Response to Reviewer 2

“Democracy and Taxation’’ by Balamatsias Pavlos (Discussion Paper No. 2017-100 November 22, 2017)

I would like to thank the reviewer for his careful reading comments and suggestions. I understand that the reviewer’s main concerns are about the theoretical elaboration, empirical designs and about the structure and writing of the paper. Here I try to respond to these issues and explain the changes I have made to the paper.

1. I have limited the length of the literature review section to only two pages. I only kept the paragraph about how taxation can bring democratization and further analyzed it alongside the effect of the political system in tax policies. I keep the literature review section mostly focused on these two subjects because they are the basis of the hypothesis about a two-way causal relationship between taxation and democracy. I also compressed the analysis about the effect of other variables in taxation and omitted a number of papers, mostly the ones about investment and taxation. However I kept the papers of Moutos (2001) and Adam(2009), because they help us understand the reasons for the use of trade taxes in poor democracies.

2. In section 3 “Data and methodology” I analyze other methods in defining political regimes and explain how my methodology is different. The following excerpt is taken from the revised manuscript:

Since we are interested in examining the impact that the political regime has on taxation we first need to clarify exactly how we measure this variable. Previous research (Helliwell (1994), Rodrik (1998) Persson and Tabellini (2006), Aidt and Jensen (2009), Mutascu(2011)) treats a country’s political system as an exogenous variable which is only affected by civil and political liberties as well as economic conditions (such as wealth and inequality) within a single country and unaffected by the conditions in other countries. Among the few authors who have examined how political regimes in other countries can affect a country’s own political system, Persson and Tabellini (2009) use neighbours’ inverse distance-weighted democracy indexes to control for transitions in and out of democracy.

The empirical strategy that we use is different from those used by other authors because of the assumptions we make about democracy. More specifically, we use the theory of Huntington (1991) and the methodology of Acemoglu, Naidu, Restpero and Robinson (2014) about regional waves of democratization. According to this theory, democratization or reversals to autocracy occur in regional waves because countries in the same region have common historical backgrounds, close economic, political and cultural ties, and face similar problems. Therefore the diffusion of demand for or discontent with a political system is much easier to happen in countries in the same geographical area. These regional patterns reflect the diffusion of a political regime across countries and have a clear impact on the strength of a political regime. Historical examples include the democratic transitions in Eastern Europe, Central Asia and Africa which happened after the fall of the Soviet Union in 1990 or the many dictatorships in Europe during the 1930s. Based on this theory, we construct a single dichotomous variable used to define a country as democratic or autocratic; we also construct a variable for each country based on the jack-knifed average of the democracy index of all other countries in the same geographical area which captures the effect that the political system of countries in the same area has on a country's political system. We then use this jack-knifed average as the instrumental variable in a 2SLS estimation and examine its impact on a country's political regime and consequently on taxation. This econometric technique has not been sufficiently used in examining the relationship between democracy and taxes before.

3. Following Schulze and Ursprung (1999) economic integration can have two effects on taxation: The efficiency effect, which leads to lower taxes because countries compete in order to attract capital or the compensation effect, which states that globalization is associated with certain risks, mainly job losses; therefore taxes need to increase in order to finance welfare programs.
Education positively affects tax revenues, because increased educational attainment and literacy makes citizens realize that increased taxes are needed in order to provide public goods and redistribute wealth in the economy (Mutascu and Danuletiu (2013), Hennighausen and Heinemann (2015)).

4. Following Table 1: Descriptive statistics, I provide a correlation matrix.

5. I have run both an ordinary least squares (OLS) as well as a fixed effects panel data estimation where I examine the effect of democracy on tax revenues directly without neighbouring effects or a two-stage least squares estimation.

6. Unfortunately, I was unable to find data on tax *rates* for many countries in the sample dataset. In fact I was only able to find sufficient data on tax rates on capital, labor and consumption for OECD countries and not any other countries. Therefore, I regress direct tax revenues, indirect tax revenues and tax ratio on democracy instead.

7. I have removed Tables 5a, 5b and Tables 6a, 6b in the revised manuscript.

8. I control for the interaction between openness and democracy by using the product of the democracy and openness index (*Opennes xDemocracy*), following the reviewer's suggestion. I do not use the *Investment* variable anymore, following the advice of Reviewer 1 about bad control problems so I also do not use any combination of investments with the political regime.

9. I have added a GMM estimation in our revised manuscript.