COMPETITIVENESS AND UNIT LABOUR COSTS IN ROMANIA

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The present paper presents aspects related on Romanian competitiveness and its determination by unit labour cost (ULC). After reviewing the determinants of national competitiveness, it is taken into consideration the labour market as being an important determinant, one of the twelve pillars of competitiveness identified by World Economic Forum. Methodological aspects of determining the competitiveness through ULC are presented by considering the Kaldor's paradox. The analysis identifies methods of keeping low ULC, as options for Romanian competitiveness which is portrayed by the results of nominal and real ULC over the time, using OECD database.

Keywords: competitiveness, unit labour costs, labour market, Kaldor's paradox

JEL code: O11, J30, E0

Introduction

Competitiveness is understood as the ability to compete with rivals and in almost all economic analyses it is an essential element of success or failure of a policy. The concept has applicability to a firm, an industrial sector, an industry or even an economy. A competitive firm or economy is expected to out-compete its counterpart. However, competitiveness at firm level and that at macroeconomic level are markedly different from each other. For a region competitiveness is not like in a firm. A region may rise its competitiveness only by cooperation with other regions in order that when regions are more competitive, they all win. At the national level labour productivity and other economic indicators are frequently used for quantifying competitiveness. If long-term national competitiveness is associated with labour productivity, the argument can be further developed as follows: the vital variable for achieving the long-term competitiveness is growth in productivity in an economy.[250] Another perspective regarding competitiveness is that national competitiveness should be determined by price competitiveness, which makes real effective exchange rate and ULC important measures of national competitiveness[251]. When general statements of competitiveness are made, people commonly think of the latter, that is, the price competitiveness. For instance, when China is referred to as a competitive economy in the global market place, it is taken to mean that its currency is undervalued, the wages are lower than that of the neighboring economies and labour productivity is virtually the same or higher. This would help make the Chinese products competitive in the global market place and it would be able to out-compete the other Asian economies.

The latest report of the World Economic Forum defines competitiveness as "*the set of institutions, policies, and factors that determine the level of productivity of a country"*[252]. The recent spectacular economic growth in the developed countries has provoked a debate on the role and remuneration of human capital in development. From the neoclassical point of view flexibility of any form should be introduced to help equalize marginal productivity with wages and thus increase investments. But from an evolutionary perspective objections are raised to the extent that flexibility, defined only through labour market regulation, can contribute to socially

250 Krugman P., Livas Elizondo R., Trade policy and the third world metropolis. Journal of Development Economics 49 (1), 1996, pp 137–150.

251 Golub, S.S., International Standards and International Trade, IMF Working paper WP/97/37, International Monetary Fund, Washington, DC, 1997.

252 Porter M. E. and Schwab K., Global Competitiveness Report, World Economic Forum, 2008.

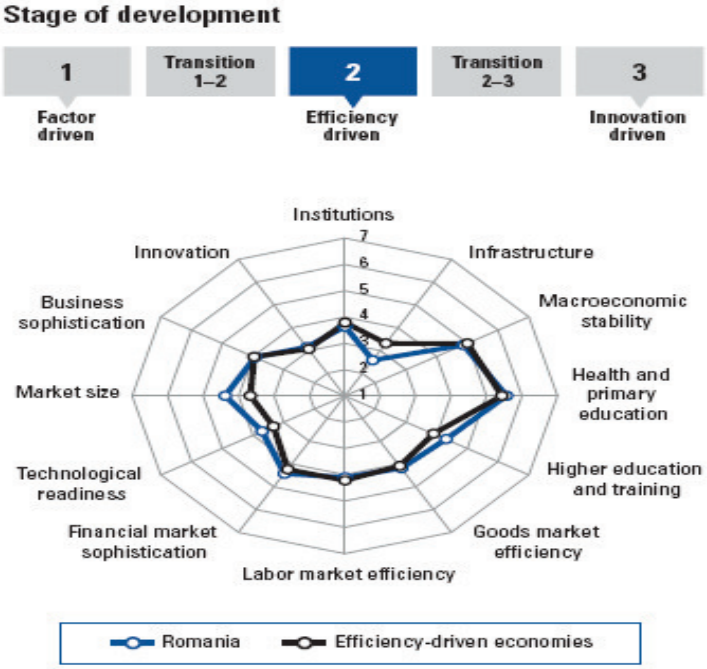
and economically sustainable development: it jeopardizes variety and selection and reduces innovativeness and competitiveness.

