COMMENTARY

Discussant Comment on “The Inherent Conflict between Progressive Tax Rates and Income Inequality: Lessons from COVID-19 Restrictions”

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ABSTRACT: In this discussion of “The Inherent Conflict Between Progressive Tax Rates and Income Inequality: Lessons from COVID-19 Restrictions” by Nathan C. Goldman, Stephen J. Lusch, and Gil Sadka, I first provide context in which to better understand the article’s findings and contribution. I then discuss endogeneity and the generalizability of the article’s findings. I conclude with suggestions for future research.

Data Availability: Data are available from the public sources cited in the text.

Keywords: COVID-19; progressive tax rates; income inequality; state tax collections; health economics; political economy.

I. INTRODUCTION

The COVID-19 pandemic is a unique situation that provides a rich setting for researchers to study various phenomena, including the impact of the pandemic on the economy. Ex ante, many predicted that the pandemic, through COVID-19 restrictions, unemployment, wage reductions, and an overall economic slowdown, would significantly decrease individual income tax collections at the state and provincial/territorial level (e.g., Dadayan 2020; Young and Desormeaux 2020). However, to their surprise, this was not the case (e.g., Davidson 2021; Tombe 2021).

Goldman, Lusch, and Sadka (2022) (hereinafter referred to as the article) examine this “surprise” using fascinating mobility data from the Federal Reserve Bank of Dallas. The article uses more substantial COVID-19 restrictions and decreased mobility as proxies for greater income inequality and finds that these COVID-19 responses strengthen the relation between progressive individual income tax rate structures and individual income tax collections per capita. Thus, from an individual income tax collection standpoint, U.S. states with more progressive individual income...
tax rate structures that enacted greater COVID-19 restrictions fared better than states with less progressive individual income tax rate structures that enacted fewer COVID-19 restrictions.

In this discussion, I first provide context in which to better understand the article’s findings and contribution. I then discuss endogeneity and the generalizability of the article’s findings. I conclude with suggestions for future research.

II. CONTEXT

The progressive income tax rate structure is a common, well studied tax policy tool that puts a greater proportion of the tax burden on high income earners and promotes the redistribution of wealth through marginal tax rates that increase with income. Aside from societal benefits, governments also benefit—holding all else constant, more progressive individual income tax rate structures lead to greater individual income tax collections per capita. The article begins by demonstrating that this relation holds in the article’s setting of interest: U.S. states with more progressive individual income tax rate structures have greater individual income tax collections per capita than U.S. states with less progressive individual income tax rate structures.

Although the progressive income tax rate structure is generally considered progressive public policy, it does not always breed progressive policy outcomes (Oh 2017; Jackson, Otrok, and Owyang 2022). Due to the nature of the progressive individual income tax rate structure, governments would receive greater individual income tax collections per capita if fewer taxpayers earned more of the income (assuming the individual income tax rate structure and average income per capita do not change). This creates a conflicting incentive whereby the government would benefit from greater income inequality (in terms of greater individual income tax collections, without consideration of redistributive government transfer payments), although a progressive income tax rate structure is typically enacted to help address income inequality.

Both the COVID-19 pandemic and COVID-19 restrictions appear to have impacted income inequality. For instance, hourly employees generally do not have paid sick leave like salaried employees, and hourly jobs are more likely to be lower-income. Thus, if these hourly employees got sick with COVID-19, their income decreased further.

The types of income that can be earned under COVID-19 restrictions also favor more affluent people (Adams-Prassl, Boneva, Golin, and Rauh 2020; Crossley, Fisher, and Low 2021). Jobs that can be done remotely are typically higher-income jobs, resulting in a greater proportion of minimum wage workers having lost their jobs (Couch, Fairlie, and Xu 2020; Dingel and Neiman 2020; Long, Van Dam, Fowers, and Shapiro 2020). High income earners also own more capital and earn more investment income. Thus, they were better positioned to take advantage of the low interest rates offered during the COVID-19 pandemic and the economic recovery that followed (Albert, Caggese, González, and Martin-Sanchez 2023).

The article combines our knowledge of progressive income tax rate structures and income inequality from the public economics and tax law literatures. It applies this knowledge to the COVID-19 pandemic to determine whether these factors contributed to the “surprise” state-level individual income tax collections. Many expected individual income to fall drastically, such that there would be a widespread decrease in individual income tax collections, and this article shows why this was not the case. To the extent that individual income did suffer, it was centered among lower-income earners. Therefore, the progressiveness of individual income tax rate structures differentially affected individual income tax collections. Further, the article draws new insights from this setting: there was a tradeoff between public health and income inequality concerns during the COVID-19 pandemic, and we can examine governments’ approaches to provide policy-relevant recommendations for the future.
III. ENDOGENEITY

The article takes care in identifying the endogeneity of public policy decisions and does not assert causality. However, given the significant endogeneity present in this setting, it is worth a more detailed discussion. Although this endogeneity does not negate the article’s main findings and the tradeoff that governments faced, it impacts our ability to discuss motivation and governments’ decision-making criteria.

The article shows evidence of a relation between the progressiveness of U.S. states’ individual income tax rate structures and the enactment of more substantial COVID-19 restrictions, suggesting that preserving individual income tax collections could motivate greater COVID-19 restrictions (Goldman et al. 2022, 27). However, a simpler conclusion is that increased individual income tax collections are just a byproduct of other policy considerations.

