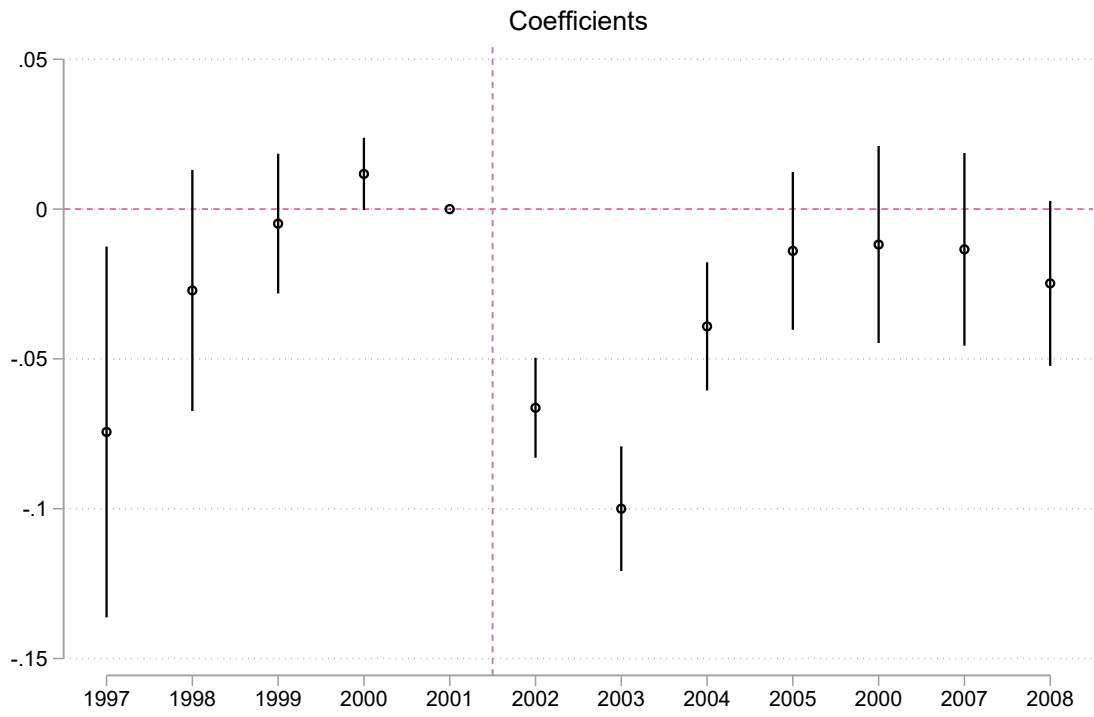


Figure 4: Event Study

5.a The plot of raw outcomes for treated and control groups over time is presented on Figure 5.

