Welfare Comparisons for New Technology and New Combination Subsidies

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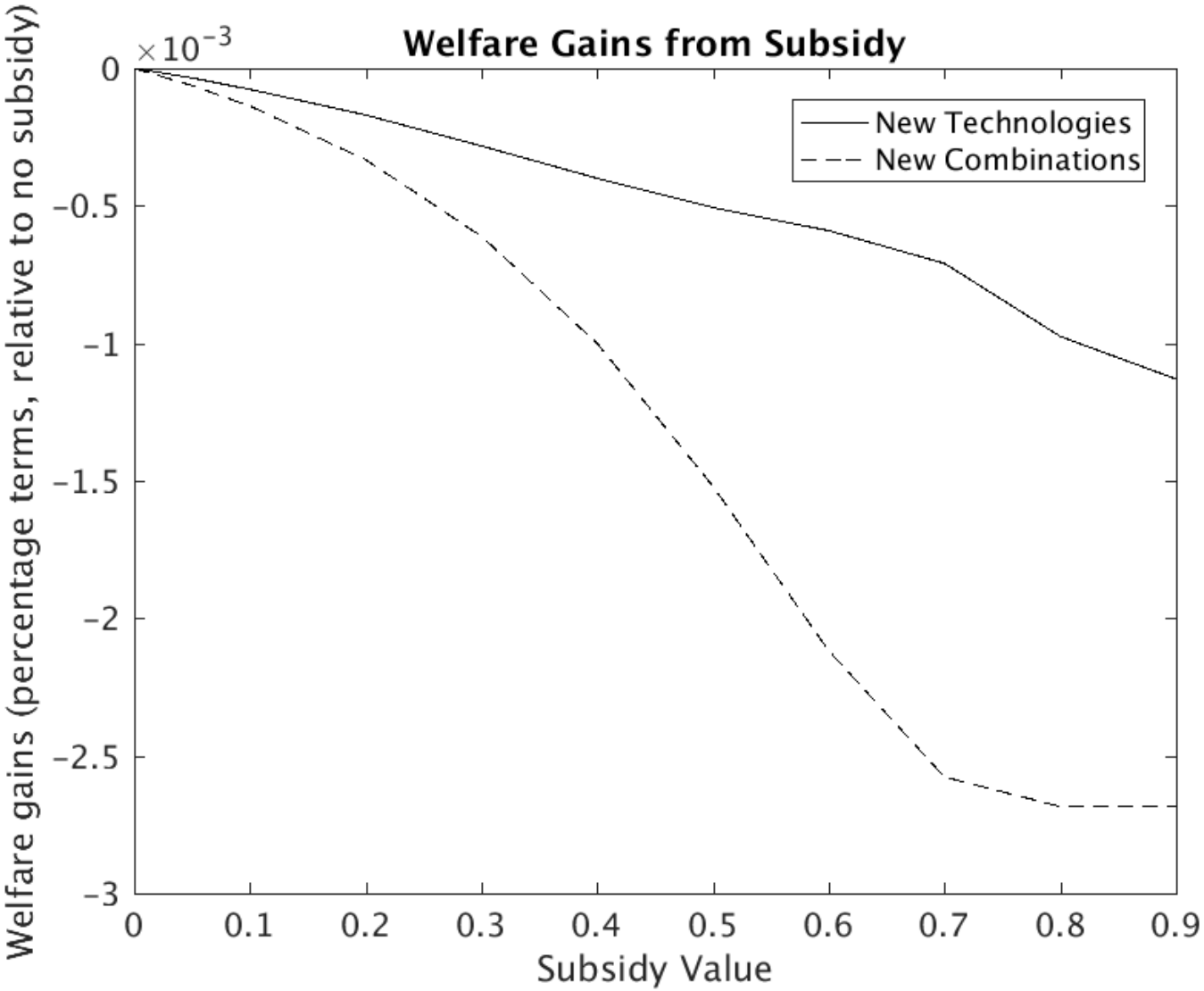
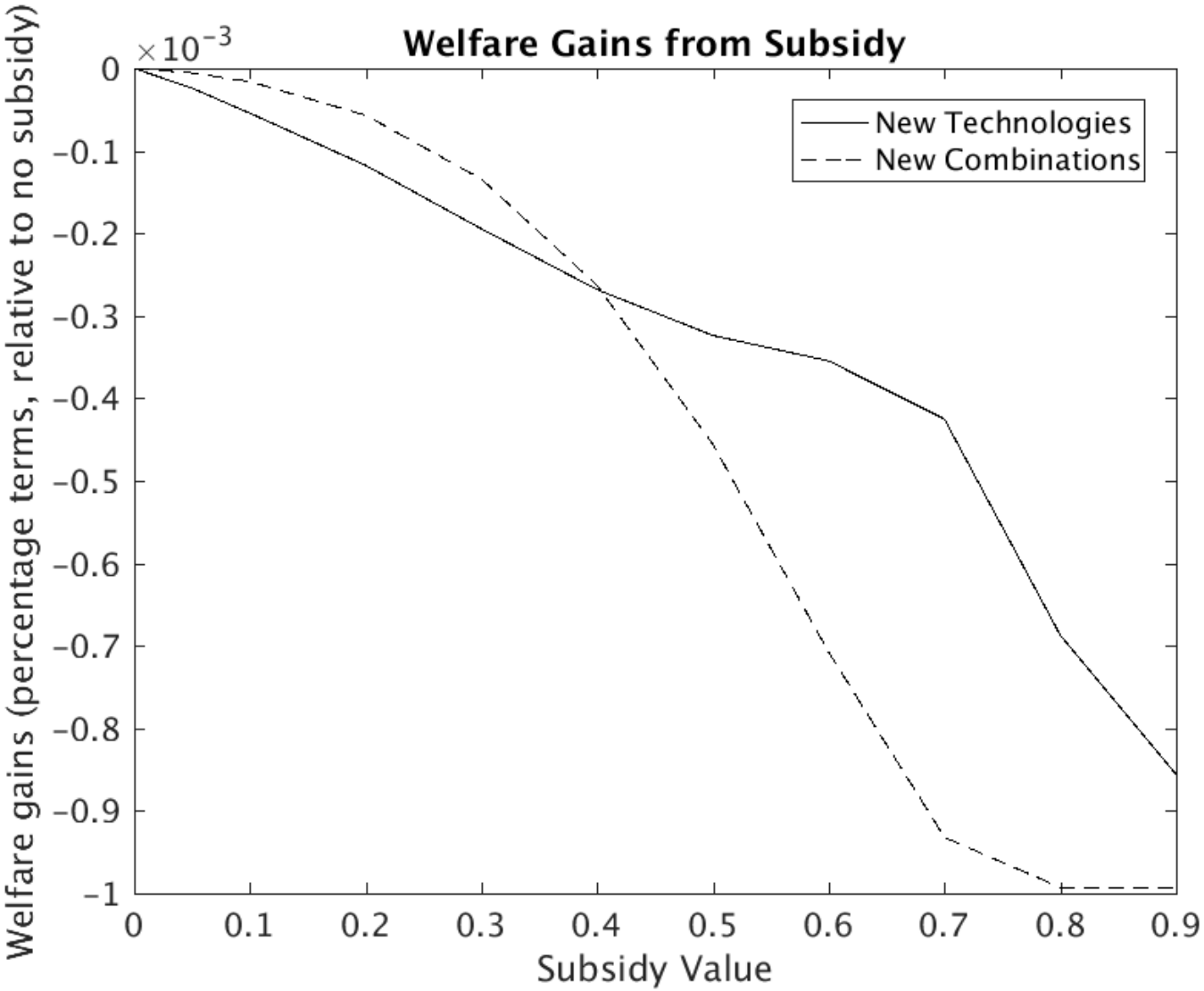
Summary

- The figures show the welfare gains of a new technology subsidy and a new combinations subsidy for different subsidy values.
- Each figure displays the same results but for a different period over which the subsidy is implemented and welfare is calulated – e.g. introduce a subsidy for X years and compute the welfare variation in those X relative to the economy without any subsidy.
- In the second part, I added figures that summarize what is happening in the economy when a subsidy is implemented.
- I use a 50% subsidy as the example, since 50% is the value (of a new combinations subsidy) that maximizes welfare when we look at the 15 year window.

