CHALLENGES IN GREENING THE ECONOMIES: A CGE ANALYSIS OF THE INFLATION REDUCTION ACT (IRA)

Inflation has been a major player in the world economy in recent years since the Covid pandemic. After two years, however, the hope of an early recovery from the negative effects of the pandemic has been dampened by the outbreak of the war in Ukraine, which has had its effect on energy prices, and thus on inflation. Like many other countries, the US has broken inflation records during 2022. Consumer prices are on track to have risen by about 7% in 2022, the highest in four decades (The Economist, 2022).

The Inflation Reduction Act (IRA) signed by President Biden in August 2022 has as its main objective the reduction of inflation through a public deficit relief from 2022 through 2031 ($230 bn in 10 years according to the CBO). In addition, it includes historic investments in Energy Security and Climate Change programs ($391 billion) over the next ten years to reduce carbon emissions by 40% by 2030 (Congressional Budget Office, 2022). Furthermore, it extends the Affordable Care Act (ACA) program[1] and the Part D coverage to ease medical access for low-income households ($108 billion). As for the financing of this law, the government estimates that it will raise more than $730 billion through the establishment of a (15% corporate minimum tax ($313 billion)), Internal Revenue Service tax enforcements ($138 billion) and through a reduction in the federal healthcare spending ($288 billion). Since its inception this law has been a matter of debate which has even surpassed the U.S. borders. First, early impact estimates of this law (Congressional Budget Office, 2022; Penn Wharton Budget Model, 2022) conclude that it will have no effect on inflation. Regarding the tax increases contemplated in the IRA, the Joint Committee on Taxation (2022) estimates that the bulk of the tax increases will be under manufacturing industries (increasing the difficulty to invest) and that the tax increases will affect households making less than $400,000, differently from what The White House (2022) ensures. President of the European Commission Von der Leyen said that the investment destined for greening the economy under the IRA could lead to unfair competition, closing down markets and fragmenting supply chains (Financial Times, 2022).

Our preliminary long-term results show a limited but positive impact on the main macroeconomic variables. According to our first estimates, the plan would indeed achieve a reduction in inflation in the long run (once the capital stock is increased), albeit small. Although the Consumer Price Index (CPI) would fall by almost 1% (0.98%), our result is far from the 0.05% obtained by Huntley & Ricco (2022) or the 0.1% estimated by the CBO (2022) for the long run. In terms of GDP, we also obtain slightly higher impacts (0.19%) and wages than both studies. From our results we derive that deficit reduction does indeed reduce the CPI, and so does the increase in capital stocks (and the efficiency increase associated), but the tax increases would reduce this positive effect. Moreover, the increase in capital stocks and government spending raises real

[1] Also known as the "Obamacare".

wages by more than 1.6%, but the tax increases and the output efficiency increase in the long run compensate for this result leaving final wages nearly unchanged.

All in all, the paper offers a comprehensive analysis of the impact of the Inflation Reduction Act covering revenues and outlays through means of a computable general equilibrium model that allows us to introduce sector-level shocks and offers us a rich set of macro and micro estimates.

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