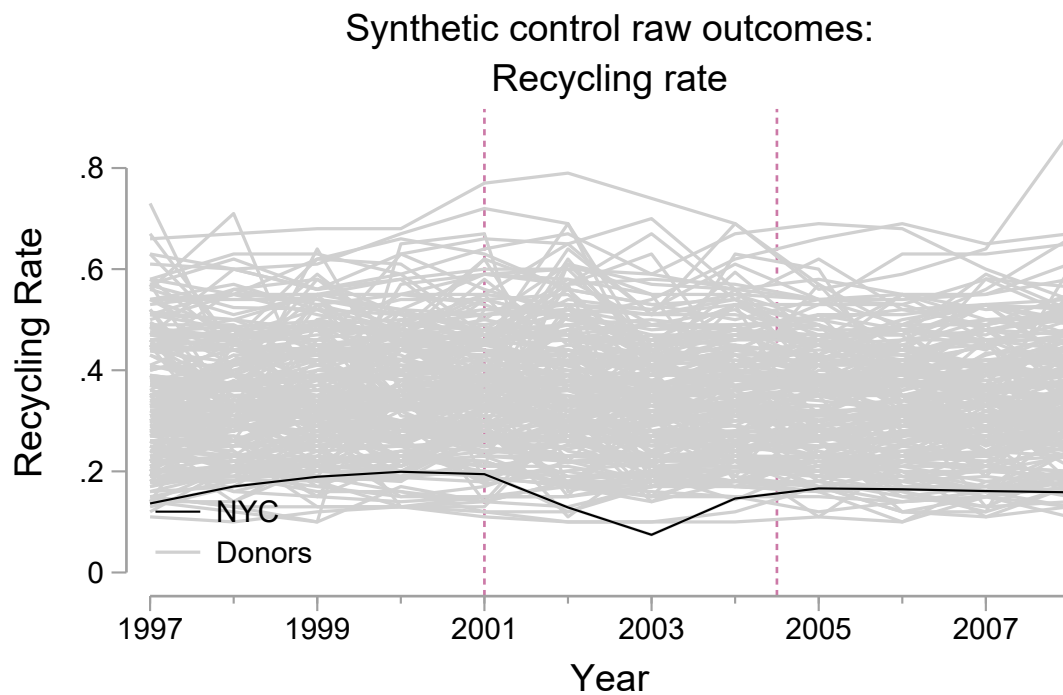


Figure 5: Raw outcomes for treated and control groups

5.b. The plot of raw outcomes for treated group and synthetic control group over time is presented on Figure 6.

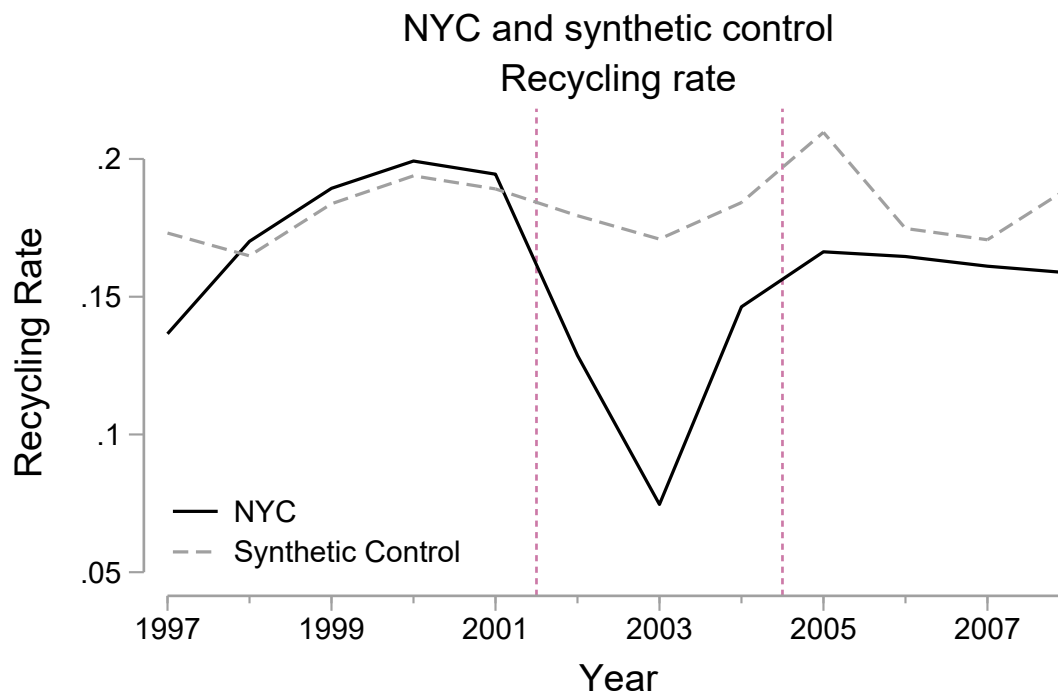


Figure 6: Recycling rate for NYC and the sum of controls

5.c. The plot of estimated synthetic control effects and placebo effects over time is presented on Figure 7.

