Project Group 49

Financial Effects of the Tax Cuts and Jobs Act of 2017

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Introduction

The implementation of the Tax Cuts and Jobs Act (TCJA) of 2017 changed much of the United States Internal Revenue Code. One of the most controversial changes was the decrease in the corporate income tax rate from 35% to 21%. Combined with other changes to both corporate and individual tax rates, I am interested in the various financial impacts that have been realized in the period surrounding the TCJA.

The objective of this research is to analyze the changes the existing federal tax revenue and aggregate financial data trends both pre- and post-TCJA. I have split my research into two categories of study, which I will be applying similar methods to. The Corporation section focuses on the income tax revenue derived from corporate income tax, while the Individual section is centered on changes to the tax revenue derived from the individual income tax.

I find that corporate tax revenues decrease compared to corporate profits before the enactment of the TCJA. Afterward, the growth rates of both profits and tax revenues plateau. I also find that individual tax revenue growth diminishes prior to the TCJA, and this trend continues post TCJA.

Analysis

I will prepare all of my analyses using data from the FRED St. Louis Federal Reserve Database.

Corporations

In this section I will examine the trends in quarterly tax revenue[1] data, and compare this to reported profits data. I will demonstrate this relationship through two different methods. The first is an analysis of effective[2] corporate tax rates when compared to the statutory rates. The second method is a comparison between the rolling average growth rates of tax revenue against profit.

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[1] I will use the terms tax "expense" and "revenue" interchangeably, depending on the perspective of the data.

[2] The working definition of "effective tax rates" will be total tax expense as a percentage of reported before-tax profit.

Figure 1 gives a comprehensive view of corporate profits and the resulting tax expense (roughly the tax revenue shown at the bottom of the graph) from 2000 to the fourth quarter of 2019. There was a sharp drop in tax revenue in the year prior to the signing of the TCJA[3]. At the start of 2018, there is a leveling off of tax revenue, also reflected in the profit data.

Figure 1

Figure 2 is a different perspective of the data. I calculated the growth rates for profits and revenue. Then, I graphed the one year rolling average for these values. This figure emphasizes the insight from Figure 1; after 2018, both profits and revenue appear to plateau[4], approaching an average growth rate of 0%.

Figure 2 also demonstrates that both growth rates roughly follow the same trend until 2017. At that point, the tax revenue growth rate deviates and decreases relative to profit growth. This is around the time of the TCJA, and suggests profit deferrals to avoid the higher tax rate.

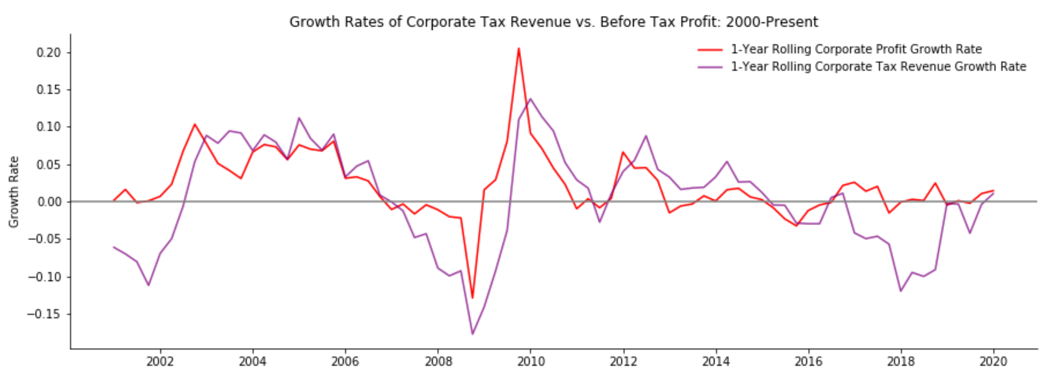

Figure 2

Figure 3 examines the actual tax rate that corporations face on average. The curve suggests that despite the stagnant profit growth, tax expense has been decreasing at a relatively

[3] The TCJA was signed on December 22, 2017. Most of the provisions went into effect on January 1, 2018.
[4] Note that the rolling average pushes the data a year forward, so the data for 2019 are the data at the beginning of 2018.

constant rate from 2000 to the TCJA. After the TCJA, the effective tax rate remains approximately 10.5%.