1. Labour market – one of the most important determinants of competitiveness

Economists asked themselves for many years what determines the wealth of nations. In fact, today's three buzzwords are globalization, technological progress and competitiveness.[253] Any analysis of the current economic situation starts with reference to the first, and takes the latter two as policy-making variables. In time the concepts evolved and they spoke about growth determinants and then about competitiveness ones. According to World Economic Forum there are twelve pillars which drive competitiveness, being each of them very important (Figure 1). [254]
In the below part I present aspects that concern labour market efficiency in Romania as being relevant for the subject of this paper.

In Romania, efforts of adjusting the political, economic, social and legislative systems emerged into a buoyant and dynamic economic environment after 2000. The efficiency and flexibility of the labour market are critical for ensuring that workers are allocated to their most efficient use in the economy, and provided with incentives to give their best effort in their jobs. With all this known considerations that we tried to respect, still, with very few exceptions, the international classifications of the prosperity driving forces' performance push Romania to the European periphery. Labour markets must therefore have the flexibility to shift workers from one economic activity to another rapidly and at low cost, and to allow for wage fluctuations without much social disruption. Efficient labour markets must also ensure a clear relationship between worker incentives and their efforts, as well as the best use of available talent.

Figure 1 - Stage of development in Romania and the twelve pillars of competitiveness



Source: Porter M. E. and Schwab K., *Global Competitiveness Report*, World Economic Forum, 2008.

253 Felipe J., A note on Competitiveness, ULCs and Growth: Is "Kaldor's paradox" a Figment of Interpretation?, CAMA Working Paper Series, 2005.

254 Porter M. E. and Schwab K., ibidem.

2. Methodological aspects of emphasizing competitiveness through ULC

In Romania, in the present, competitiveness still remains an essential parameter of Romanian economy capacity to face rivals pressures on European unique market.

Competitiveness is mainly analyzed through correlation from salaries and labour productivity. The concept of a *competitiveness index* has been an attractive and useful one and since 1979 the World Economic Forum began publishing an annual *Global Competitiveness Report.* Its methodology went on changing, evolving and improving from year to year, bringing in marginal improvements as it went along. The *Global Competitiveness Report* computes two sets of competitiveness indices: the growth competitiveness index (GCI) developed by Jeffrey D. Sachs of Columbia University and the business competitiveness index (BCI) developed by Michael Porter of Harvard University. The two indexes are based on hard data compiled by the World Economic Forum in its annual Executive Opinion Survey. One improvement that was brought about in 2003 and 2004 was increasing the number of country coverage from 80 to 102.

Quantification of national-level competitiveness with the help of above mentioned variables is not a simple and straightforward exercise. There are several problems with the computations of labour productivity, real effective exchange rate and ULC. For one, reliable data series on wages and productivity for constructing ULCs are difficult to come by *a fortiori* in the developing economies. Second, for making inter-country comparisons of ULCs one needs to translate the costs in individual countries into a common currency, which poses problems. Third, rise in ULC in an economy should lead to a logical decline in the competitiveness in the global market place, but empirical evidence paradoxically shows that market share of exports and their relative unit costs or prices of exports from industrial economies tended to move together. This is called the Kaldor paradox and was long analysed by Fagerberg in his papers. Fourth, the non-price factors play a significant role. It is possible for the real effective exchange rate or ULC to rise in tandem with strong economic performance. If firms in a country become more successful in terms of non-price competitiveness because they are innovative, flexible, produce high-quality goods, then the real effective exchange rate would logically strengthen.

Competitiveness may be analysed through ULC and real effective exchange rate. ULC become one of the most important indicators of evaluating the progress for achieving the objectives og Lisbon Strategy and in the same time one of the indicators forecasted by European Commission for all members states.

From this point of view there are two methodological and analytical approaches: on short term and on long term. The most common is periodic analysis of competitiveness (monthly and trimestrial). Because statistic data are not always available this type of analysis only deals with industrial activity and considers only the wages.

At national level (annually), the system of national accounts makes possible a more correct evaluation of the ULC for entire economy, by taking into consideration all the ULC. This kind of approach it is necessary especially having the situation of economies based more and more on services.