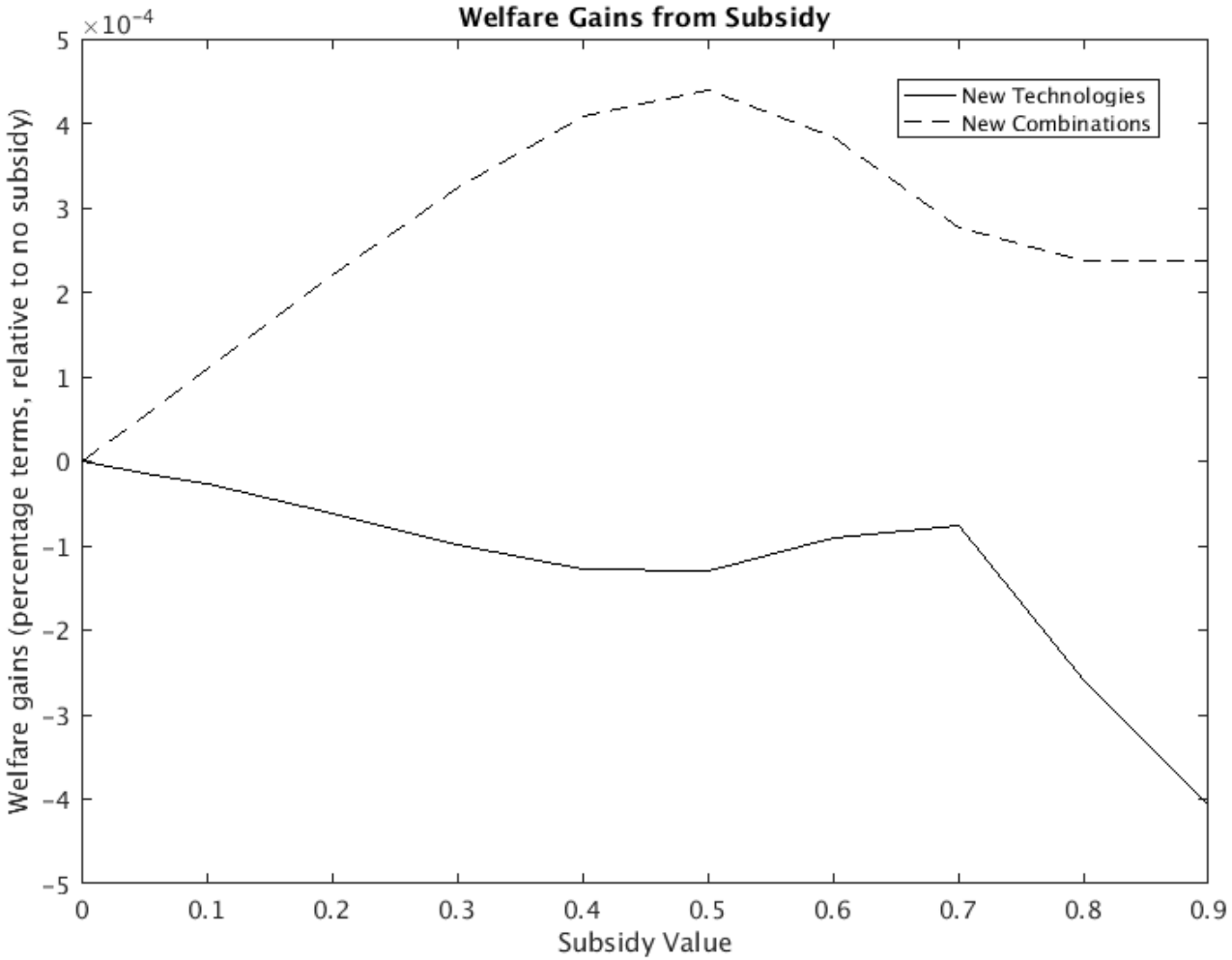
5 years of subsidy



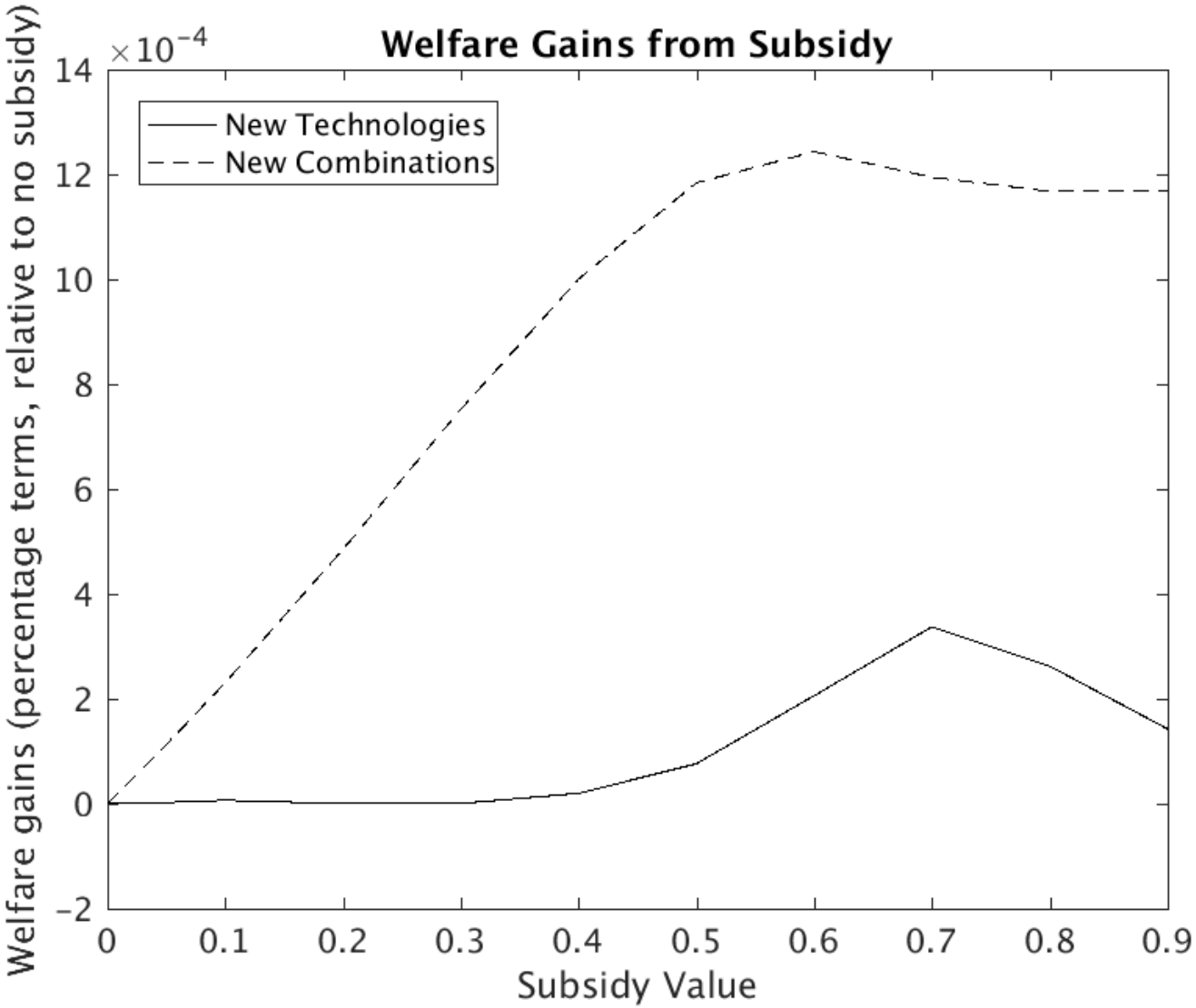
10 years of subsidy



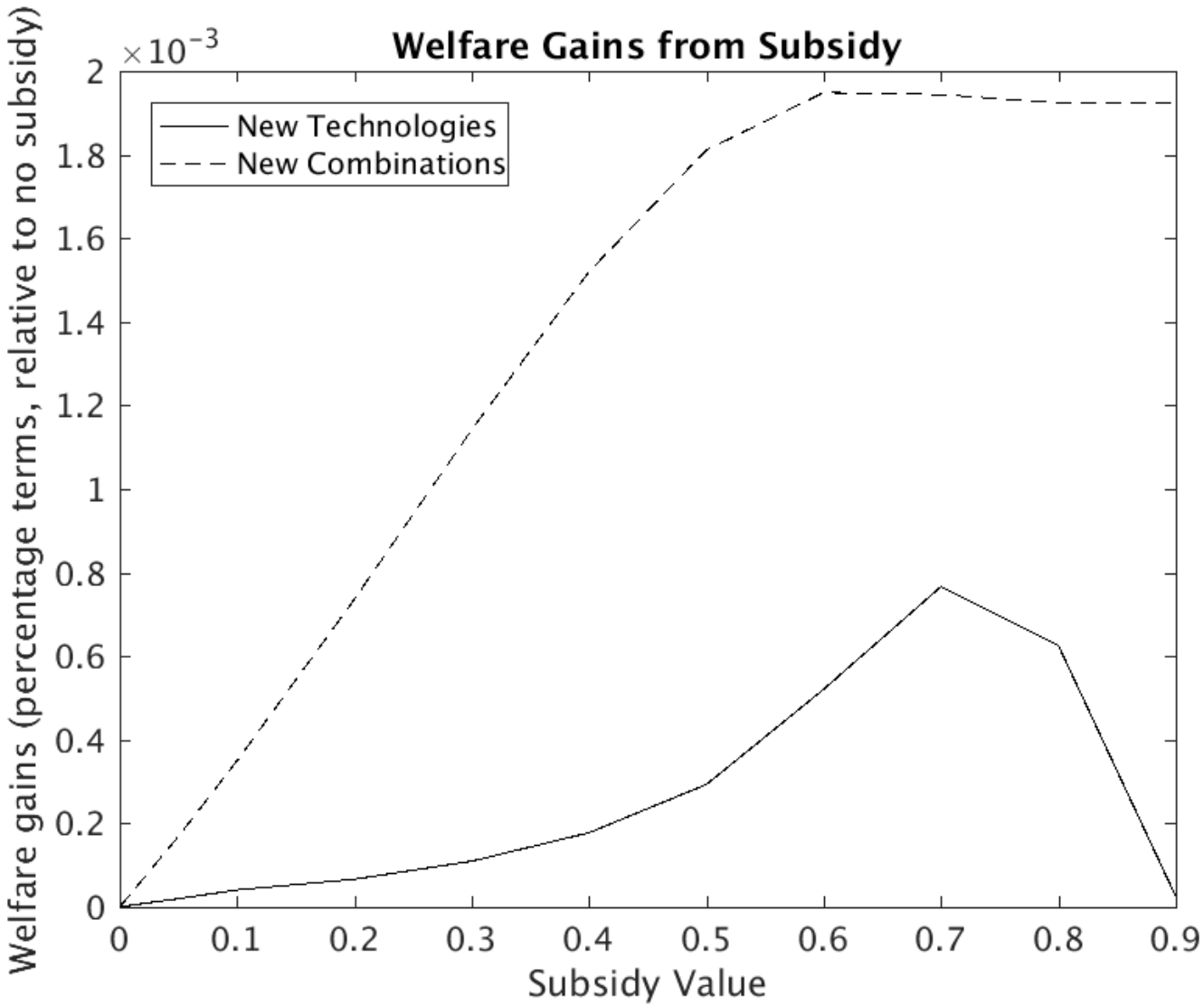
15 years of subsidy



