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# Convergence-driven inflation and the channels of its absorption<sup>☆</sup>

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## Abstract

Convergence-driven inflation is an important issue from the perspective of catching-up economies, especially those within a heterogeneous monetary union. This study contributes to the existing literature by analysing the role of the labour and product markets in mitigating inflationary pressure stemming from the catching-up process. It is demonstrated that disregarding the developments of sectoral wages and mark-ups severely distorts the estimates of the convergence-driven inflation. The empirical results obtained for the Czech Republic, Hungary, Poland and Slovakia provide a basis for assessing the risk of common monetary policy in the euro area being inadequate for their economies.

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## 1. Introduction

The convergence-driven inflationary pressure may constitute a major source of structural inflation differentials between developing and developed economies, thereby affecting their real

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exchange rates and, hence, competitive positions (see Balassa, 1964; Canzoneri, Cumby, & Diba, 1999; De Gregorio, Giovannini, & Wolf, 1994; Kakkar, 2003; Samuelson, 1964). Although the Balassa–Samuelson effect is an equilibrium phenomenon, it may lead through secondary demand-side effects to the built-up of macroeconomic imbalances, both internal and external, in the catching-up economies. This risk is especially pronounced within a heterogeneous currency union, such as European Monetary Union (EMU), where structural inflation differentials are amplified by the differences in real interest rates. In the absence of autonomous interest and exchange rate policies the adjustment process hinges upon the shock-absorption capacity of the product and labour markets. Therefore, if this capacity is limited the common monetary policy may prove to be sub-optimal from the perspective of less economically developed member states.

In Greece, Portugal, Spain and Ireland the inflation rate systematically exceeded the EMU average in the first decade after the introduction of the euro, considerably reducing their price competitiveness. Consequently, persistently high current account deficits developed, accumulating into considerable stocks of net external liabilities. As a result, the countries became increasingly vulnerable to macroeconomic risks that materialised during the recent financial crisis, indicating that the inadequacy of the common monetary policy may constitute a serious cost of introducing a common currency (i.a. Arghyrou & Gadea, 2012; Blanchard, 2007; Honohan & Leddin, 2006; Issing, 2011; Krugman, 2013; Lane, 2011; Salvatore, 2015). Therefore, a proper risk assessment of this inadequacy should become a major element of cost-benefit analysis for the prospective member states of a currency union. Additionally, an analysis of the economy's capacity to absorb inflationary pressure should serve as a basis for designing policy measures preventing competitiveness losses.

This study contributes to the cost-benefit analysis of euro adoption by four Central and Eastern European countries (CEECs), the Czech Republic, Hungary, Poland and Slovakia. Upon joining the European Union in May 2004 they became member states with a derogation for the adoption of the single currency, i.e. were obliged to join the third stage of the Economic and Monetary Union as soon as the convergence criteria stipulated in the Treaty on the Functioning of the EU are fulfilled (by 2016, only Slovakia met this obligation). Since the political transformation in 1989, the development of the CEECs has been predominantly marked by the catching-up process. In the years 1995 through 2015 the average annual growth rate of labour productivity<sup>1</sup> vis-à-vis the euro area was approximately 1–2% in Hungary and the Czech Republic and as much as almost 3% in Poland and Slovakia. Nonetheless, despite narrowing the gap in the last two decades, labour productivity in the four CEECs stands at merely 50–60% of that in the euro area. This suggests the convergence-driven inflationary pressure, as implied by the Balassa–Samuelson hypothesis, as a potential source of common monetary policy inadequacy in the case of the CEECs.

The focus of this study is therefore on the estimation of the systematic component of inflation differentials in the CEECs that can be attributed to their catching-up with the euro area. Since we argue that the Balassa–Samuelson effect should not be analysed separately from the potential channels of its absorption, both product and labour markets are tested for their effectiveness in mitigating the convergence-driven inflationary pressure. Their absorption capacity in this respect affects the risk of inflation acceleration after joining a currency union that can hinder the success of monetary integration.

The paper is organised as follows. Section 2 gives the theoretical background. In Section 3, the approach to estimating the Balassa–Samuelson effect, estimation techniques as well as the data

<sup>1</sup> Nominal labour productivity per hour worked based on Purchasing Power Parity.

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