ULC compares the rise of all costs related to labour force with the rise of labour productivity. Standard indicator that is included in structural indicators system is calculated as a ratio between nominal wage rate (e.g. euros per worker) to labour productivity, the latter being defined as the quantity of output produced per worker (e.g. number of products per worker), that is:

$$ulc^{Q} = w_n : \frac{Q}{L} \qquad (1)$$

where w_n is the nominal wage rate, Q is the output (often gross domestic product when it is analysed national situation) and L is number of workers meaning employment. The classic argumentation is that the lower the ULC the more competitive the economy is, as we can observe

in (1), so ULCs are an important variable for policy-making. But in time this economists revised this theory, by concluding that the popular view of growth in ULCs determining competitiveness is at best too simplified, because the quantity of output, Q , must be proxied by deflated value added , as it is showen in (2):

$$ulc = \frac{w_n}{(VA_n / P) / L} = (\frac{w_n L}{VA_n})P \quad (2)$$

where VA_n is nominal value added and P is the output deflator. [255]

An important implication of this short discussion is that calculating correctly ULC is a difficult task that requires good and comparable statistics across countries. Often we are tempt to be sloppy in calculating ULC taking two series of wages rates and labour productivity and divide them without checking if they are, at least, consistent with each other.

3. How to maintain competitiveness

How does a country can maintain low ULC in order to be competitive it is a problem that may be discussed looking and analyzing the components of formula (2).

A first option is by keeping nominal wages W_n low. Wages are part of gross added value and comprise total wages in cash or nature, that an employer pay for employees as a cost of labour done in a certain period of time and also the contribution of employer for social ensurance. Keeping nominal wages low can be made when in a country there is a surplus labour force but this is not a good long-term strategy.

A second option for being competitive is the most wanted one by countries, is that of increasing labour productivity VA / L where $VA = VA_n / P$. Labour productivity is also the ratio between gross domestic product and number of occupied population. For having a good comparison between the countries there are applied the same definitions and concepts established by European Union. Comparison problems between the countries may appear as a consequance of diferent structures and structural occupational changes (part time employment, labour opportunities on short time).

The third possibility is through nominal depreciations of the exchange rate. At the firm level nothing can be done in this area. At the national level, however, authorities can manipulate their exchange rates and intervene in the foreign exchange market. Again, the literature argues that this is not a desirable long-run strategy.

For all practical purposes, countries try to keep down ULCs through a combination of all these mechanisms. Nominal wages and labour productivity tend to move together since the latter is the most important determinant of the former; the question is which one does it faster. In this context, the key concern is how gains in labour productivity are passed on to wages in the labour-capital bargaining process.

4. Analysis of Romanian competitiveness described by ULC

The evaluation in real terms of wages induce aproximation because in the lack of a index price statistic determined, it is used by convention, another deflator. That is why the European Commission has chose to use gross domestic product in nominal and real terms. Function of evaluation mode of labour productivity - meaning based on nominal value of gross domestic product or on real real effective exchange rate - there are two indicators that explain ULC:

255 Fagerberg J., Technology and Competitiveness, Oxford Review of Economic Policy, vol. 12, no. 3, 1996, pp.39-51.

-nominal ULC, when wage for an employee is divided to real gross domestic product value on an occupied person; -real ULC, when wage for an employee is divided to nominal gross domestic product value on an occupied person. In Romania the second indicator is more used, because we have differences in the price categories and this second indicator is more real.
For seeing how these indicators vary in time, an analysis of Romanian ULC is presented bellow. From the nominal ULC perspective, we observe a decline until 2004, which is a good trend for being competitive and in accordance with European Union. In 2005 there is an increase but then the year 2006 brings again Romania on the trend that could bring its the competitiveness, with a ULC annual growth rate of 6.8 %. OECD annual nominal ULCs are calculated as the quotient of total labour costs and real output. Time series are presented in percentage form where the base year of real output is 2005 (table 1).

