Appendix

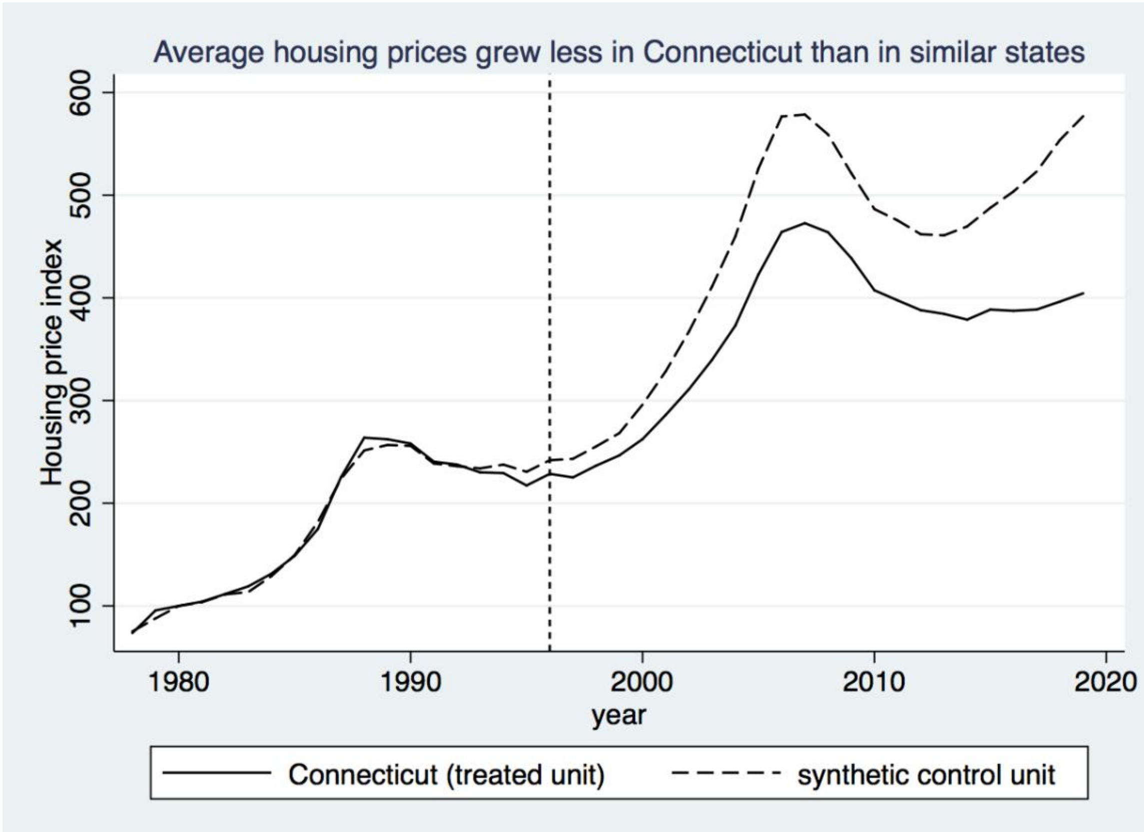
Tax changes occur for many reasons. Some legislated tax changes are passed for philosophical reasons or to reduce an inherited budget deficit. Others are passed because the economy is weak and predicted to fall farther, or because government spending is rising. Because the factors that give rise to tax changes are often correlated with other developments in the economy, disentangling the effects of the tax changes from the effects of these underlying factors is inherently difficult.

In order to deal with these empirical challenges, we employed the “synthetic control method” as in Abadie and Gardeazabal (2003). The empirical strategy compares the evolution of Connecticut during the progressive income tax era with that of a weighted combination of other U.S. states chosen to resemble the characteristics of Connecticut before the tax regime change. This weighted average of states that most resemble Connecticut’s economy before the policy change, referred to as a “synthetic” Connecticut economy, is compared to the actual Connecticut economy after the policy change.

