THE LABOUR PRODUCTIVITY-AN IMPORTANT CRITERION OF REAL CONVERGENCE IN THE PROCESS OF ADOPTING THE EURO CURRENCY
A CASE STUDY ON ROMANIA'S LABOUR MARKET

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Abstract

In the context of a new deadline for the euro adoption, 2024, the purpose of this paper is to highlight how important is the labour productivity as a criterion of real convergence. Unlike the well-defined nominal convergence criteria, there are some indicators such as GDP/capita, the productivity and the cost of labour, the openness of the economy that best define how close to the rest of the states of the European Union and the Euro-zone is the economy of a country in terms of the standard of living, the competitiveness and the efficiency of the economy as a whole.

Key words: *Euro-zone, nominal and real convergence criteria, the labour productivity, euro currency*

JEL classification: *E52, E50, J01, J24*

1. Introduction

After two deadlines missed until now for the adoption of the euro (2015 and 2019), Romania is facing a new milestone a euro currency switch in 2024. Even though 2024 is not an assumed timeframe for this change by the current Romanian Government, there are some new measures taken regarding this matter. In December 2018 the issue of adopting the euro currency in Romania was again "put on the table" by two documents released by the Government: National Plan for Euro Adoption and an Underlying Report of the National Plan. The "plan" defines five strategic objectives to be met until 2024 but

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unfortunately, the document doesn't give a clue about how and when these objectives will be achieved. In this context, the following questions arise: how prepared is Romania for single currency adoption? Which are those elements that Romania performs? Which are the current threats of the Romanian economy?

According to the Maastricht treaty a country prepared for the euro currency must meet a set of well-defined criteria (nominal convergence): price stability, sound and sustainable public finances, durability of convergence and exchange rate stability, all of them being set either in relation to the best performing countries in the European Union, or by having already set a threshold considered comfortable. In the last Convergence Report issued by the European Commission in May 2018, Romania appears with only one criterion fulfilled from five: general government debt with 35.3% of GDP (the threshold being 60 of GDP). For the existence and support of these criteria in the long term, there are some elements that best define the "well-being" of the economy: standard of living and the development of the economy as a whole. These elements are known as real convergence criteria and are measured through (Georgescu, 2010): the volume of foreign trade, the structure of national economy sectors (% of GDP), the openness of the economy, GDP/capita, the cost and productivity of labour. The focus of this paper will be on the last criterion the labour productivity and especially on the following topics: labour market flexibility, unit labour cost, wage inequality, the structure of the labour market, disparities between the increase of the net wage and the increase of the productivity but also the dimensions of the undeclared work.

2. Literature review

From Toma D'Aquino (in his fundamental work Summa Theologica 1266-1273), until today, the "labour matter" was an important factor in all the studies that tried to explain the differences in living standards between countries. In his studies, William Petty (1623-1687) was the first economist who formulated the idea that the value of the goods is given by "the working time spent on producing the respective goods". Petty has explained that there is a directly proportional relationship between the amount of the working time spent to produce goods and their value and an inversely proportional ratio between the productivity of labour and the price of a unit (Popescu, 2009).

One of the most important economists of all times, Adam Smith, has developed in his book An inquiry into the nature and causes of the wealth of nations (1776) for the first time the idea of " Homo oeconomicus" and brings forward the fact that work is the source of the entire wealth of society but also define the terms such as labour productivity (work that adds value to the objects). Adam Smith defines three factors on which the wealth of a nation depends upon: nature, productive labour and capital (Popescu, 2009).

David Ricardo (in his book On the Principles of Political Economy and Taxation, 1817) has challenged the idea of his predecessor Adam Smith through which the compensation (the wage) received for the work done would increase the value of the produced good, so in its acceptance work is the cause of value and value is the cause of income (Popescu, 2009). Also, Ricardo has developed the concept of comparative advantage (known as the Ricardian model) in which the international differences in the productivity of labour defines the international trade.

Das Kapital (1867) of Karl Marx defines three conditions for a good to become merchandise: it is useful, goes through a process of sale-purchase and is the result of a work process (Marx, 1867).

