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Price Competitiveness Divergence in the Euro Area: The Level Matters!

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PRICE COMPETITIVENESS DIVERGENCE IN THE EURO AREA:

THE LEVEL MATTERS!

Dominik Groll and Björn van Roye

The issue of price competitiveness divergences significantly gained in importance and increasingly caught the attention of policy makers throughout the euro area. At the end of February, the European Council and the European Commission presented a document for the implementation of the competitiveness "Pact" initiated by Germany's chancellor Angela Merkel and France's president Nicolas Sarkozy. It calls for "enhanced policy coordination in the euro area" to foster "real convergence and competitiveness" (Financial Times 2011). This proposal builds on a long discussion on competitiveness divergences within the euro area. In the past years, the European Commission published several reports in which it "analyses divergences in competitiveness among Euro Area Member states since the launch of the euro" (European Commission 2009). The president of the European Central Bank (ECB), Jean-Claude Trichet, is said to point at each meeting of the European Council at a divergent development of relative wage costs across euro area countries since the beginning of the European Monetary Union (Gros 2010: p. 3). In an interview with the Financial Times in March 2010 the French Minister Lagarde stated: "Clearly Germany has done an awfully good job in the last 10 years or so, improving competitiveness, putting very high pressure on its labor costs. (…) I'm not sure it is a sustainable model for the long term and for the whole of the group. Clearly we need better convergence" (Lagarde 2010).

Furthermore, it is frequently claimed that one of the main reasons for the emergence of the sovereign debt crises and the so-called macroeconomic imbalances within the euro area is this steady divergence in price competitiveness among the member countries. More generally, the European Commission states that "a smooth adjustment of intra-euro competitiveness divergences (…) is key for (…) the successful and sustainable functioning of EMU in the long term" (European Commission 2010a, p. 3). As a result of this diagnosis, the European Commission proposed to elaborate a mechanism that envisages an indicative scoreboard made up of an array of macroeconomic and macro-financial indicators designed to identify "imbalances" affecting the economy of a member state of the Union. In this proposal the Commission announced that "for euro-area Member States the enforcement mechanism could ultimately lead to the sanctions described in the regulation on enforcement measures to correct excessive macroeconomic imbalances in the euro area" (European Commission 2010b, p. 6). One indicator of the scoreboard is considered to be the development of unit labor costs as a measure of price competitiveness.

This article argues that the fixation on indices or growth rates in the current discussion around price competitiveness in the euro area and the policy proposals that emerged from entirely ignoring levels may be misleading. In particular, we first present the peculiar conclusions that have emerged from exclusively considering unit labor cost indices. We will then have a close look at available data on unit labor cost levels. Finally, we illustrate the odd

consequences of the rule explicitly or implicitly proposed by many economists that nominal unit labor cost should grow at the same rate across all member states of the euro area.

Levels, indices and growth rates

Figure 1 is supposedly one of the most important pieces of evidence to illustrate the divergent development of unit labor costs within the euro area. Figures that show price competitiveness indices based on other measures look very similar.[1]

Figure 1: Nominal unit labor costs indices 1992–2009
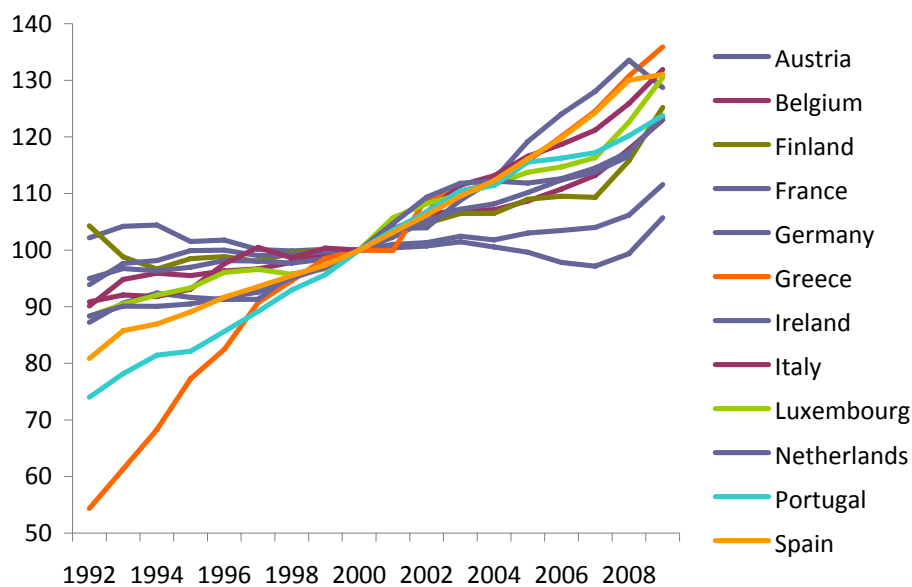
Source: OECD Main Economic Indicators, authors' calculation