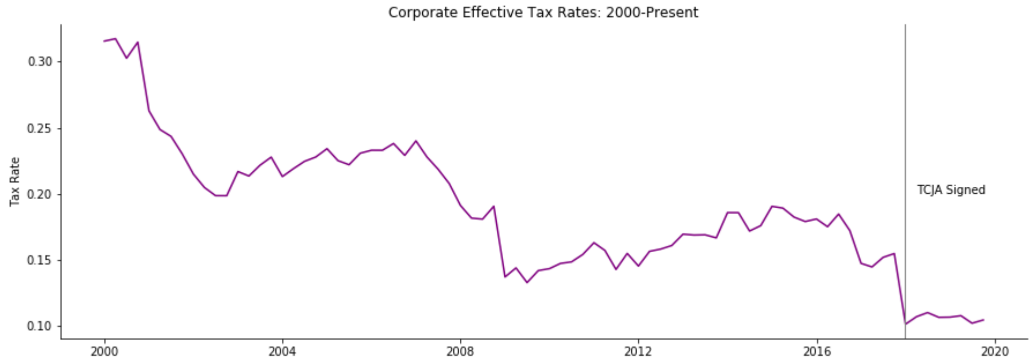

Figure 3

One assumption that I have made here is that the reported tax expense is equivalent to actual taxes paid. The data used for this research is consistent[5] with the corporate profit data, therefore the accuracy of the data is sufficient.

Individuals

In this section I will present a similar analysis to that of the corporate section. I will discuss the trends that can be seen in the tax revenue data. Afterward, I will use the average household income in a growth rate comparison against tax revenue.

In Figure 4 I construct a one year rolling average curve set over the original tax data[6]. There is a consistent upward trend after the financial crisis of 2018. The changes after the TCJA are minimal, although until the point the growth of individual tax revenue has been diminishing. The slowed growth is clear in Figure 5.

Figure 4

[5] Consistency in preparation; both tax expense and profit data are prepared using the same accounting methods.
[6] "Individual" and "Personal" are synonymous.

Figure 5 compares the growth rates of individual tax revenue against household income[7]. The findings from Figure 4 are represented by the slowing growth rate of income tax revenue. The household income growth rate peaks at just over 5% in 2016, and falls in future periods. The key insights are similar to the corporate data, tax revenue volatility has decreased leading up to, and since the TCJA.

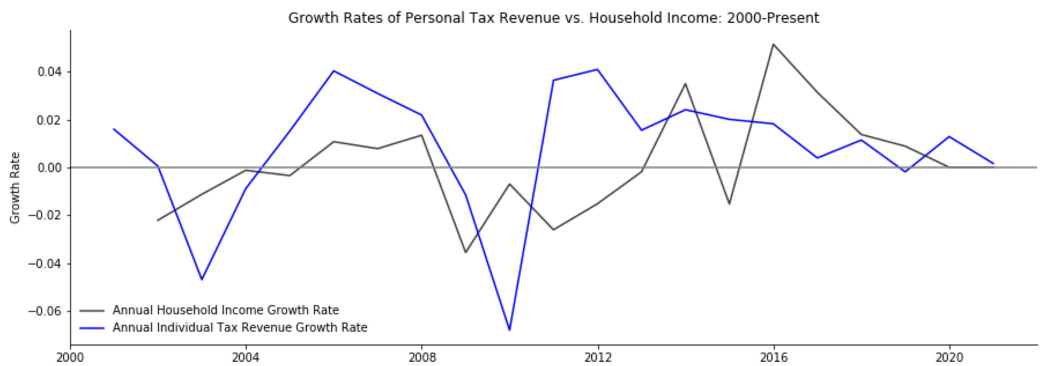

Figure 5

Overall, median household income growth does not look to be a strong indicator of individual tax expense. However, the comparison in Figure 5 is important in understanding relationships in national income.

Conclusion

Through my research, I find that corporate tax revenues decrease compared to corporate profits before the enactment of the TCJA. Afterward, the growth rates of both profits and tax revenues plateau. This suggests that corporate management may have acted in response to the news of tax cuts to defer profits.
Additionally, individual tax revenue growth diminishes prior to the TCJA, and this trend continues post TCJA. Real median household income increases during this same period, though it is not a strong indicator of tax revenue.

My conclusion given the data is that the TCJA has had a greater immediate impact on corporate data than individual data. The amount of data available after the TCJA is minimal, and without a proper legal analysis, I am unable to comment on the underlying causes of my findings. However, I have leveraged the data effectively to fulfill my research objectives.

[7] The data is Real Median Household Income, collected annually.