# How economic integration fuels macroeconomic imbalances

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BankUnderground

August 29, 2019

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From the introduction of the Euro up to the 2008 global financial crisis, macroeconomic imbalances widened among Member States. These imbalances took the form of strong differences in the dynamics of unit labour costs, which increased much faster in 'peripheral' economies than in 'core' countries. At first, these imbalances <u>were</u> interpreted as reflecting a catch-up and convergence process within the Euro Area – and were supposed to fall as countries converged. But, more recently economists and policymakers have challenged this view, suggesting that imbalances reflected a broader competitiveness problem in <u>the 'periphery' compared to the 'core'</u> countries. This post, based on <u>a recent Staff Working Paper</u>, revisits the effect of economic integration on macroeconomic imbalances.

#### Unit labour costs: an important feature of macroeconomic imbalances

One key aspect of the Eurozone crisis was the building-up of macroeconomic imbalances before the global financial crisis. These imbalances were multifaceted: they took the form of an accumulation of large current account deficits in the 'periphery', as well as faster price inflation or increasing unit labour costs (ULCs), which reflect how wages evolve relative to labour productivity, relative to 'core' countries.

**Figure 1** shows unit labour costs in the periphery (Greece, Spain, Ireland, Portugal) relative to the core (Austria, Belgium, Germany, Finland, France, Italy, Luxembourg, Netherlands), from 1995 up to 2015. ULCs increased by over 25% more in the periphery than in core countries from 1995 up to the global financial crisis.

# Figure 1: Nominal unit labour costs (total labour costs to real output) in the periphery, deviation from core countries, 1995-2015 (index 1995=100)



Source: author's calculations using Eurostat.

Note: the periphery includes the four countries of the EA12 (countries that adopted the euro in 2001 and before) with the lowest GDP per capita (at purchasing power standards) in 1995: Greece, Ireland, Portugal and Spain. Core countries are Austria, Belgium, Germany, Finland, France, Italy, Luxembourg and the Netherlands. Group averages weighted by gross value added at current prices. Data start in 1999 for Belgium and 1998 for Ireland.

Since the crisis, these ULCs have been the subject of considerable attention. In December 2011, the <u>'six-pack'</u> introduced <u>a new surveillance procedure of</u> <u>macroeconomic imbalances at the European level</u>. In this procedure, the growth in unit labour costs is considered as an early warning of 'macroeconomic imbalances and competitiveness losses'. In June 2015, the European Commission advised the creation of National Productivity Boards in charge of assessing whether wages are evolving in line with productivity.

What are the drivers of these increasing imbalances? Are they the result of inefficiencies (frictions in labour or capital markets or fiscal profligacy) that could have partly caused the Euro crisis? Or are they the result of economic integration?

# Understanding the dynamics of non-tradable sectors is key

In a recent <u>Staff Working Paper</u>, I suggest that this loss in aggregate competitiveness does not reflect a loss in the competitiveness of the tradable/export-led sectors, but an increase in the share of the less competitive non-tradable sector. **Figure 2** displays the share of the non-tradable sector in total hours worked over 1995 to 2015 in the two

groups of Euro area countries. The share of the non-tradable sector rose steeply in the periphery over 1995-2007 (+4.7 percentage points), while it declined slightly in core countries (-0.3 percentage points). These shares started declining after the 2008 global financial crisis in the periphery but not in core countries. A housing bubble did contribute to the increasing share in the periphery in the period leading up to the financial crisis, but cannot explain a bulk of it; the increase in the non-tradable share is sizeable even when excluding the construction and real estate sectors from the sample.





Source: author's calculations using Eurostat and BACI.

Note: a threshold of 10% is used for the measure of tradability. Core countries: Austria, Belgium, Germany, Finland, France, Italy, Luxembourg, Netherlands. Periphery: Greece, Spain, Ireland, Portugal. Data start in 1999 for Belgium and 1998 for Ireland. Averages over countries are weighted by the number of hours worked.

#### A Baumol 'cost disease' revisited

I describe two main channels through which economic integration might induce an increase in unit labour costs in a catching-up economy. The theoretical framework is inspired by <u>William Baumol's so-called 'cost disease'</u>. According to this theory, the economy is divided into two sectors: a 'progressive' sector – with high productivity gains, where automation is possible, for example, the manufacturing sector; and a 'stagnant' sector – with low productivity gains, most often including labour-intensive activities, such as education. Productivity gains in the 'progressive' sector put upward pressure on wages in the entire economy. As a result, the cost of producing 'stagnant' services increases (increasing wages are not offset by increasing productivity or automation in the 'stagnant' sector). Since manufacturing goods prices decline, and services prices increase, the latter will represent a bigger share of households' budget but also a bigger share of total hours worked in the economy.

The theoretical framework adapts this cost disease to a tradable and a non-tradable sector. The intuition is as follows: as long as economic integration boosts productivity in the tradable sector of the periphery, the relative price of non-tradables increases. This productivity effect, also well-known as <u>Balassa-Samuelson effect</u>, leads to a relative (non-tradable to tradable) price increase. As the tradable sector is more productive, it requires less labour to produce the same output – so, conditional on the relative output of non-tradable and tradable activities being maintained and labour flowing to the non-tradable sector, this results in an expansion of the share of the non-tradable sector in total hours worked. Similarly, financial integration, by lowering interest rates (and thereby the cost of capital), allows larger cost reductions in the capital-intensive tradable sector, amplifying the increase in the relative price as well as the expansion of the share of the labour-intensive non-tradable sector in total hours worked.

In addition to these two main effects of economic integration, the model provides four additional effects that could contribute to an increase in the share of the non-tradable sector in total hours worked: (i) increased competition in the tradable sector, (ii) a demand-boom, (iii) capital misallocation and (iv) increases in public wages or public demand. In total, it is thus possible to identify six drivers of unit labour costs.

Taking this theoretical framework to the data, it is then possible to quantify the contribution of each of these effects to increasing unit labour costs in peripheral economies (compared to core countries). Before the global financial crisis, in Greece and Portugal in particular, the two main drivers of increasing unit labour costs are productivity gains in the tradable sector, and decreasing interest rates. Results also suggest that, in Ireland, increasing unit labour costs were related to competition, and in Spain, to a demand-boom. These results suggest that, at least in Greece and Portugal, economic integration was an important driver of increasing macroeconomic imbalances.

# Real convergence: a driver of imbalances

This exercise shows that, in catching-up economies, the effects of economic integration on the dynamics of the non-tradable sector and on the dynamics of unit labour costs are significant. As Blanchard and Giaviazzi already argued in 2002, poorer countries run larger current account deficits while catching-up. This analysis suggests that they also have an increasing relative price and size of the non-tradable sector, and increasing unit labour costs relative to richer countries. So, the increasing macroeconomic imbalances we saw in the euro area prior to the financial crisis could reflect, at least partly, the process of real and financial convergence in a monetary union.

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