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Tax reform and labour-market performance in the euro area: A simulation-based analysis using the New Area-Wide Model ☆

Günter Coenen*, Peter McAdam, Roland Straub

European Central Bank, Kaiserstrasse 29, 60322 Frankfurt am Main, Germany

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Abstract

In this paper, we employ a calibrated two-country version of the New Area-Wide Model (NAWM) developed at the European Central Bank to examine the potential benefits and spillovers of reducing labour-market distortions caused by euro area tax structures. Our analysis shows that lowering tax distortions to levels prevailing in the United States would result in an increase in hours worked and output by more than 10%. At the same time, tax reductions would have positive spillovers to the euro area's trade partners, bolstering the case for tax reforms from a global perspective. Finally, we illustrate that, in the presence of heterogeneous households, distributional effects may be of importance when gauging the impact of tax reforms.

JEL classification: E32; E62

Keywords: DSGE modelling; Limited asset-market participation; Fiscal policy; Tax reform; Euro area

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*Corresponding author. Tel.: +49 69 1344 7887.
E-mail address: gunter.coenen@ecb.int (G. Coenen).
URL: http://www.guentercoenen.com (G. Coenen).

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1. Introduction

What are the important driving forces and economic mechanisms behind the cross-country differences in labour utilisation that have emerged over the recent decades? This question has triggered an intense debate about *institutions versus preferences* as potential explanations of lower labour utilisation in Europe relative to the United States. Prescott (2004) argues forcefully that institutions, and in particular taxes on labour income, are the main explanation for lower labour utilisation in Europe, as measured by the average number of hours worked. In contrast, Blanchard (2004) suggests that European preferences for leisure are an important determinant of the observed downward trend in hours worked. Similarly, Alesina et al. (2006) claim that Europeans work much less because of the influence of trade unions in the seventies, eighties and part of the nineties (partly reflecting preferences for social cohesion) and because of widespread labour-market regulations creating disincentives to work.

In this paper, we start from Prescott's (2004) analysis and ask the counterfactual question of what would happen in terms of hours worked and overall economic performance if the labour-market distortions originating in European tax structures were to be reduced to levels prevailing in the United States. To answer this question, we employ a calibrated two-country version of the New Area-Wide Model (NAWM) developed at the European Central Bank.[1] The specification of the NAWM builds on recent advances in developing micro-founded DSGE models suitable for quantitative policy analysis, as exemplified by the closed-economy model of the euro area by Smets and Wouters (2003), the International Monetary Fund's Global Economy Model (GEM; cf. Bayoumi et al., 2004) or the Federal Reserve Board's new open-economy model named SIGMA (cf. Erceg et al., 2005). Thus, it incorporates numerous nominal and real rigidities in an effort to improve its empirical fit regarding both the domestic and international dimension. The employed version of the NAWM consists of two symmetric countries of different size: the euro area and the United States, the latter representing the rest of the industrialised world. International linkages arise from the trade of goods and international assets, allowing for imperfect exchange-rate pass-through and financial intermediation costs. Thus, the model permits us to also gauge the international repercussions that may arise from the reduction of labour-market distortions.[2]

In addition, building on Coenen and Straub (2005), the NAWM features two distinct types of households which differ with respect to their ability to participate in asset markets, with one type of household only holding money as opposed to also

[1] The existing Area-Wide Model (AWM; cf. Fagan et al., 2001) is a traditional macroeconometric model for the euro area, which features Keynesian behaviour in the short run, with output determined by aggregate demand, and is classical in the long run, with output determined by aggregate supply.

[2] Focusing on tax reforms aimed at replacing a country's tax on capital income with a consumption tax, Mendoza and Tesar (1998) show that the ability to borrow from abroad reduces the transition costs and shifts some of the burden of the adjustment onto the rest of the world. In more recent work, Mendoza and Tesar (2003) consider the strategic interactions that are likely to result from the international externalities of unilateral tax reforms. Such interactions are not addressed in the present study.