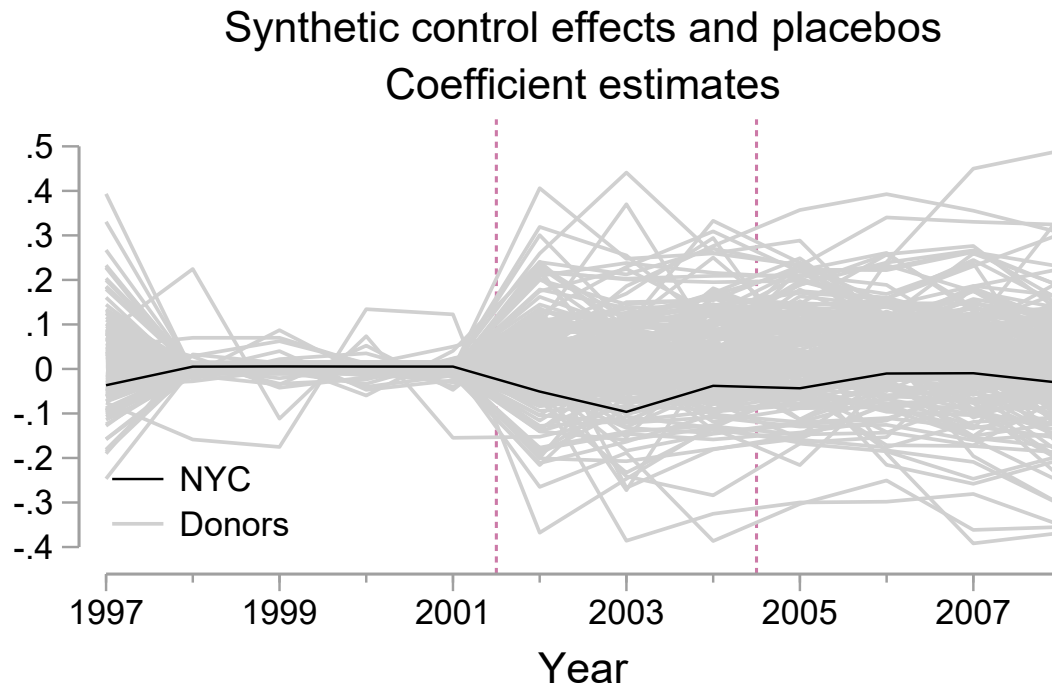


Figure 7: Estimated synthetic control effects and placebo effects

5.d. The plot of final synthetic control estimates over time is presented on Figure 8.

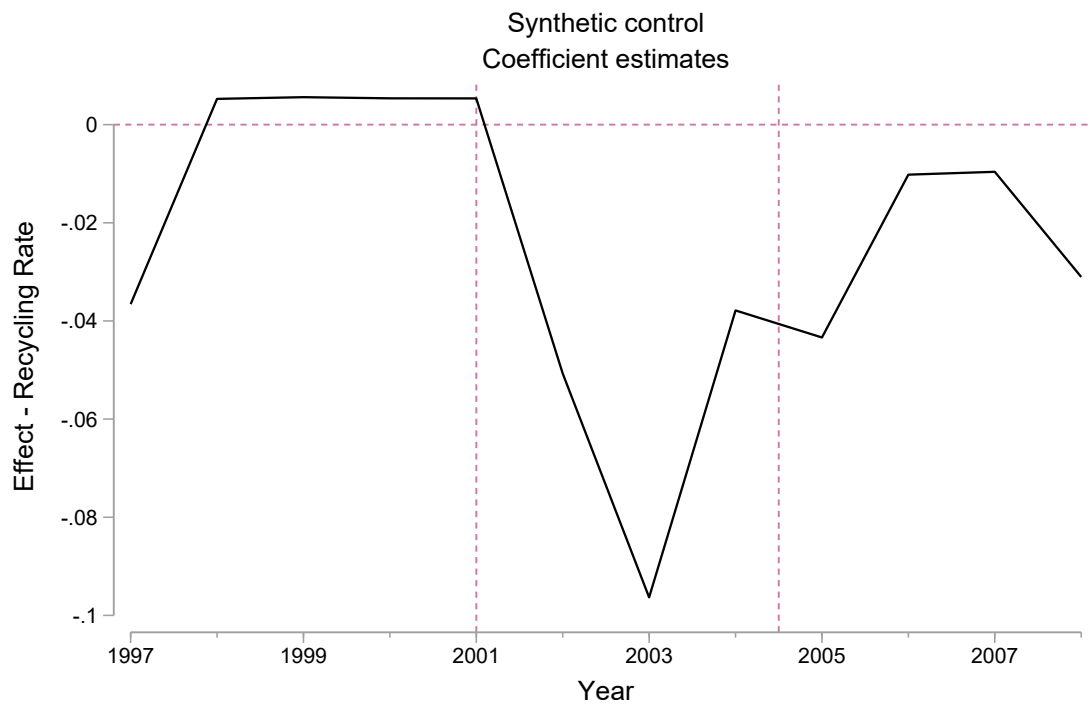


Figure 8: Final synthetic control estimates