Table 1 – Romanian nominal ULCs, total economy, annual growth rate

Year	2000	2001	2002	2003	2004	2005	2006
ULC % annual growth rate	70.8	34.0	21.3	18.8	4.1	22.8	6.8

Source: OECD Statistical Database portal, http://stats.oecd.org

If in nominal terms, ULC, situated on a declining trend, still keeps its high value because of higher price indexes, in real terms competitiveness earnings come closer to the EU 24 level, surpassing countries like France and Italy.[256] Variation in productivity caused by cyclical factors, or one off changes in the headline rate, should not cause an unsustainable shift in wage growth. In addition, relative wage developments that reflect local or sectoral labour market conditions help adaptability and counteract regional disparities. In this area, when assessing how countries fare and have made progress, it is necessary to examine wages and productivity developments, i.e. what this implies in terms of nominal ULCs and to assess whether the latter are in line with price stability and competitiveness. It is also useful to look at real ULCs (RULC) and how these relate to labour market developments. Moreover, to the extent that regional unemployment is a serious problem, wage developments and measures that improve the adaptability to local conditions is relevant. Overall, the absence of wage pressure in the euro area and EU27 during the economic rebound has been a positive feature over the last few years. Wage moderation in the euro area and EU27 as seen in nominal and real ULCs has generally continued to support price stability over the 2005-2007, despite a tightening labour market and the closing of output gaps.[257]
The annual labour income share is calculated for Romania as total labour costs divided by nominal output. In 2005 we observe again a discrepant value when speaking about year to year percentage changes: while these changes are negative for all other years in 2005 Romania registered a positive value of 9.1 % (table 2). The term labour income share is used as the total labour costs measure relates to compensation of employees adjusted for the self employed and thus essentially relates to labour income. The division of total labour costs by nominal output is sometimes also referred to as a real ULC - as it is equivalent to a deflated ULC where the deflator used is the gross domestic product implicit price deflator for the economic activity (i.e. sector) concerned. Labour income share (or real ULC), on total economy, index OECD use as base year, 2005=100.

256 Ghizdeanu I. and Tudorescu V., Unitar labor costs in Romania, Romanian Journal of economic Forecasting, vol. 1, 2007, pp 57-64.
257 Commission of the European Communities, Strategic report on the renewed Lisbon strategy for growth and jobs: launching the new cycle (2008-2010), 2007.

Table 2 – Romanian real ULCs, total economy and year on year changes

Year	2000	2001	2002	2003	2004	2005	2006
Real ULC	108.5	105.8	103.9	101.1	90.9	100.0	96.6
Year on year % changes	-	-2.7	-1.9	-2.8	-10.2	9.1	-3.4

Source: Data computed using OECD Statistical Database portal, http://stats.oecd.org

The difficulty of ULC forecast for the future period, based on a standard methodology comes mainly from statistical information of compensation of employees, data that are available with a two years gap towards the forecast period. Competitiveness is a multidimensional concept and in this context productivity exerts a crucial influence in determining growth and performance of an industry. There is increasing interest in analysing the competitiveness of the economy in general, from a sectoral perspective, reflecting the notion that the competitiveness of the economy at large cannot be properly understood without looking into the performance of individual sectors, and, what is even more important, at how these interrelate. An indicator to characterise the technology of sectors is capital intensity. Not only is it useful for descriptive purposes, but also as a determinant of industry conditions and behaviour. Modern economies are characterised by strong interrelation between industries; these interrelationships are central for the analysis of competitiveness. We must considering each industry as part of a complex set of interdependencies. Production is a combination of primary inputs (services of labour and capital), intermediate inputs (from other sectors of the economy), and technology. Input-output tables, which concern the web of intermediate inputs, encapsulate interrelations through which innovation and technology embedded in intermediate inputs diffuse throughout the economy. Input-output analysis shows that the competitiveness of the EU economy is not the result of merely aggregating individual industries' performance but the result of a complex network of relationships between them.

Conclusions

We used to say that Romania has important internal resources that could be considered factors of comparative advantage with real potential of transformation in factors of competitive advantage on European unique market. We must admit that these resources don't offer in present the guarantee of transforming them in factors of competitive advantages, even if theoretical they can be considered factors of comparative advantages. As a consequence we must pay attention to labour force market aspects that will occur in the future, taking into account that the economic and financial crisis bring with them problems like unemployment and migration of labour force.

In the short-run, given that labour shares vary very little, growth rates in ULCs, as well as in relative ULCs, are mostly (and simply) the result of changes in the price adjustment effect. If this is all the information the notions of nominal and real ULCs bring and convey, their calculation, monitoring and use becomes questionable in the traditional framework.

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