To measure housing appreciation, we used the House Price Index (HPI) published by the Federal Housing Finance Agency (FHFA). The HPI is a broad measure of the movement of single-family house prices. It serves as a timely, accurate indicator of house price trends at various geographic levels. The HPI is a measure designed to capture changes in the value of single-family houses in the U.S. as a whole, in various regions and in smaller areas. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties.

The predictors of our variable of interest are the controls for the share of whites in the civilian population (race), the share of males in the civilian population, the share of the civilian population with a college degree, seven age groups, the log of the civilian population, the share of the civilian population that lives in a metropolitan area, the log of land area (in square miles), and the log of gross domestic product.

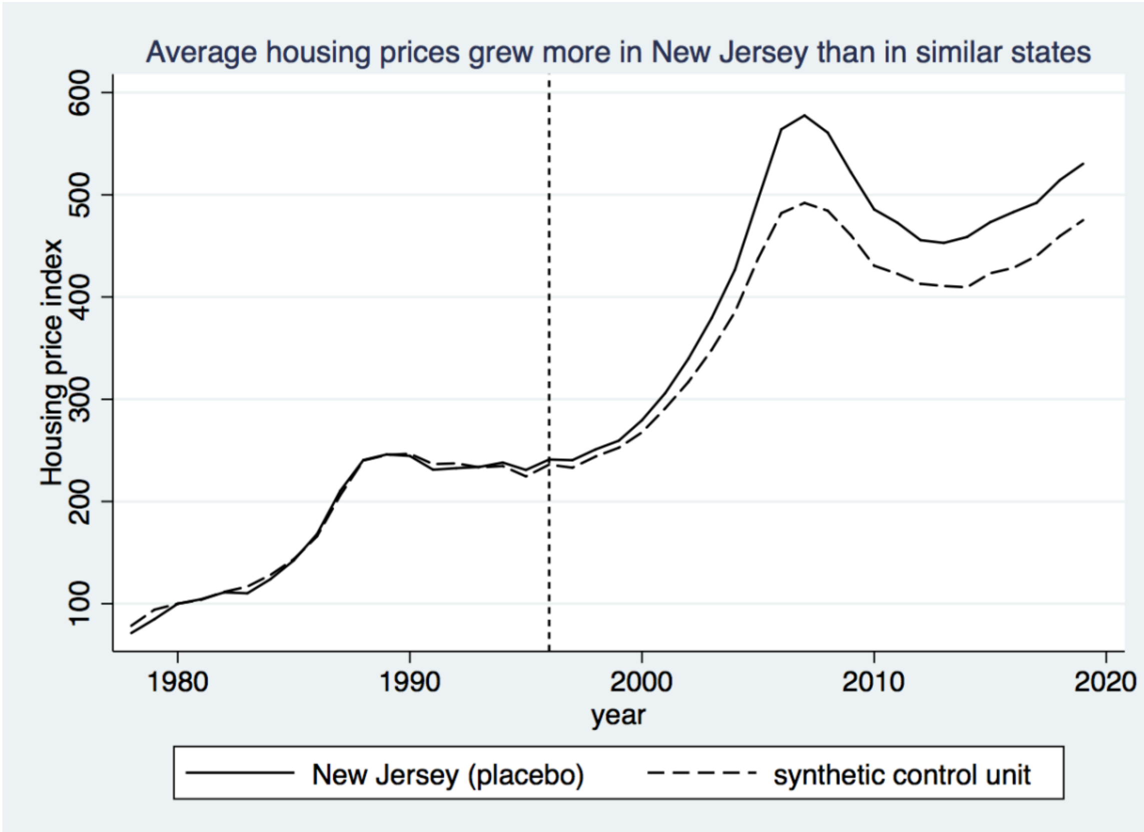
The “synthetic control” states are Massachusetts, New Hampshire, New Jersey and Rhode Island, with weights 0.181, 0.222, 0.451 and 0.146, respectively.