20 years of subsidy

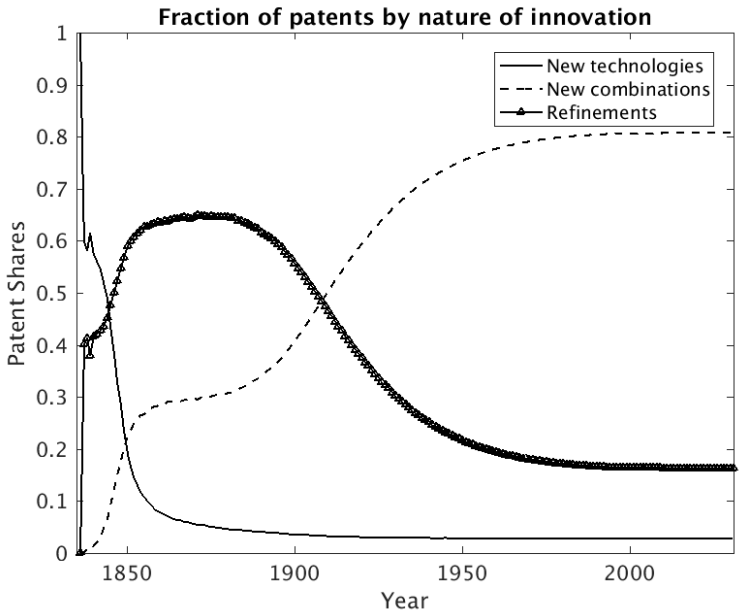


25 years of subsidy

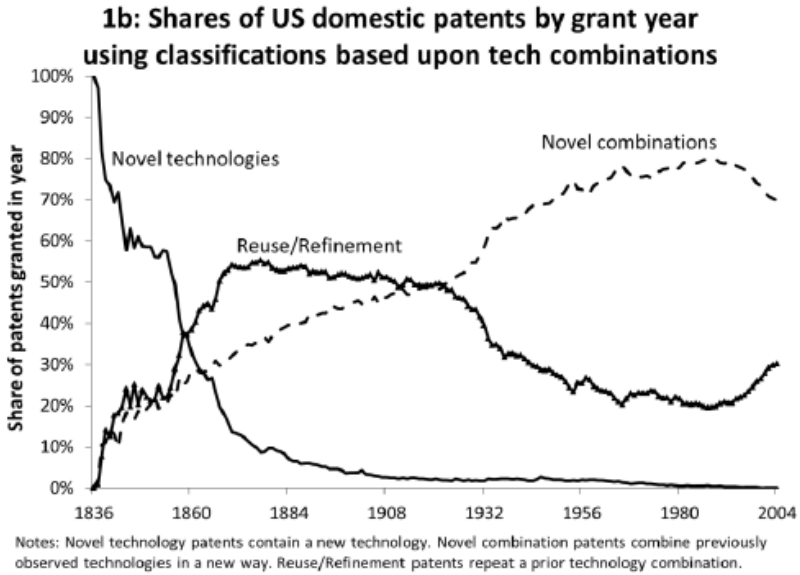


Economy with a 50% Subsidy for 15 years

Patent Shares