Mankiw (2011) trying to answer the question "what explains the differences in living standards among countries", defines the productivity such as: "the amount of goods and services produced from each unit of labour input". In Mankiw acceptance in the nations where workers can produce a large quantity of goods and services per unit of time, most people enjoy a high standard of living; in nations where workers are less productive, most people endure a poorer existence. Similarly, the growth rate of a nation's productivity determines the growth rate of its average income (Mankiw, 2011).

3. The labour productivity- a case study on Romania's economy

The labour market in Romania has faced significant changes in the last thirty years. Some of the most important events in the last years were:

- joining the EU community in 2007 and by that the process of globalization was accelerated;
- the international economic crisis from 2008/2009 => decrease of GDP/capita, increase the unemployment rate in the post-crisis period with a maximum value reached of 7.9% in 2009.
- internal and international political and economic instabilities => a slowdown in economic growth, decreased appetite for the Romanian market of foreign investors, depreciation of the national currency;
- major institutional and legislation reforms in all the economy structures => the uncontrolled increase of wages in the public sector but also of the pensions without having an efficient system of collecting taxes on

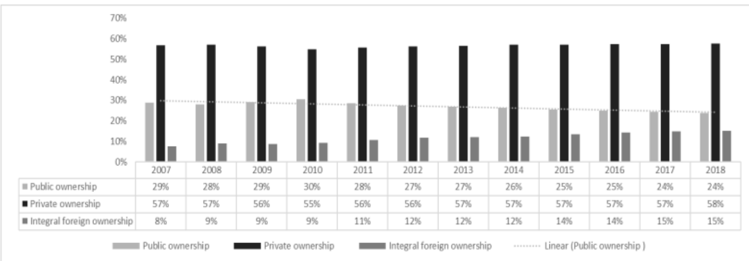
the state budget, tax changes for both the employee and the employer, laws designed to answer a short term need without pursuing long term benefits (like GEO 114 and in this context the changes to private pensions such as the possibility to withdraw the contribution after 5 years).

All of these changes have put, once more, Romania's economy and especially the labour market facing new vulnerabilities (Uzlau, 2017): massive emigration with impact on the labour market structure (number and age structure of employed population), a demographic crisis with an aging population, poverty (Romania still has the highest poverty pole in the EU in one of the country's regions), an increased school dropout and high disparities between wages in public and private sector.

3.1 The structure and flexibility of the labour market

In the last eleven years, the most important three employers are the private companies (with fully Romanian share capital), the public system and the private companies with foreign ownership (see figure 1). As Romania's economy became more and more open after joining the EU but also more attractive for the investors, the employment structure has known some changes: in 2018 the average number of employees was ~5 Million with ~ 183.000 person higher than 2007, 15% of them being employed in companies with foreign capital vs 8% eleven years ago. The public sector has lost ~ 197.000 employees in the last years and five percentage points as a share in total structure, so the private sector is the engine of the Romanian economy, and includes most of the employed workforce

Figure 1: Average number of employees by ownership type (% in average number of employees)



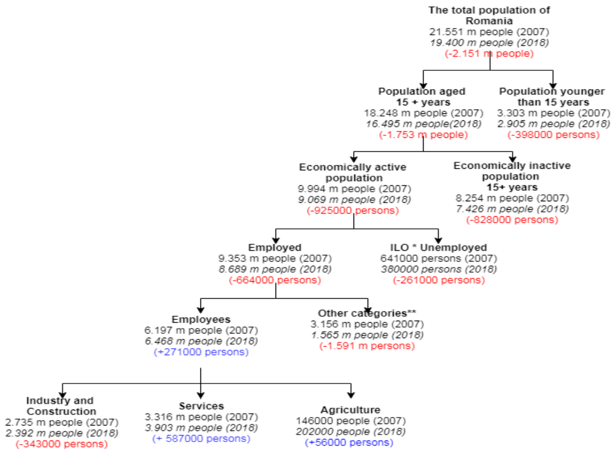
Source: Author representation based on NIS (National Institute of Statistics) data FOM104B

According to NIS data (Tempo online-Statistical data), at the end of 2018, the actual number of employees (people with labour contract on a determinate or indefinite period of time and with full or part time programme, the military staff and similar are excluded) was 5.4 Million persons (this being also the maximum value registered in the last eleven years) with 63.000 persons higher than the number of employees registered in 2017 and with 263.305 higher than in 2007.

