HIGHLIGHTS

Highlight 1. Wages, Productivity and International Price Competitiveness

Milojko Arsić[1]

Labour costs are one of the most important indicators of the international price competitiveness of a particular economy. The reason for this is that labour costs have a relatively high share in the price of products, and differences in wages between countries are relatively high. The direct contribution of labour costs to company costs is modest and usually ranges between 10-20%. However, labour costs are present in almost all other inputs used by the company: purchased goods, costs of materials and services, energy and interest costs, etc. The share of labour costs in GDP usually ranges between 50 and 70%, which is a better measure of the direct and indirect importance of labour costs in the economy. Another specific characteristic of labour costs is that their value varies from country to country significantly more than is the case with the prices of other inputs used in production, such as raw materials, energy, etc. The large differences in labour costs across countries are due to the fact that despite globalisation, there is still no global labour market. Unlike labour, other inputs are mostly freely traded on the global market, so differences in their prices across countries are moderate[2].

The most important factor determining the level of real wages in a country is the level of productivity, that is, the value of production per worker. The country's wages support its international competitiveness if they are aligned with productivity levels. If wages are higher than the level corresponding to productivity, it negatively affects its international price competitiveness and encourages the growth of external deficits. The impact of such wages on economic growth may be positive in the short term, due to stimulating domestic demand, but this is unlikely in small open economies. On the other hand, when wages are low relative to productivity, they boost exports but stifle domestic demand so that their impact on growth is not equivocal.

The average level of real wages in a country largely depends on the level of productivity in the tradable goods sector, which includes industry, agriculture and some types of services[3]. Productivity differences in the tradeable goods sector between countries are large, primarily due to differences in the value of capital per worker, or due to differences in the technical equipment available to workers. In addition, there are differences in the level of knowledge and skills of workers in different countries. As a consequence of these factors, differences in the level of wages in the tradeable goods sector between countries are significant. Wages in sectors of non-tradable goods, such as public administration, health, education, personal services, etc. are determined by the wages in the tradeable goods sector in a particular country. The differences in productivity in the non-tradeable goods sector between countries are smaller[4], but the differences in the level of wages of employees in the mentioned activities are large because they are determined in each country by wages in the tradable goods sector.

Just as productivity levels determine wage levels, so does the dynamic of productivity determine the dynamic of real wages[5]. This basically means that real wages and consumption of citizens over a longer period of time have a similar growth rate as the growth of production, that is, growth of value added per worker. In shorter periods of time, several years or even a decade, real wages may rise faster or slower than productivity. However, this is followed by a correction that aligns wage levels with productivity levels. For example, real wages in Serbia grew faster than productivity in the 2001-2008 period, and later in 2009-2015, wages grew more slowly than productivity. However, from 2015 until now, and this will almost certainly continue in the next year, real wages in Serbia are growing faster than productivity again.

Graph 1.

Productivity and real wages, Serbia, 2005g=100

The movement of real wages relative to productivity determines the movement of unit labour costs, that

---

1 University of Belgrade - Faculty of Economics.
2 Krugman, P. R. (1992)
3 Balassa (B.) (1964) and Samuelson (P.) (1964).

4 In the case of non-tradeable goods, there are differences in the quality of service between countries, while productivity is similar. Doctors, teachers, judges, hairdressers, lawyers, etc. in developed countries are not more productive than in underdeveloped countries, but they have significantly higher wages because they are formed at the country level under the dominant influence of productivity in the tradable goods sector.
5 ECORYS (2011)

is, the share of labour costs in the unit of production[6]. If unit labour costs in a country rise, then, all other conditions being equal, product prices rise, so that country becomes less price competitive compared to the rest of the world. Of course, changes in other important prices in the economy such as the exchange rate, interest rates or energy prices can amplify or mitigate this effect.
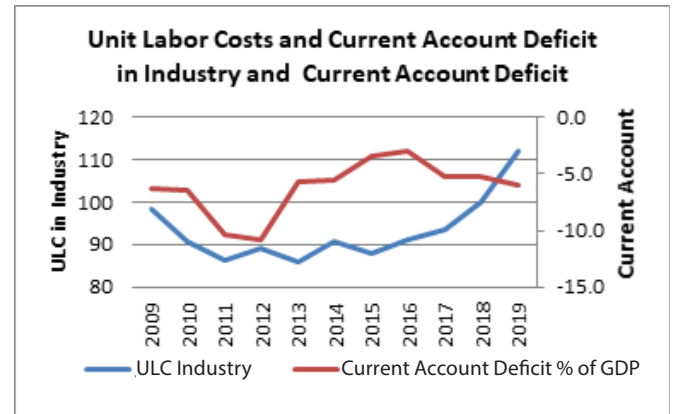
Unit labour costs in Serbia increased in the pre-crisis period, only to fall by about 15% between 2008 and 2015. After 2015, unit labour costs increased again significantly, rising by about 13% between 2015 and 2019. The negative effect of unit labour costs growth on foreign economic competitiveness over the last three years has been mitigated by a fall in interest rates and a fall in Serbian companies' spending on this[7]. In 2018 alone, companies' spending on interest was reduced by more than RSD 30 billion compared to the previous year, thus neutralising some of the increase in unit labour costs. However, in the future, we cannot count on a significant additional decline in interest rates in Serbia, and thus no possibility to offset the rise in unit labour costs in this way. While interest rates have mitigated the negative impact of unit labour costs on the price competitiveness of the Serbian economy over the last three years, strengthening the real value of the dinar has further impaired its competitiveness.