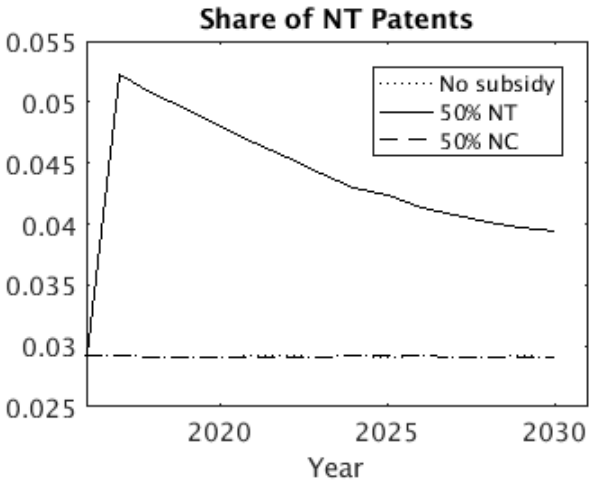


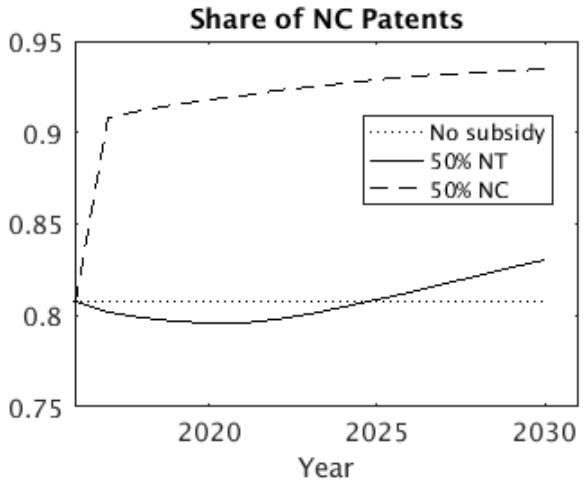
(a) Model.

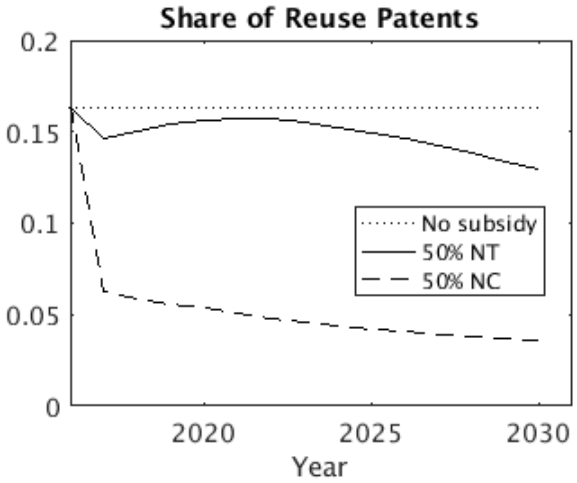


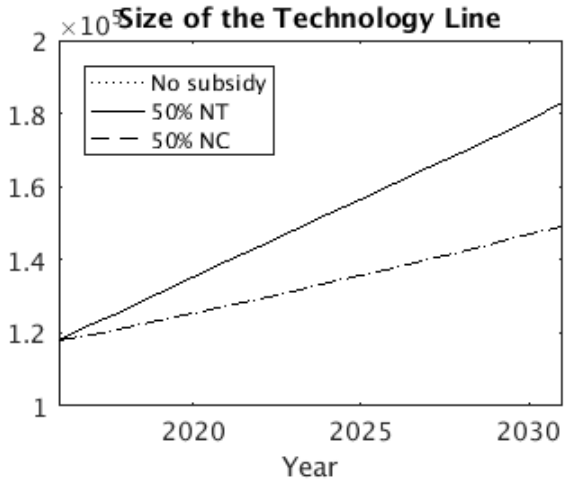
(b) Data.