If we take a closer look at the evolution of major categories of population in 2018 vs. 2007 (figure 2) we can draw the following conclusions:

- Romania has lost in the last eleven years 2.1 Million people and approximative 925.000 economically active people.
- The number of people younger than 15 years has decreased with 12 percentage points. If we correlate this fact with a declining birth rate (in 2018 Romania has recorded a historical minimum of the last 50 years in terms of the number of children born) and an increased life expectancy (75 years in 2017 vs 72.5 years in 2007) the outcome is an ageing population and significant changes in the labour market (an increased burden on those of working age to provide for the social expenditure required by the aging population);
- From a total of 7.4 Million economically inactive population (students, retired people, household, persons maintained by other persons or state, or with other types of income like rents, interest, etc.) 59% are retired people and socially assisted persons (22.5% from total population of Romania), 18% are students and 17% are households;

Figure 2: Comparative evolution of major categories of the population by participation in economic activity 2007 vs 2018



Source: Author representation based on NIS data [2][3]

*ILO (International Labour Organization)
**Other categories: owners, self-employed workers, unpaid family workers and members of an agricultural company or non-agricultural cooperative.

- Employment rate (defined as a measure of which available labour resources -people available to work- are being used, calculated as the ratio of the employed to the working age population) (OECD definition) has increased with 5.3 percentage points in 2018 vs 2007 from 63.4% to 68.7% , the lowest rate in 2018 being registered in Giurgiu County with 47.6% (0.9 percentage points lower than the than the worst performing rate recorded in 2007 by Bacau County) and the highest in Bucharest with 97.2 (vs 81.1% in 2007). Note that in 2018 the employment rate in EU-28 was 68.6%;
- The process of privatizing state-owned companies and adapting their behaviour to the new requirements imposed by the competitive economy have led, during the last decades, to changes in the distribution of employees by the activities of the national economy so industry and construction are those sectors of the economy with the largest decrease in the number of employees ~343.000 people influenced both the structural changes of the economy (from industry to services) and the massive migration of labour force to the countries of the European Union.

Another important fact to be mentioned is that Romania has one of the lower unemployment rates in EU 3.8% as of August 2019 (vs. 7% in 2007) with 2.4 percentage points smaller vs. EU-28 and 3.6 percentage points vs. Euro area, meanwhile the highest value being registered by Greece with 17% (Eurostat information).

The last financial crisis has led to the most significant rise in unemployment rates for all the countries of Europe, as a consequence, each country reacted with different policies designed to diminish the negative effects felt in their national economy. The speed with which the labour market reacts to the external shocks is also known in the literature as “labour market flexibility” best defined from four perspectives (Eamets, Paas, 2006): external job turnover (mobility of workers between employers), working time flexibility (employer’s ability to modify the number of working hours without changing the number of employees), internal labour turnover (employer’s ability to move their employees from one task or department to another, or to change the content of their work) and the wage flexibility. For a country where for a long time job security was more important than the conditions in which it was carried out corroborated with the fact that labour market flexibility is strictly connected to labour market regulations and institutions, Romania is placed on 22nd place (out of 44 EU and OECD countries) at the employment flexibility index 2017 (which measure the flexibility of labour regulation through redundancy costs, working hours, hiring and redundancy rules) with an overall score of 63.9 (Denmark having the highest score with 96.9) (Lithuanian Free Market Institute, 2017).