Common conclusions drawn on the basis of this figure include the following:

- "the gap between unit labour cost trends in Germany and its European partners has widened sharply since 2000" (Flassbeck 2007, p. 44)

- "rising divergences between Germany and the rest of EMU point to an unsustainable real depreciation of the German relative cost position" (Flassbeck 2007, p. 43)

- "the competitiveness gap between Germany and the weaker performers has widened by some 30–40% in the space of ten years" (UniCredit 2010, p. 2)

- "the euro area experienced a steady divergence in the competitive position (…) of its Member States" (European Commission 2010a, p. 1)

- "competitiveness divergences (…) increased steadily in pre-crisis years" (Eurogroup 2010)

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[1]   Usually, these graphs are shown starting in 2000.

The quoted statements demonstrate that this figure seems to easily lead to wrong inter-pretations. A figure that normalizes the observed variable in a particular reference year, in this case 2000, and plots the evolution of that variable in subsequent years across countries is inappropriate in showing divergent or convergent processes. By construction, such a plot cannot show convergence in levels and therefore will always suggest "divergence" to the observer. In the best and also most unlikely case, all curves coincide throughout the entire period of time. Obviously, there seems to be confusion between indices and levels. When examining figure 1, it is absurd to speak of competitiveness "gaps" or competitive "positions" because these terms refer to the level of competitiveness. The choice of the reference year is completely arbitrary, different reference years would produce different "gaps" and "posi-tions" between countries.

Evidently, in order to visualize convergence or divergence in price competitiveness across countries, one must take a look at *levels*. We use unit labor cost level data as published by the OECD. Nominal unit labor costs are calculated as the ratio of total nominal labor costs and real output where total nominal labor costs are adjusted for the self-employed. Simple eyeball inspection leads to the conclusion that unit labor costs of euro area members have converged since 1992 (Figure 2).[2] This conclusion is confirmed by calculating the standard deviation for unit labor costs across countries for every year.

Figure 2: Nominal Unit labor costs levels 1992–2009 (base year: 2005)
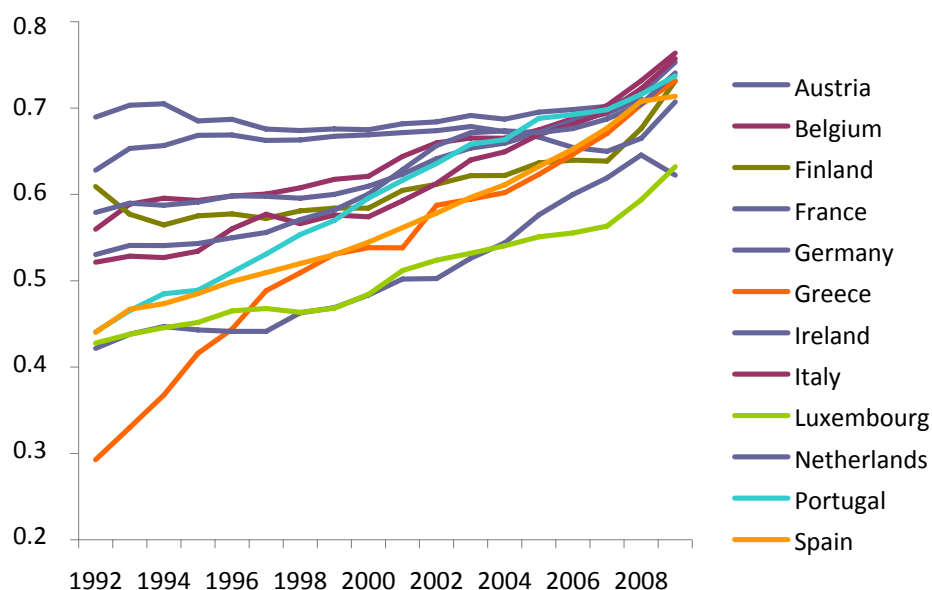
Source: OECD Main Economic Indicators

However, there is one major problem with respect to this assessment. Nominal unit labor costs are based on *real* output, and the levels of real variables are always based on one particular year. Thus, figure 2 shows the levels of unit labor costs *conditional* on the base year used to calculate real output, in this case 2005. It is straightforward to rebase unit labor

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[2]   Note that figure 1 has been calculated with the exact same data set as figure 2.

costs to another year.[3] When unit labor costs are calculated conditional on the real output base year 1992, one would draw the conclusion that – in contrast to the previous case – unit labor costs between euro area countries have diverged since 1992 (Figure 3).