Change in Share of Patents After Subsidy

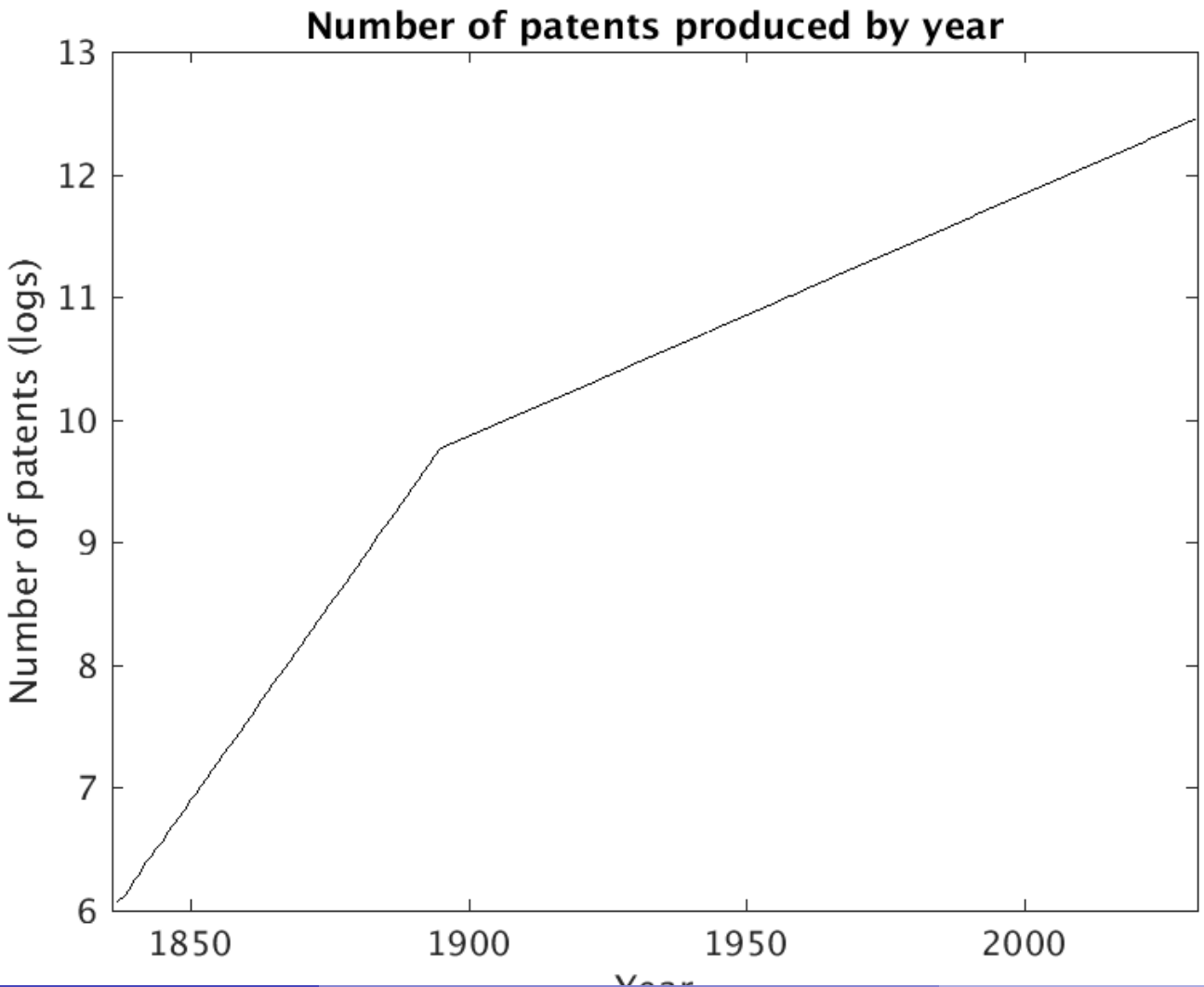




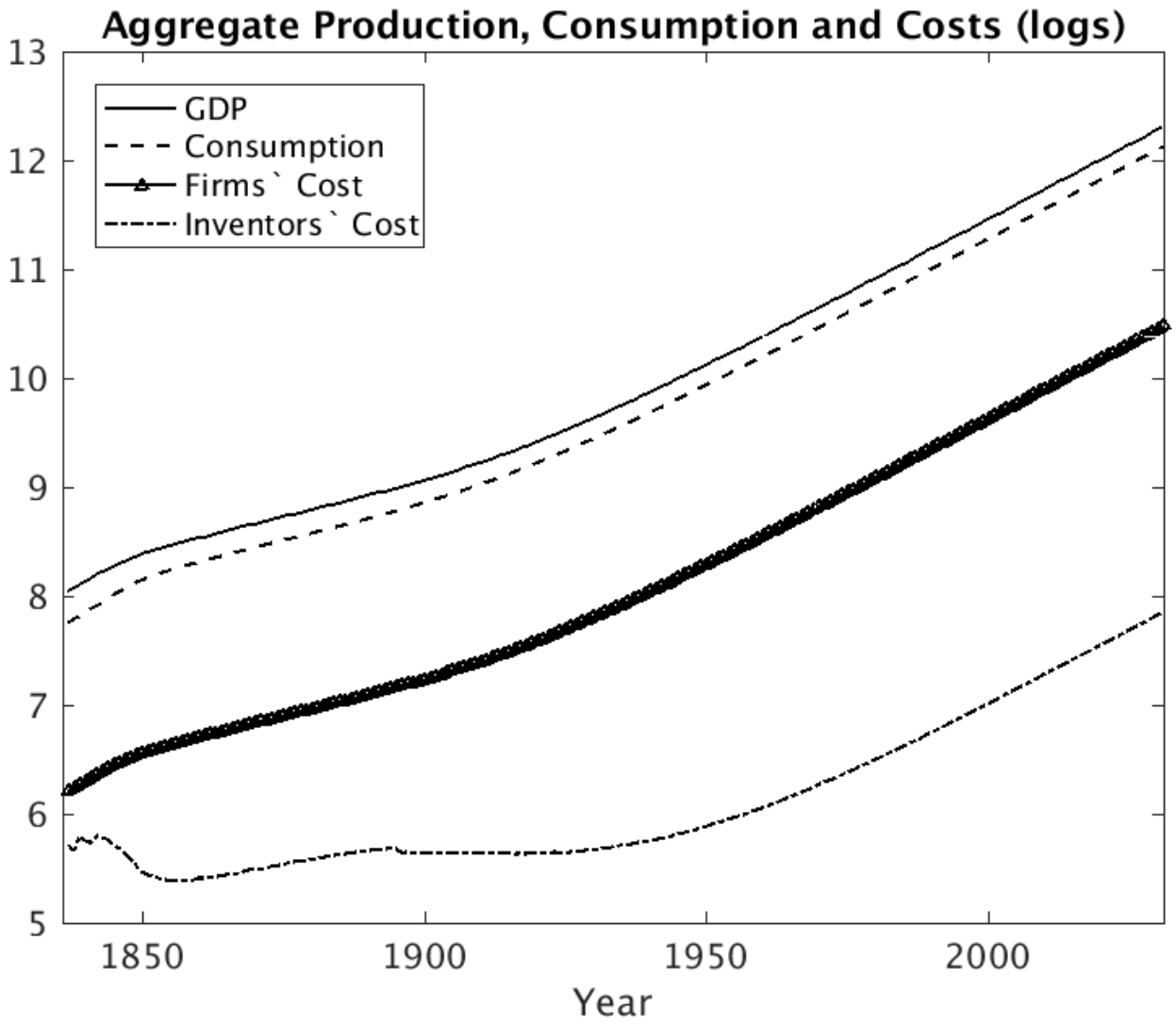




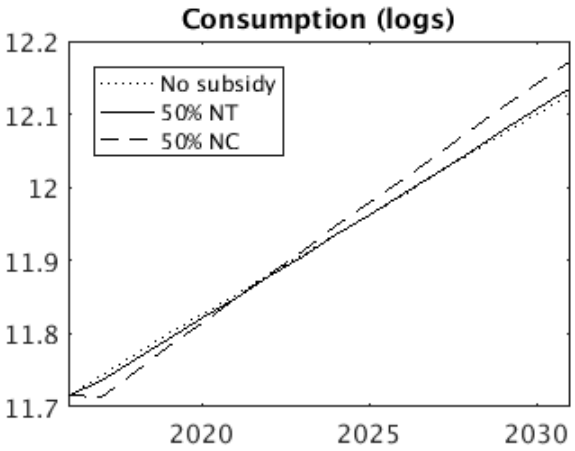
Number of Patents Produced (does not change with subsidy)