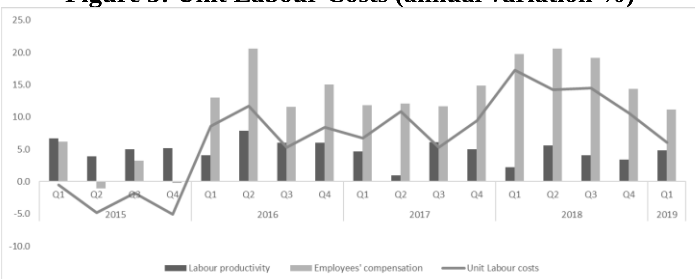
3.2 The unit labour cost and productivity. The wage inequality

The labour productivity represents one of the most important factors of economic growth alongside labour force and capital. The labour productivity is linked with wage evolution, so if the labour productivity does not follow the trend of wages the effect is an inflationary shock felt in the economy in terms of costs (increase of wages but keeping labour productivity at the same level will finally lead to higher prices) (Panis, 2015). The indicator used to measure the pressures on the labour market from the perspective of those mentioned above but also the competitiveness of the economy (countries with higher productivity rates or with a low level of unit labour costs are more competitive because their products are cheaper) is the “unit labour costs” (ULC- represent the cost of labour per unit of output) which is determined as the ratio of total wages (number of employees multiplied by average gross wage) and the volume of production; the formula is equivalent to the ratio of the average gross wage and labour productivity (see Equation 1) (NBR, Glossary). In 2018 the competitive position of Romania relative to their trading partners in the euro area (in terms of labour cost performance) has degreased with 4.7 percentage points vs 2017 this being the highest value in EU-28 which means that the Romanian trading position to its partners got worse in the last year (Eurostat, 2019).

Equation (1) ULC = $\frac{\frac{Employees' compensations}{Number\ of\ employees}}{\frac{Real\ GDP}{Total\ employed\ persons}}$ (Mertsina, Janes, 2012)

Taking into account the significant decrease in total population but also the difficulties encountered by employers in finding and maintaining the workforce, a new phenomenon has been identified in the last years: a higher increase of the employees' compensation without an actual increase in productivity (see Figure 3). In the period between 2007 and 2018, the average gross salary increased 3 times from 1.396 Ron to 4.357 Ron the compound annual growth rate being (CAGR) 9.95% while the labour productivity growth rate was 7.70%. The year 2015 was the only year in the last four in which the productivity growth rate was higher than that of the remuneration of employees with a negative UCL value of about 5% (Euro area had an UCL in 2018 of 1.4% and estimated value of 1% in 2019). Taking into account the negative impact of increased wage costs on the profit margins of companies, the effect on the economy was felt by a constant increase in inflation from a negative value of -0.43% in October 2016 to a maximum value as of 5.22% reached in April 2018 far above the 2.5% annual target set by the monetary policy of the National Bank.

Figure 3: Unit Labour Costs (annual variation %)

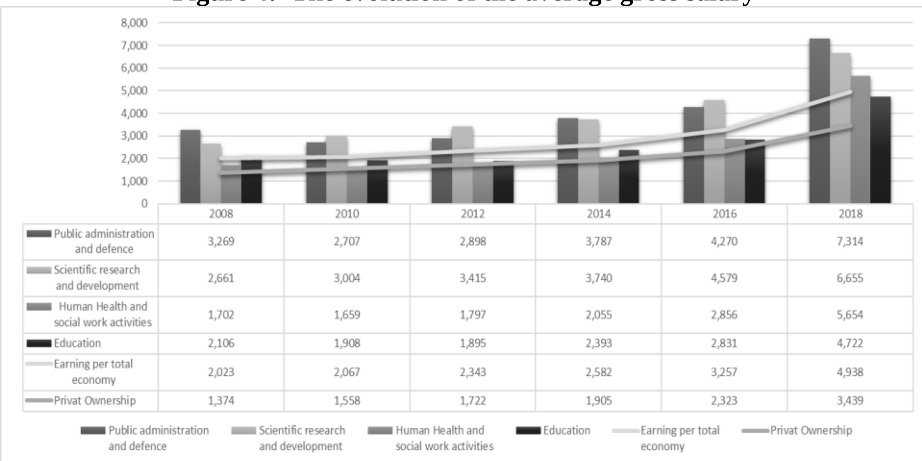


Source: Author representation based on NBR calculation; Charts' Data Series used in Inflation Reports August 2019 [1]

Given that the increase of the minimum wage is used as a political instrument without taking into account the consequences in the economy, the legislative changes aim to achieve short-term goals (see passing the contributions from employee to employer) or react as a corrective effect (setting a minimum remuneration threshold in the field of construction to encourage the return of the labour force to the country), Romania is jeopardizing its progress towards meeting the Maastricht convergence criteria. According with the last Convergence report (European Commission, 2018), Romania exceeded with 2 percentage points the threshold of the price stability criterion the average annual percentage change of HICP was 4.1% (the highest in Europe) in 2018. The only convergence criterion met in 2018 was the general government debt with 35.3% of GDP.

