Unlocking the gates of paradise: General equilibrium effects of information exchange☆

Luca Marchiori, Olivier Pierrard*

Central Bank of Luxembourg, Luxembourg

ABSTRACT

In a move to reduce bank secrecy and fight international tax evasion, about 100 tax jurisdictions have so far committed to implement a new standard on the Automatic Exchange of Information (AEoI). This paper examines the quantitative consequences of the AEoI for an onshore country, using a neoclassical model with an offshore financial center. Our main findings are (i) the AEoI increases government revenues but reduces welfare; (ii) welfare improves when using the AEoI revenues to reduce tax pressure or when including household wealth inequality; (iii) government revenues increase further when accounting for a disclosure penalty cost. These results depend on the general equilibrium effects, absent from earlier papers on offshore financial centers.

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1. Introduction

On 29 October 2014, the OECD brought together 51 separate tax jurisdictions that agreed on the *Automatic Exchange of Information (AEoI)* principle and since then, the number of signing jurisdictions has continuously increased. The AEoI sets a new global standard for countries and offshore financial centers to exchange information as soon as 2017 or 2018.[1] While this automatic information exchange paves the way for more social justice, its macroeconomic implications are largely unknown and virtually not addressed in current debates. This paper analyzes the quantitative implications of automatic information exchange within a neoclassical model, which is a useful and widely used laboratory to evaluate fiscal-policy experiments (see Section 2 for a review).

In the basic closed-economy neoclassical model with variable labor and endogenous capital accumulation, there is a complete and direct transition from households' savings to firms' capital. We extend this model by introducing an offshore

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[1] The list of signing jurisdictions is available at www.oecd.org/tax/exchange-of-tax-information. The term jurisdiction describes any territory with its own legal system, regardless whether it is an independent or sovereign state. This term is common in the context of tax havens and offshore financial centers. We also want to mention that the literature usually uses the words offshore financial centers and tax haven interchangeably (see e.g. Hines, 2005). Appendix A provides a proper definition of the two words as well as a discussion about their – subtle – differences. Throughout this paper, we mainly use the name offshore.

financial center (OFC hereafter). In other words, our model depicts a – high income – world divided into a representative offshore region and a representative non-offshore region (we call it onshore hereafter). Before reaching the firm, onshore savings may transit across the OFC which enables the household to evade a part of the due capital income taxes. Our modeling is based on the observation that a significant part of unrecorded assets of rich countries sent offshore are subsequently returned back to the same rich countries as recorded liabilities, the so-called 'round-tripping' of capital (see e.g. Hong and Smart, 2010). The government, in the onshore economy, also collects taxes on labor income and consumption and rebates lump-sum all revenues to the household. We calibrate the onshore economy to match salient features of high income countries (see Appendix A for a definition) and we follow Zucman (2013b) to calibrate the current level of capital tax income evasion. This bare-bones model is subsequently enriched with various elements like a disclosure penalty cost for tax evaders or household heterogeneity to account for unequal wealth distribution. We investigate how information sharing between tax authorities affects public finance, the macro-economy and *in fine* welfare in the onshore country. To our knowledge, this study is the first attempt to provide a rigorous quantitative analysis of the impacts of information exchange on public finance and welfare, based on a micro-founded general equilibrium model.[2]

According to Zucman (2013b), offshore financial centers hold 8% of the global financial wealth of households living in rich countries, three-quarters of which goes unrecorded. Zucman (2013a) evaluates the revenue losses of capital income tax evasion to be around $130 billion each year using a simple accounting approach, meaning that onshore government revenues should increase by such an amount under a complete and perfect AEoI implementation. This represents approximately 0.3% of the GDP of high income countries. This number is close to the increase in government revenues, $139 billion each year, following a perfect exchange of information when using our model in a pure accounting way, i.e. holding all other variables fixed at their initial steady state values. This result implies that raising recorded assets held in OFCs, from 25% to 26%, would increase tax revenues by $1.86 billion, which corresponds to an elasticity of tax revenues to information exchange of 0.011. Our bare-bones model, which takes into account the general equilibrium effects, yields a tax revenue elasticity of 0.003, i.e. three times less than the pure accounting approach, and a negative welfare elasticity of −0.005. Indeed, information sharing implies a higher implicit capital income tax rate, which reduces *in fine* capital accumulation and consumption. However, we show that the effects of information exchange become much more positive when (i) we introduce a disclosure penalty cost and take into account the transition effects from the initial to the final steady states, and (ii) we introduce unequal wealth distribution – and tax evasion – between households (compared to the bare-bones model, the tax revenue elasticity is almost three times larger and equal to 0.008, while the welfare elasticity is positive and equal to 0.028). Moreover, using the tax receipts from the AEoI to reduce tax pressure – instead of transferring these receipts lump sum to the household – also improves the welfare situation. We therefore show that even within a neoclassical model where distortionary taxation is harmful, the AEoI may increase global welfare. From a policy standpoint, this analysis shows that the OECD efforts to boost transparency and end tax evasion may produce substantial positive spillovers in terms of public finance and welfare, beyond all ethical considerations.

This paper touches on two other strands of the economic literature besides the quantitative neoclassical studies (see Section 2 for a review). First, it is obviously linked to the literature on tax havens or offshore financial centers, which mainly consists of partial equilibrium tax competition models. The general equilibrium approach of this paper allows taking into account direct and indirect effects of regulation on variables of interest. Second, a separate literature focuses on national tax evasion, instead of international tax evasion, and has also recently stressed the necessity of accounting for general equilibrium effects. It is also worth noting that most of the above mentioned literature focuses on closed-form solutions, while this paper goes into more quantitative analysis. Beyond providing a quantification of the impact of information exchange, the numerical analysis also allows evaluating the effects of the AEoI during the dynamic transition and under non-analytically tractable extensions, as general utility functions or the introduction of heterogeneous agents.

We review the literature in Section 2 and detail the model in Section 3. We explain the calibration in Section 4 and show several numerical results in Section 5. We introduce and study the role of unequal wealth distribution in Section 6. We conclude and discuss planned extensions in Section 7.

2. Literature

This paper studies the implications of information exchange in a quantitative neoclassical framework. Our approach is similar to the one employed by the general equilibrium literature to evaluate fiscal-policy experiments. For instance, Baxter and King (1993) examine the macroeconomic consequences of changes in fiscal policy using a quantitative neoclassical framework where households derive utility from public consumption and from productive public investment. McGrattan (1994) studies the business cycle and welfare effects of distortionary taxes on capital and labor incomes, using a standard general equilibrium model with public goods in the utility. Chari et al. (1994) analyze the quantitative consequences of optimal fiscal policy, focusing on labor and capital income taxes. Schmitt-Grohe and Uribe (1997) look at the impact of fiscal policy rules on business cycles within a neoclassical growth model where labor income taxes balance the budget. Trabandt and Uhlig (2011) compute the Laffer curves for various taxes and countries (US and the EU-14), in a neoclassical growth model. This paper differs from this existing literature by extending the basic closed-economy neoclassical

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