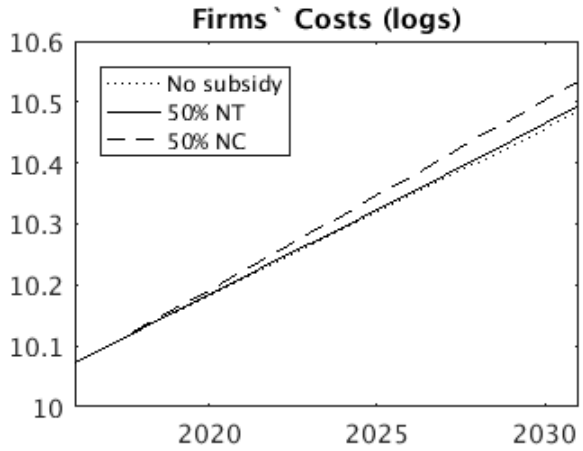


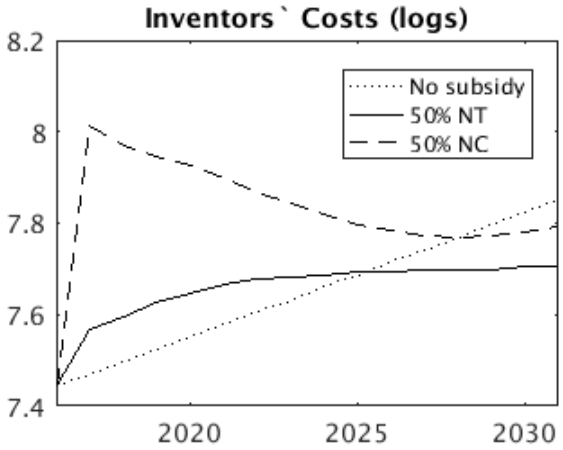
Aggregate Variables

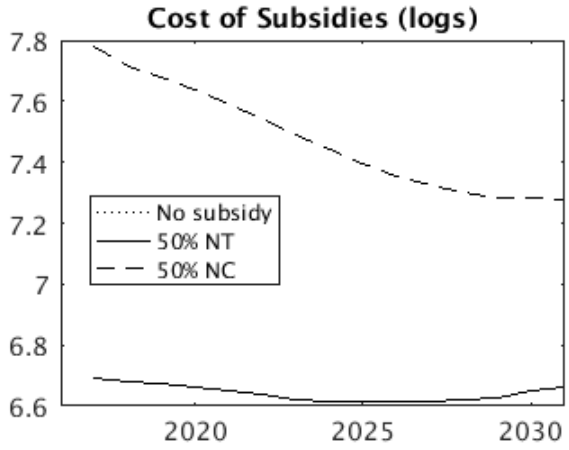


Aggregate Variables After Subsidy

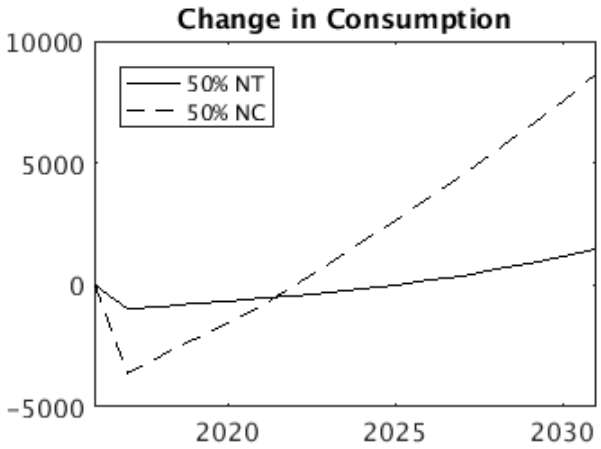


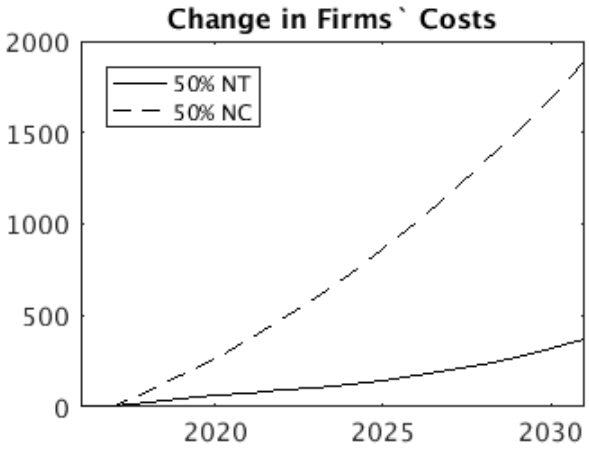


