Homework 2
Econ 910
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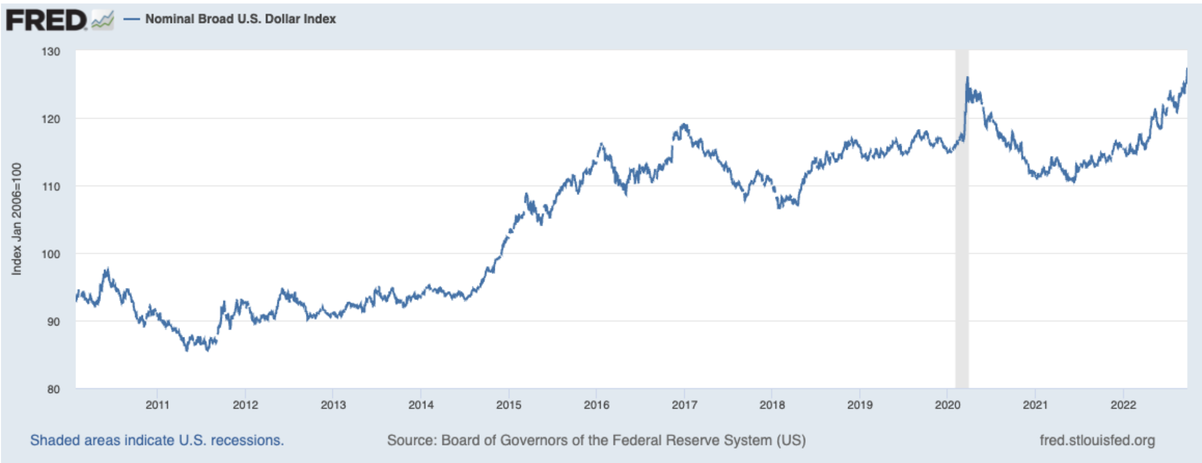
1. Suppose, there is an economy that has had a stable CPI for the last 10 years(1975 to 1985). Suddenly, in 1986 the oil shock caused raw material prices to rise and the overall CPI. The high CPI created by the oil shock lasted about five years and then disappeared and returned to pre-1986 levels. During the high inflation economy experiences recession including high unemployment and low GDP growth. Therefore, the government decided to impose a new law that increases domestic oil production such as tax cuts. These laws not only increased domestic oil production but also lowered overall price level.

In this story, the new law that allowed lower the price level caused the structural change. This economy will experience a lower CPI compared to before the law was imposed. And the main motivation of the law is preventing future oil shocks that could possibly cause a high inflation.

Thus, I can conclude that oil shocks cause temporary change in CPI. Also it motivated the new law which caused permanent structural change.

2. Date: Nominal Broad U.S. Dollar Index (FRED)



This graph can explain both structural break and economic shock. First, the early 2020 economy experienced an increase in Dollar index due to COVID-19. As we know that COVID-19 was a shock to an economy index decreased to normal level (before the COVID). Thus, the index increase in 2020 is not a structural break rather an economic shock.

However, the differences between before 2015 and after 2015 can be identified as structural break. The mean level of index before 2015 is about 95 and after 2015 it stays around 110 for a long period. Since we can observe a clear difference of mean level in two periods of time. I am concluding there was a structural change in 2015