One explanation is that public policy choices are interrelated, and it is likely that both tax policy and public health policy are a function of political view. For example, U.S. states with a Republican Governor and a Republican-controlled legislature are more likely to have less progressive individual income tax rate structures and enact less substantial COVID-19 restrictions (Kerr, Panagopoulos, and van der Linden 2021). Table 1, Panel C of Goldman et al. (2022) shows that Rep is negatively associated with both measures of the progressiveness of the state’s individual income tax rate structure (MAE, −0.18; Prog, −0.16), and Rep is positively associated with the measure of mobility in the state (MI, 0.24) and quite strongly negatively associated with the measure of restrictions in the state (RI, −0.49).

Another potential explanation for this association is a result of urbanization. U.S. states with more urban populations are more likely to be Democratic states, and these densely populated states needed to enact more substantial COVID-19 restrictions for the sake of public health.

IV. GENERALIZABILITY

It is an open question as to whether the article’s findings would hold in other countries. These results may be limited to the U.S. due to the country’s unique features, such as its increasingly polarizing political climate (Hare and Poole 2014). Thus, I provide preliminary evidence of whether these relations hold in Canada—a country with a similar economy but different sociopolitical history.

I begin by collecting Canadians’ mobility data from Facebook’s Movement Range Maps. These data are compiled from individuals with the Facebook mobile app with location history turned on and are aggregated at the census division level. Detailed information about the data can be found in Maas et al. (2020) and Chan (2020). Consistent with the article, I create an average mobility index relative to February’s mobility levels for each province/territory. I split the sample at the median to create low- and high-mobility variables (LowMI and HighMI).

I obtain provincial/territorial individual income tax collections per capita from Finances of the Nation and average individual income per province/territory from Statistics Canada. I note that I could only obtain individual income tax collections per capita on an annual basis instead of quarterly. Consistent with the article, I compute the multiple of average earnings at which the top individual income tax rate applies (MAE) for each province/territory. I split the sample at the median to create low and high tax progressiveness variables (LowTP and HighTP). 1

I also calculate the difference between the top individual income tax rate and the marginal rate on $25,000 of taxable income (Prog) and find that results are consistent when using Prog as the measure of the progressiveness of provincial/territorial individual income tax rate structures.
Summary statistics in Table 1 are mainly consistent with the article. Given that my measure of TRPerCap is annual, measured in Canadian dollars, and Canada’s provincial/territorial individual income tax rates are generally higher than the U.S., TRPerCap is reasonably larger than in the article. On average, Canadian provinces/territories collected less individual income tax per capita during 2020 compared to 2019 (mean ChangeTRPerCap = -0.0347) and experienced decreased mobility from March to December 2020 relative to February 2020 (mean MI = -0.0193). Canadian provincial/territorial individual income tax rate structures are also, on average, more progressive than U.S. state individual income tax rate structures (mean MAE in Canada = 3.6900, mean MAE in the article = 2.8455).

In Figure 1, I follow the article and plot the percentage change in individual income tax collections per capita by year and group. I sort the Canadian provinces/territories into four groups based

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>25th Pctl.</th>
<th>Median</th>
<th>75th Pctl.</th>
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<td>-0.0748</td>
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<td>0.0060</td>
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<tr>
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<td>0.0051</td>
<td>-0.0417</td>
<td>-0.0315</td>
<td>0.0056</td>
</tr>
<tr>
<td>MAE</td>
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<td>1.9766</td>
<td>2.4185</td>
<td>3.4247</td>
<td>4.4266</td>
</tr>
</tbody>
</table>

Table 1 provides the summary statistics for the sample. All variable definitions follow Goldman et al. (2022) except where otherwise noted.

Figure 1 plots the percentage change in individual income tax collections per capita by year and by group. Provinces/territories are put into four groups based on a median split of mobility (LowMI and HighMI) and a median split of the progressiveness of the individual income tax rate structure (LowTP and HighTP). The progressiveness of the individual income tax rate structure is measured using MAE.
on a median split of mobility (LowMI and HighMI) and a median split of the progressiveness of the individual income tax rate structure (LowTP and HighTP). Figure 1 shows that the only group of provinces/territories to increase their change in individual income tax collections per capita from 2019 to 2020 is the provinces/territories with a relatively more progressive individual income tax rate structure and relatively low mobility.

I caution that limited inferences can be drawn from univariate evidence. I further note that Canada only has 13 provinces/territories, leading to a very small sample size. However, the association I document is consistent with the article’s findings, suggesting that these findings are not limited to the U.S. setting.

V. CONCLUSION AND FUTURE RESEARCH

The article demonstrates the inherent conflict between progressive individual income tax rate structures and income inequality during the COVID-19 pandemic in the U.S. Further, the article highlights the difficult tradeoff governments faced during the COVID-19 pandemic: balancing public health and income inequality concerns. Regardless of whether increased individual income tax collections motivated more substantial COVID-19 restrictions, the importance of this tradeoff remains.

I provide preliminary evidence that the article’s findings are not limited to the U.S. I leave it to future research to study whether these relations hold in other countries or regions, such as Europe. The literature and policymakers would also greatly benefit from a holistic analysis of the consequences of this tradeoff. What is the optimal balance of public health concerns and income inequality concerns? Were redistributive government transfer payments sufficient to address the resulting income inequality from the COVID-19 pandemic and COVID-19 restrictions? Given the significance of these questions for our society, any work toward answering these questions, including the work of the article, is worthy.

REFERENCES