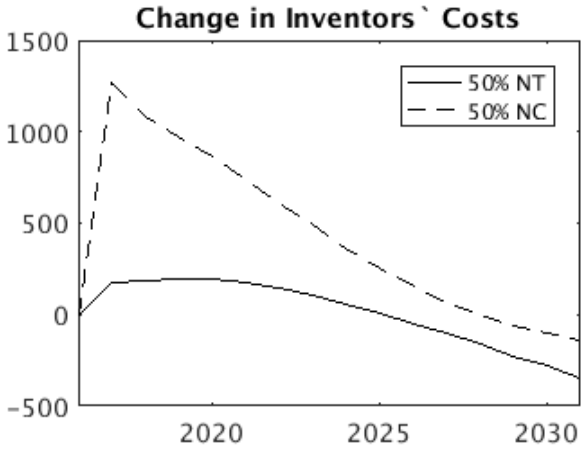


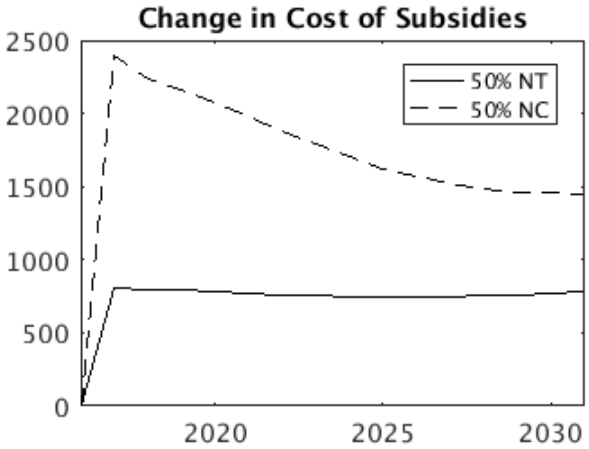


Change in Aggregate Variables After Subsidy

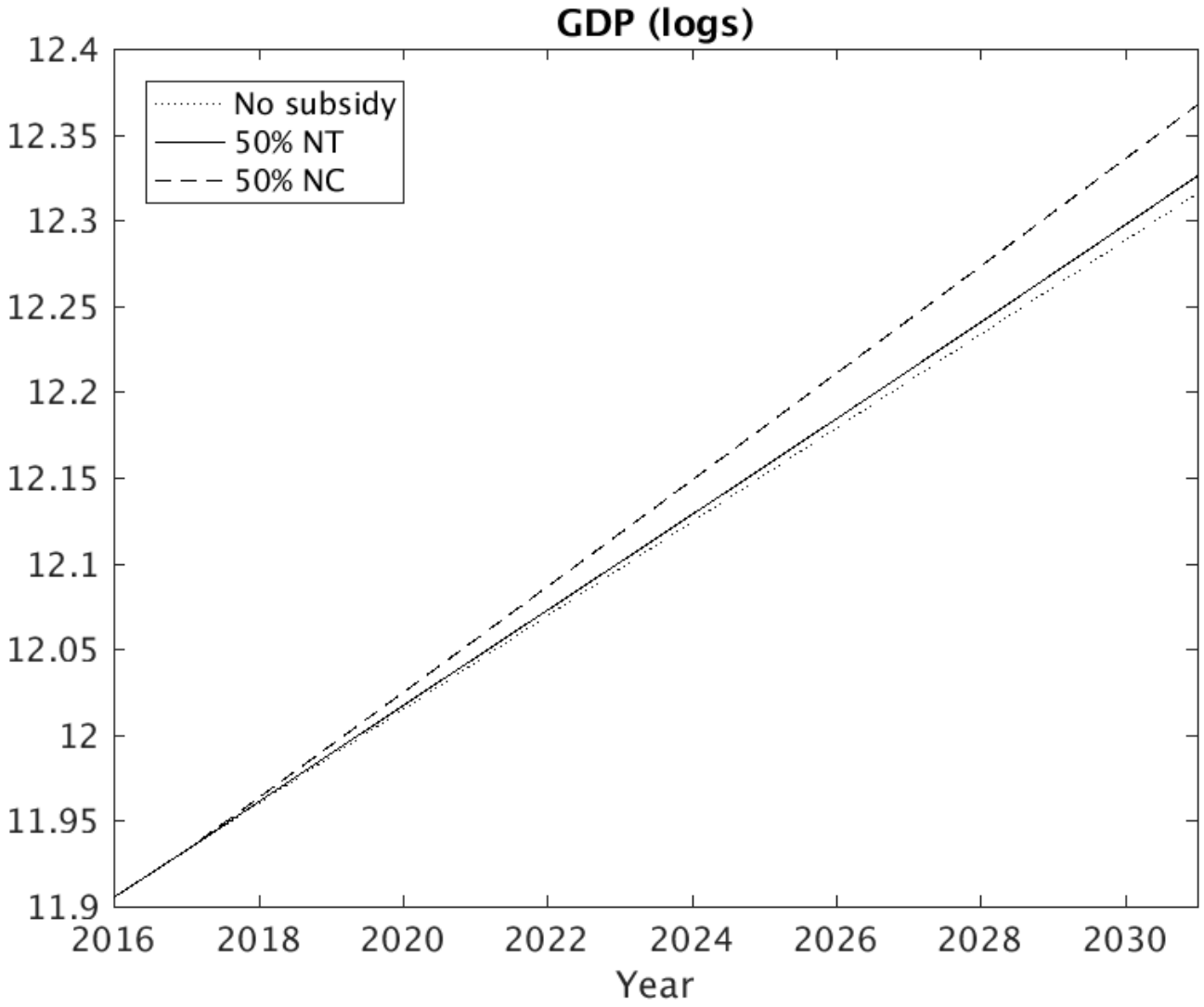




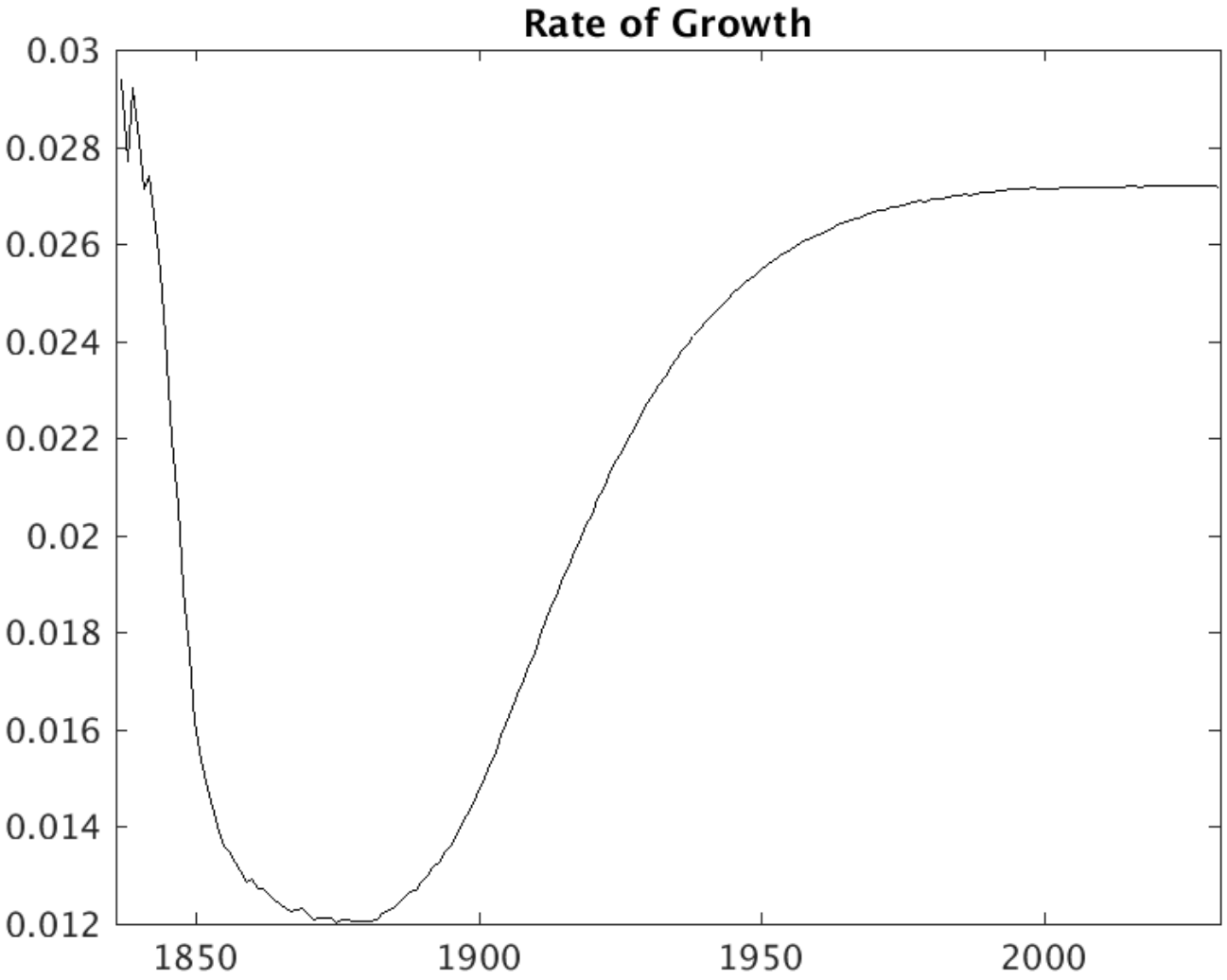




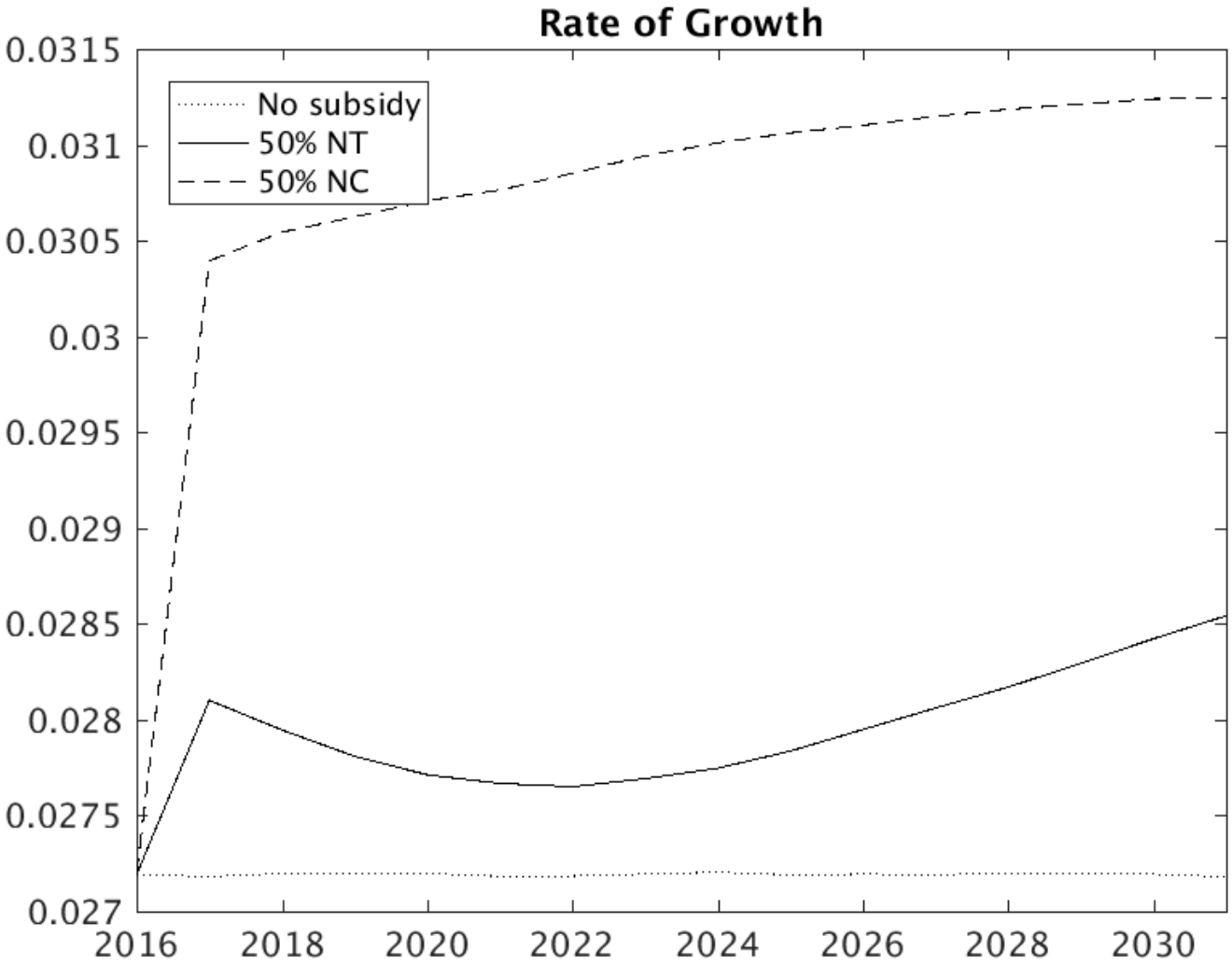