Figure 3: Nominal unit labor costs levels 1992–2009 (base year: 1992)
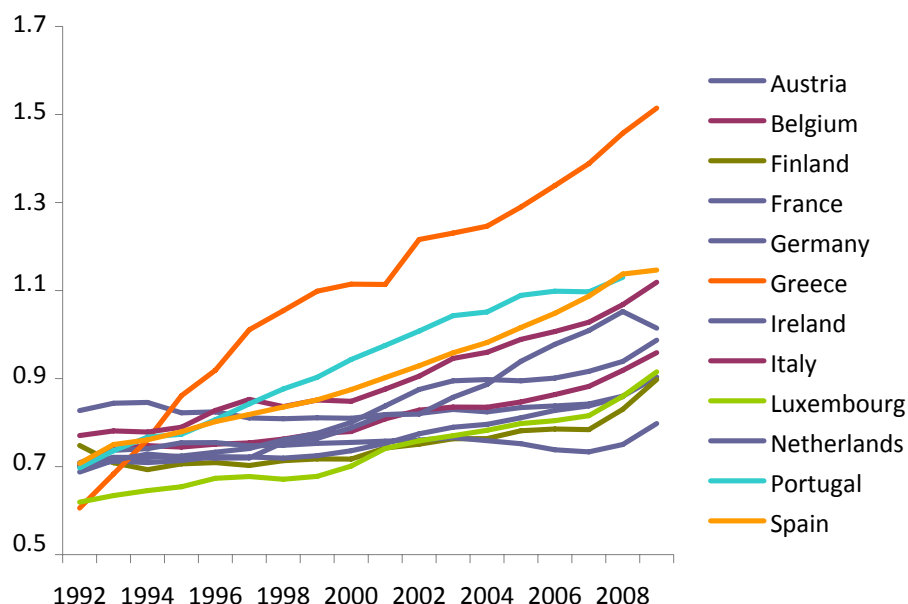
Source: OECD Main Economic Indicators, authors' calculation

By the same token, one could produce 18 different graphs for every base year in the period of consideration and come to 18 different conclusions about convergence or divergence of unit labor costs in the euro area.

A measure which is comparable across countries over time are *real* unit labor costs (total nominal labor costs divided by *nominal* output). The advantage is that only nominal variables are involved.[4] Thus, the base year problem vanishes and levels are unique. However, since nominal output is used for their calculation, real unit labor costs are influenced by price effects.[5] Therefore, the evolution of real unit labor costs over time is inappropriate in detecting changes in price competitiveness.

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[3] The OECD data set on nominal unit labor costs in levels can be reproduced precisely by taking the labor income share of 2005 and extrapolating into the past and future with the annual growth rates of nominal unit labor costs, which are published separately by the OECD. Thus, in order to rebase the series to 1992, the same procedure can be conducted simply by using the labor income share of 1992.

[4] This may sound contradictory, but that is how this variable is labeled.

[5] Consider a country whose real unit labor costs decreased because nominal output increased. Normally, a decrease in real unit labor costs would indicate a gain in price competitiveness. Yet, the increase in nominal output could have been either due to an increase in production or due to an increase in prices. In the first case the country would have gained in price competitiveness, in the latter it would have lost in price competitiveness.

The unsatisfying conclusion with respect to divergence or convergence is the following: On the one hand, the levels of *nominal* unit labor costs depend on the base year used to calculate real output. Therefore, the levels are not unique and convergence or divergence cannot be determined. On the other hand, the levels of *real* unit labor costs which are based on nominal output are unique, but real unit labor costs are not appropriate in tracking price competitiveness over time. Thus, convergence or divergence of real unit labor costs could be determined, but this would not be equivalent to convergence or divergence in price competitiveness.

Implications of misguided policy proposals

Let's go back to unit labor cost indices. Figure 4 is a reproduction of figure 1, but now only for selected countries, only for the period 2000–2009, and including additionally the ECB's price stability target. As already explained, divergence in unit labor costs cannot be visualized by this figure, because it does not show levels. Notwithstanding, an additional explanation of what went wrong in this figure exists.

