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## PRESS RELEASE

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### **Fiscal policy and TFP in the OECD: Measuring direct and indirect effects**

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This paper analyses the influence of fiscal policy on total factor productivity (TFP) and per capita output in a panel of 15 OECD countries over the period 1970-2012 using an aggregate production function framework.

An important issue in the growth literature is the fact that TFP is largely unobserved. Leaving TFP out of the equation leads to inconsistent estimates if it is correlated with the observed explanatory variables and can even give rise to a spurious regression problem if it is non-stationary. Existing empirical work on fiscal policy and economic activity generally tends to use *ad-hoc* proxies for technology (e.g. common time trend and country fixed effects). In this paper, the authors pursue an alternative, potentially promising, way out of the omitted variables problem by exploiting the strong cross-sectional correlation observed in the data used by the authors to identify TFP. They further explore the time variation in a country's access to a globally available level of technology. As such, apart from direct effects, they are also able to identify indirect effects of fiscal policy on TFP through its impact on absorptive capacity of technology by the country.

To deal with these indirect effects, the authors implement a non-linear CCEP estimator. They further test for cointegration using the Panel Analysis of Non-stationarity in Idiosyncratic and Common Components (PANIC). The small sample properties of their proposed estimation and cointegration method are analysed using a small-scale Monte Carlo simulation tailored to their empirical specification and to their dataset.

Their estimation results demonstrate the key role of fiscal policy in the development of TFP. They find robust evidence for both direct and indirect effects, with the latter operating via a country's access to the global level of technology and knowledge. A number of clear policy implications emerge. A first implication concerns the importance of sound fiscal policies, meaning budget balance (or even surplus) in the long run. Expenditure has to be financed by government revenue. The only exception concerns deficit-financed productive expenditure (e.g. government investment, spending on schooling and R&D). According to their evidence, these contribute to public capital, and as a result raise the productivity of private capital and labour without harming TFP.

A second key implication is that policy-makers should not only strictly monitor the level of government expenditure and taxes, but also their structure. Their results support a restructuring of outlays from social transfers and public consumption to productive expenditure, and a shift from personal income and corporation taxation to consumption tax. The evidence that they obtain in favour of reducing corporation tax mainly concerns the possibility of increasing a country's capacity to absorb world technology. On this point, one clear final policy implication of our findings is the importance of promoting openness to world trade.