

Title: Subnational fiscal accounts under pressure: the effects of COVID-19 in a developing country  
Authors: Javier Pérez, Paula Barrios

## Abstract

The COVID-19 pandemic has represented the worst historic shock for many countries around the world. The consequences of the world's most generalized lockdowns in history translated into the deepest falls in production and employment, and the consequent increases in poverty and extreme poverty, with the massive closure of companies of all sectors and sizes. Whether these effects are being temporary or long lasting is still to be answered, in particular because the pandemic is far from over and some productive sectors in many countries are still under restrictions.

The literature has been dynamic in looking for the effects of the lockdowns on almost every aspect affecting social and economic indicators. Despite all these, we found very scarce literature on the analysis of the pandemic on the subnational public finances, especially in developing countries. This paper's main purpose is to fill this gap by using the particular case of Colombia, a developing Latin American country with two levels of local governments, departments and municipalities. In particular, our purpose is to answer the following questions: i) to what extent the lockdowns to prevent the spread of the COVID-19 affected the revenues, expenditures, investments and debt services of subnational governments? ii) were these effects differential for departments and municipalities? iii) for investments, is there any evidence of heterogeneity across sectors? iv) for revenues, is there any evidence of heterogeneities across of sources of funding?

In order to answer these questions, we use a difference in differences strategy and a panel quarterly database for both, municipalities (departments' capitals only) and departments. The period of time covered goes from 2015:1 through 2021:1, where the post pandemic period begins in 2020:2. The identification strategy is based on the economic vulnerability of the subnational economies. From the sectoral production structure in every municipality and department, we identify those sectors with the highest participation. Then, based on the previous literature which identified the most affected sectors in the economy as a whole, we picked out those departments and municipalities which are intensive (with production participations over 50%) on the vulnerable sectors previously identified. The control group is made up for those departments and municipalities of the remaining territorial entities.

The results are revealing in showing that local public finances for both levels of subnational governments faced a strong turn down, especially regarding revenues. For municipalities, the industry and commerce tax, and the property tax reduced substantially because of the lockdowns. The same effect was evident for the departments' main revenues, beer tax, wine and liquor tax, and vehicle tax. The effects on the expenditure accounts, personnel and functioning, are weaker and less evident. Investments shows a strong heterogeneity, where the two main targeted sectors, health and education, did not reduce during the lockdowns, and their investments have even increased. These results are consistent with the fact that funding of these two sectors is already guaranteed from the national transfers, and are not affected by the local governments' own revenues.

Keywords: subnational public finances, Covid-19, developing country

JEL codes: H70, O54, R11

H70: State and Local Government • Intergovernmental Relations - General

O54: Latin America - Caribbean

R11: Regional Economic Activity: Growth, Development, Environmental Issues, and Changes