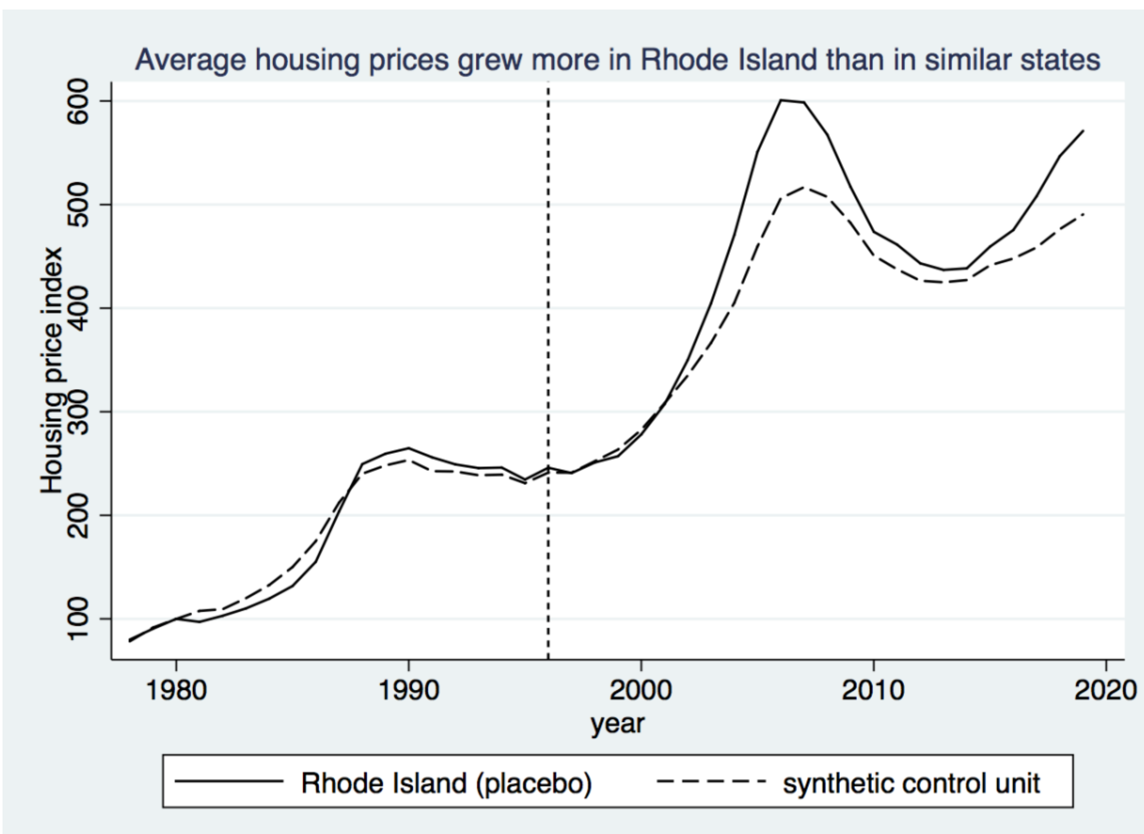
Placebo test: Did the tax regime change really cause the observed gap between Connecticut and other similar states?

To address this question, a placebo study is performed applying the synthetic control method to a state that is identified as very similar to Connecticut, but that did not experience a tax regime change: New Jersey or Rhode Island, for example.

The Connecticut tax hikes did not lower home values in neighbor states. In fact, the results of our experiment show the expected outcome: housing prices grew more in New Jersey than in similar states. The same was true for Rhode Island.



Average housing prices grew more in New Jersey than in similar states
Housing price index
100
200
300
400
500
600
1980
1990
2000
2010
2020
year
New Jersey (placebo)
synthetic control unit



Average housing prices grew more in Rhode Island than in similar states
Housing price index
100
200
300
400
500
600
1980
1990
2000
2010
2020
year
Rhode Island (placebo)
synthetic control unit