GDP After Subsidy



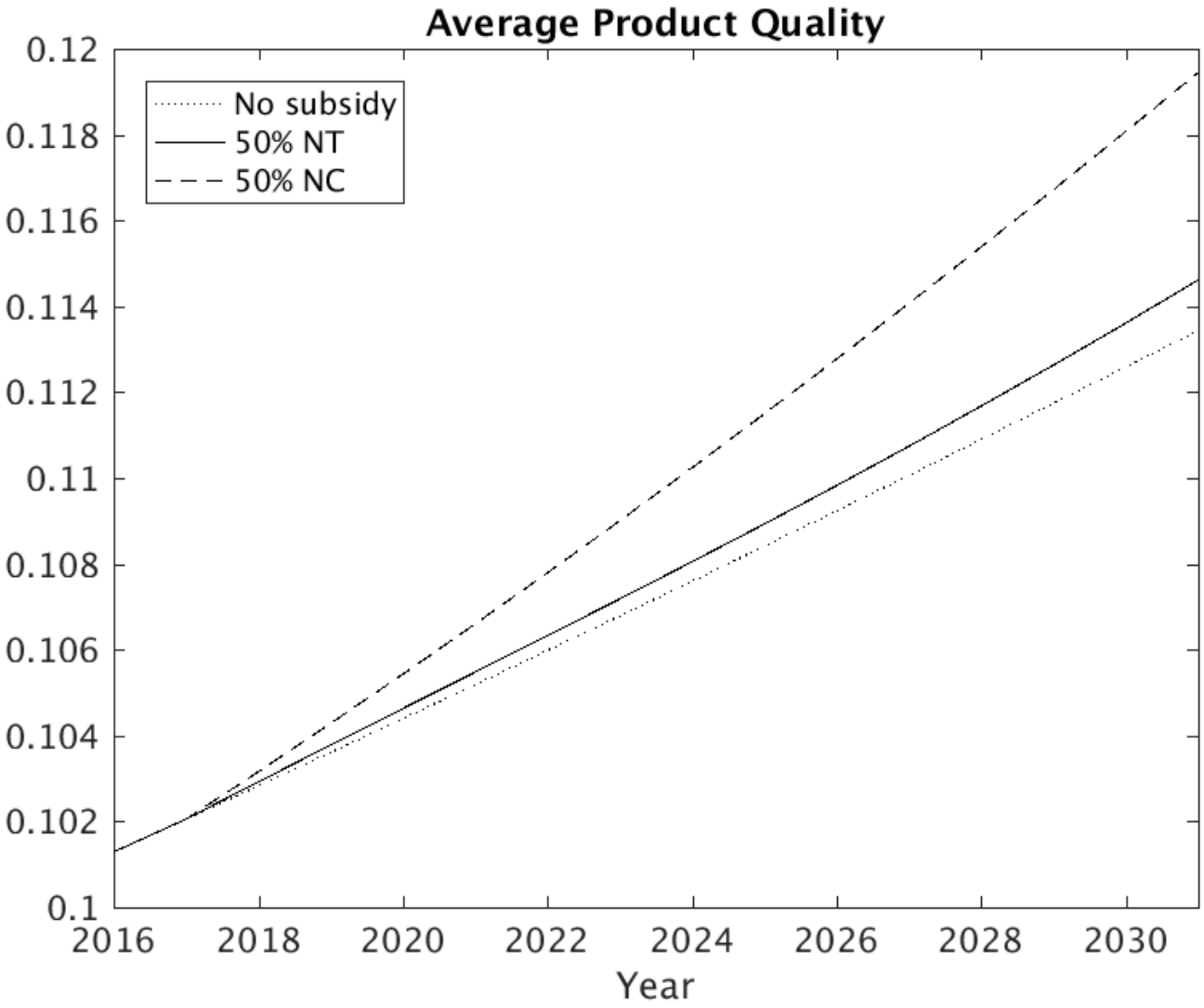
Growth Rate of Economy



Growth Rate After Subsidy



Average Quality of Products in Economy After Subsidy



Welfare Gains After Subsidy

(This is the same figure as before)