WP/17/192

IMF Working Paper

Macroeconomic and Distributional Effects of Personal Income Tax reforms: A Heterogenous Agent Model Approach for the U.S.

By Sandra Lizarazo, Adrian Peralta-Alva, Damien Puy

INTERNATIONAL MONETARY FUND

 WP/17/192

IMF Working Paper

Western Hemisphere Department

Macroeconomic and Distributional Effects of Personal Income Tax reforms:

A Heterogenous Agent Model Approach for the U.S.[1]

Prepared by Sandra Lizarazo, Adrian Peralta-Alva, Damien Puy

Authorized for distribution by Nigel Chalk

July 2017

Abstract

This paper assesses the macroeconomic and distributional impact of personal income tax (PIT) reforms in the U.S. drawing on a multi-sector heterogenous agents model in which consumers have non-homothetic preferences and sectors differ in terms of their relative labor and skill intensity. The model is calibrated to key characteristics of the US economy. We find that (i) PIT cuts stimulate growth but the supply side effects are never large enough to offset the revenue loss from lower marginal tax rates; (ii) PIT cuts do "trickle-down" the income distribution: tax cuts stimulate demand for non-tradable services which raise the wages and employment prospects of low-skilled workers even if the tax cut is not directly incident on them; (iii) A revenue neutral tax plan that reduces PIT for middle-income groups, raises the consumption tax, and expands the Earned Income Tax Credit can have modestly positive effects on growth while reducing income polarization; (iv) The growth effects from lower income taxes are concentrated in non-tradable service sectors although the increased demand

[1] We grateful to Nigel Chalk, Stephan Danninger, Vitor Gaspar, Gian Maria Milesi-Ferretti, and Marialuz Moreno Badia for their valuable comments, as well as Andrew Berg and Catherine Pattillo for supporting a broad macro-inequality research agenda, from which this paper ultimately derived. All remaining errors are ours.

for tradable goods generate positive spillovers to other countries; (v) Tax cuts targeted to higher income groups have a stronger growth impact than tax cuts for middle income households but significantly worsen income polarization, even after taking into account trickle-down effects and an expansion of the Earned Income Tax Credit.

JEL Classification Numbers: E62, H24, H3

Keywords: Fiscal Policy, Tax Changes, Tax Multipliers, Income, Income Distribution

Author's E-Mail Address: SLizarazoRuiz@imf.org, APeralta-Alva@imf.org, DPuy@imf.org