Figure 4: Nominal unit labor costs indices and inflation target 2000–2009
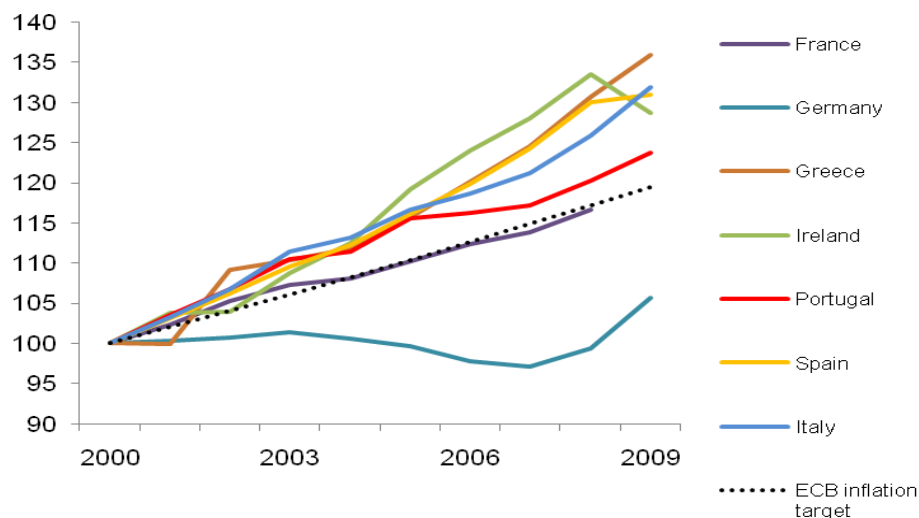
Source: OECD Main Economic Indicators, authors' calculation

Flassbeck (2007) and Flassbeck and Spiecker (2010) claim that the European Monetary Union can only function under the rule that "unit labor costs (…) neither exceed nor undershoot a 2 per cent growth path in each member state. Violations of this rule will cause divergence of national real exchange rates and national levels of competitiveness" (Flassbeck 2007, p. 51). Between 2000 and 2009 unit labor cost growth in the peripheral member countries has been above the ECB's price stability target, whereas unit labor cost growth in Germany has been way below. As a result, the peripheral countries of the euro area saw their price competitiveness deteriorate significantly vis-à-vis Germany. According to the authors, if every country had "behaved" like France whose unit labor cost growth has been almost

exactly in line with the inflation target, today's situation of macroeconomic "imbalances" within the euro area would not be as dramatic. In other words, through wage moderation, German firms have gained price competitiveness at the expense of other member countries, especially Greece, Ireland, Portugal, and Spain. As a consequence, Germany must "enforce" much higher unit labor cost growth in the future to "close the gap" without the peripheral countries having to go through deflation.

In a recent speech, the president of the ECB stated that "a medium-term inflation rate of somewhat below 2% over the medium term is the appropriate benchmark also at the national level. Unit labour costs, and therefore wage developments, after having taken due account of the labour productivity increases, need to be consistent with this" (Trichet 2011). Although this proposition remains inexplicit to some extent and although other parts of the speech stand in contrast to Flassbeck and Spiecker's arguments[6], this statement seems to deliver the same proposal of equal unit labor costs growth across euro area countries.

The proposal that nominal unit labor costs grow by two percent in every euro area country at any point in time is the result of the following wage setting rule:

$$(1+w) = (1+p)(1+\pi) \Leftrightarrow w \approx p + \pi$$

The equation states that the growth rate of nominal wages (w) equals approximately the sum of the growth rate of productivity (p) and the inflation rate (π). This implies that the growth rate of nominal unit labor costs *(w – p)* should equal the inflation rate (π).

Although there may be very good reasons in propagating this wage setting rule, there are two problems we would like to emphasize.[7] First, this rule completely ignores the past. Low growth rates in nominal unit labor costs in a, say, 10 year period might just as well be the re-action to high growth rates in the 10 years before.[8] Second and more importantly, the rule completely ignores levels. To illustrate this, let's consider the following hypothetical develop-ment (Figure 5). Assume that the level of unit labor costs had been 0.9 in Greece and 1.0 in Germany in the year 2000. The proposal postulates that unit labor costs had grown by 2 percent annually in both countries in subsequent years. Clearly, the result would have been an increasing difference between the unit labor cost levels. Thus, unit labor costs of the two countries would have *diverged*. Not the violation, but the adherence to the rule that unit labor costs across countries of the euro area grow by the same rate every year will inevitably lead to divergence between the countries' levels of unit labor costs, except in the unlikely case in which the levels coincide initially.