As a result of the bad wage policies adopted in recent years, the gap between gross earnings between public and private sector got deeper and deeper the consequence being a migration of the labour force to the state institutions. Only in the last three years the average gross nominal earnings in the public sector has increased by 71% while in the private sector only by 48% (below the average gross wage per economy that grew by 51%) all of that in the context that public institutions in Romania remain the most disorganized, bureaucratic, branched and undigitized in Europe.

Figure 4: The evolution of the average gross salary



	2008	2010	2012	2014	2016	2018
Public administration and defence	3,269	2,707	2,898	3,787	4,270	7,314
Scientific research and development	2,661	3,004	3,415	3,740	4,579	6,655
Human Health and social work activities	1,702	1,659	1,797	2,055	2,856	5,654
Education	2,106	1,908	1,895	2,393	2,831	4,722
Earning per total economy	2,023	2,067	2,343	2,582	3,257	4,938
Privat Ownership	1,374	1,558	1,722	1,905	2,323	3,439

Source: Author representation based on NIS data

The most worrying thing is that the wages in healthcare system and education remain below the level of those in administration, for the first time in the last ten years being higher even than those in research and development. As a consequence of increased public wages and pensions and the tax cuts made, the nominal and structural budget deficits are on an increasing path, causing Romania to diverge from the targets in its national fiscal framework (European Commission, 2018).

4. The dimensions of undeclared work in Romania and the "Envelope wages"

According to OECD there are two causes of undeclared work: high taxes, state corruption and burdensome regulations but also it is a result of inefficient regulation, combined with a lack of labour market intervention and social protection (OECD, 2014). As a definition, the undeclared work (also known as "black labour", "moonlighting" or "illegal work") represent "any paid activities that are lawful as regards their nature, but are not declared to the public authorities, taking into account the differences in the regulatory systems of the Member State" (European Commission, 2007). The "Envelope wages" is one of the most known characteristics of the undeclared work mostly as a way to avoid social insurance contribution payments, so the employee's salary has two components: the statutory minimum salary and the "envelope wage" (European Commission, 2016). The most affected sectors by this practice, in Romania, are: constructions, transportation, commerce and agriculture. In November 2017, the European Commission has released a study regarding the scale of the undeclared work in EU. According to this study, Romania is in the top three countries as follows:

- The UDW as a share in terms of labour input was 18.9% in 2013 (the last data available) while the EU average was 11.6%. The higher value being registered by Poland with 20.8%.
- The shadow economy as a share of GDP representing 28% in 2015, the second highest value in the EU after Bulgaria (30% of GDP).

The conclusion of the already mentioned study was: "lower levels of undeclared work are found in Member States where there are higher levels of GDP per capita, more modernised systems of government, higher levels of trust in authorities and lower levels of corruption, where social transfers are effective at reducing poverty, there are higher levels of public expenditure on labour market interventions to protect vulnerable groups, and where there is greater equality, lower levels of long-term unemployment, and net in-migration rather than out-migration" (European Commission, 2017)

5. Conclusions

Romania has become the third country in the world as a labour force deficit (after Japan and Taiwan), in this context the companies are "forced" to hire people without experience or qualifications, people who would not be the first option under normal conditions, giving up productivity and profit margin just to not block their activity. The vulnerabilities mentioned in this paper (migration, an aging population, mismatching the wages evolution with labour productivity) but also the material deprivation, the income distribution, disparities between regions and between urban and rural areas, the problem of school dropout are just some of the elements which slow down the process of convergence of Romania to the performing economies of Europe and make the process of adopting the euro a target increasingly difficult to reach.

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