Graph 2
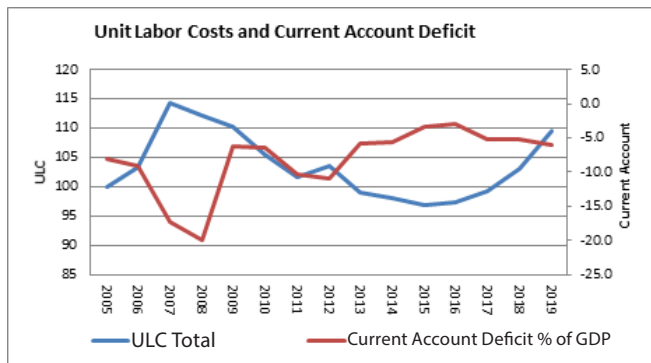
A similar trend is shown by unit labour costs in industry, which decreased by about 13% in the period 2008-2013, only to stagnate in the period 2013-2016, followed by a 23% increase in 2016-2019.

Graph 3

Graphs 2 and 3 show a relatively high alignment between the dynamic of unit labour costs and the current account deficit in Serbia. In periods when unit labour costs increased, or shortly thereafter, the current account deficit also increased. Contrary to that, in periods when unit labour costs were declining, or shortly thereafter, the current account deficit also declined. The negative effect of the increase in unit labour costs on international competitiveness is amplified if it is accompanied by an increase in the real value of the national currency, which has been the case in Serbia over the last three years.

Therefore, the important question is whether the decline in unit labour costs in the period 2008-2015 created a "reserve" that enables them to grow in the coming years without losing the price competitiveness of the Serbian economy. Related to this is the question of how such a reserve could be determined? Considering the impact of unit labour costs on the price competitiveness of the economy, we estimate that the best signal that such a reserve exists would be a surplus in Serbia's foreign trade and current account in 2015. The existence of such a surplus would imply that the deterioration of the price competitiveness and the external balance is possible, without adversely affecting the country's external position. A number of Central and Eastern European countries have had a surplus in their current account balance over the last two years, with strong wage growth over the past two years, but they can be said to have had a reserve for reducing price competitiveness and increasing foreign deficits.

However, in 2015, Serbia's foreign trade deficit was 8.1% of GDP, while the current account deficit was 3.4% of GDP. Therefore, we estimate that there was no reserve for the deterioration of price competitiveness and the growth of external deficits. The current account deficit of about 3% of GDP is probably at the upper end of long-term sustainability. Therefore, policies that encourage its further increases, such as increasing unit labour costs and strengthening the real value of the

---

6 Turner, P. and Van t Dack, J (1993)

7 The decline in spending on interest, similar to the strengthening of the dinar, caused the rise of unit labour costs not to translate into the rise in prices in Serbia. In the future, it cannot be expected that interest rates will further decrease significantly, or that the dinar will actually strengthen faster than the productivity gap in Serbia and the region.

dinar, move Serbia's economy further away from the macroeconomic balance, thus undermining the long-term economic growth.

Literature

Balassa (B.) (1964) "The purchasing power parity: A reappraisal", *Journal of Political Economy*, vol 72, issue 6, pp. 584-596;

ECORYS (2011)" *Study on the cost competitiveness of European industry in the globalisation era – empirical evidence on the basis of relative unit labour costs (ULC) at sectoral level",*

Krugman, P. R. (1992) "*Currencies and Crises*", Cambridge, Mass.: The MIT Press.

Samuelson (P.) (1964) "Theoretical notes on trade problems", *The Review of Economic and Statistics*, vol 46, No. 2.

Turner, P. and Van t Dack, J (1993) 'Measuring International Price and Cost Competitiveness', *BIS Economic Papers* No. 39, Bank for International Settlements