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[6]   For example: "Because the community benefits, competitiveness is not about becoming richer at the expense of others – the infamous beggar-thy-neighbour philosophy" (Trichet 2011).

[7]   They may be viewed as two sides of the same coin.

[8]   In its latest report, the Economic Advisory Council of Germany (Sachverständigenrat 2010: paragraph 185) states that the moderate growth in unit labor costs in Germany in the 2000s can be interpreted as an endogenous adjustment to the significant loss in price competitiveness in the 1990s not least due to German reunification.

Figure 5: Thought experiment
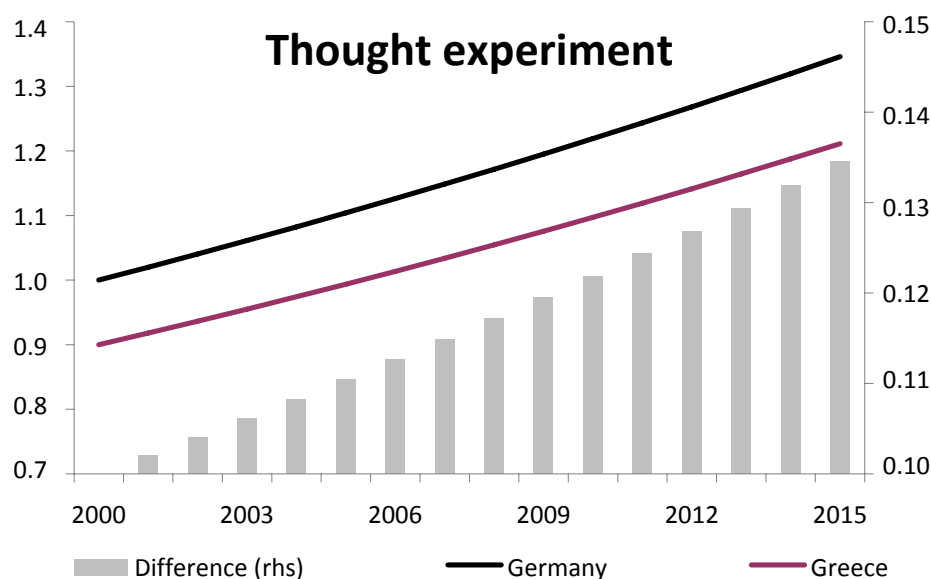
Source: Author's calculations.

The wage setting rule implies that real exchange rates between euro area countries are not allowed to change. In a currency area, where nominal exchange rates are irrevocably fixed, macroeconomic adjustment across member states can occur only through factor movements between countries or through relative price and wage changes, provided that unemployment is to be avoided. Since labor mobility within the euro area is still relatively low, adjustment in relative prices and wages and therefore real exchange rates is the only accommodative mechanism left. It is important to recognize that the trigger of macroeconomic adjustment may be asymmetric shocks across countries, but also the process of economic development when – as is the case in the euro area – there are considerable differences in the level of GDP per capita. In other words, economic convergence requires real exchange rate adjustments.

Conclusions

In order to assess divergences in price competitiveness across euro area countries, the decisive measure are levels, not growth rates nor indices. This holds true for every price competitiveness indicator, although in this article we only addressed unit labor costs. Unfortunately, whether price competitiveness has converged or diverged in the euro area can be answered neither with nominal nor with real unit labor costs.

Focusing on growth rates has already led to misguiding conclusions and policy advice, as shown by our thought experiment. A rule calling for equal growth rates in nominal unit labor costs across countries would necessarily result in divergence in unit labor cost levels and would be equivalent to fixing real exchange rates. In a currency area where nominal ex-

change rates are fixed and labor mobility is still relatively low, it would certainly be absurd to postulate that real exchange rates should not be allowed to move.

All in all, the appropriateness of unit labor costs as an indicator for divergences in price competitiveness in the euro area is highly questionable. Without being able to observe levels of price competitiveness over time as a reference, the change in price competitiveness yields little useful information on competitive positions and thus for policy advice.

Finally, even if an appropriate measure of unit labor costs existed, the basis for sanctions as proposed by the European Commission would still be missing, because governments cannot directly control the wage setting process in the private sector. In market economies like the euro area, wage setting is a decentralized bargaining process between firms and workers. Therefore, policy proposals that call for political interventions and even sanctions on the basis of unit labor costs are not reasonable.

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