



## *Risks of Colossal Wage Growth Policy Puzzle No.1\**

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### **Snapshot:**

- Wages largely depend on productivity and directly reflect an economy's income capacity.
- A prominent measure of wage growth is labour compensation per hour worked.
- Macroeconomic foundations including GDP growth, competitiveness and consolidated public finances as well as productivity are vital for a sustainable and "risk-free" wage growth.
- In 2018, Romania – one of the fastest growing economies in the EU – experienced a sizeable wage growth of 16.28%. Increase in labour productivity did not follow the pace of wage growth.

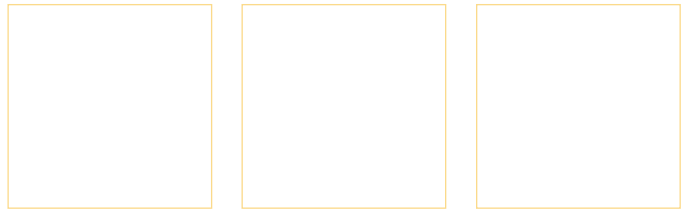
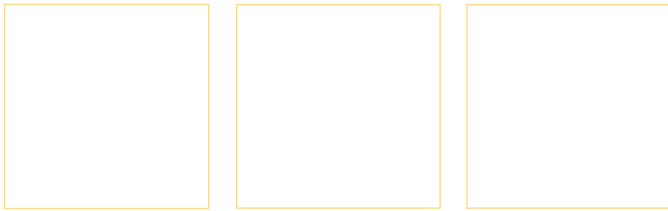
### **Systemic Foundations of the Puzzle**

Wages are a direct reflection of an economy's income capacity and living standard in general. They largely depend on workers' productivity, which in turn depends on structural fundamentals surrounding the development of human capital and investments (Brown and Taylor, 2005; Shambaugh et al., 2017).

A prominent measure of wage growth is labour compensation per hour worked. It measures compensation of employees (in national currency) divided by total hours worked; it sums gross wages/salaries and employer's social contributions. The indicator is expressed as an annual growth rate (OECD, 2020).

Wage growth is generally desirable in an economy. However, in order to be sustainable and yield positive side-effects, it needs structural underpinnings.

\* The 'GlobalStat Policy Puzzle' Series addresses an unusual data-related phenomenon – the puzzle – identified through data anomalies within a specific theme – the policy. It exemplifies the puzzle through a single case and highlights comparative elements where appropriate. The main goal of the analysis is to draw attention to a potential policy puzzle and to highlight why it should deserve analytical attention. The analysis serves as a pointer to further need for analysis. The main outcomes of the analysis are thus specific research recommendations on how to further unravel and examine the puzzle.

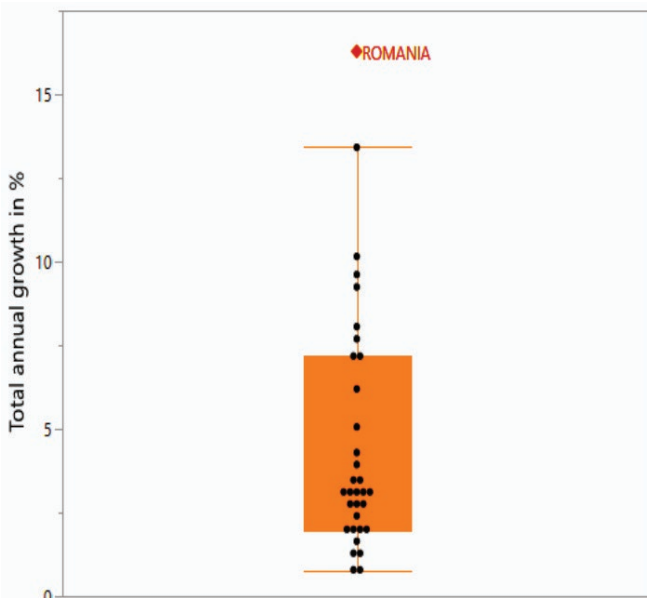


Macroeconomic fundamentals that are conducive for sustainable and “risk-free” wage growth include stable and export-based GDP growth, consolidated public finances, and, most importantly, increasing productivity of workers. It is important to note that national governments play a vital role in developing these fundamentals and in setting the priorities for macroeconomic policy.

The absence of or disequilibrium between the fundamentals may expose certain risks of sizeable wage growth. Potential risks include (persistent) trade deficits as the result of increased imports (at the expense of exports) due to higher domestic demand produced by the wage growth. This potentially diminishes the competitiveness of an economy. In case of disequilibrium between the fundamentals, the risks may especially be considerable when the wage growth is colossal. This is the main postulate of the policy puzzle in this analysis.

To give an empirical insight into the puzzle at hand we look at wage growth measured as labour compensation per hour worked in 2018. In the given year, the puzzle is best exemplified using the case of Romania: Among the 38 countries monitored by the OECD, Romania had by far the most sizable wage growth that amounted to 16.28% (see Figure 1).<sup>1</sup>

**Figure 1 - Distribution of labour compensation growth per hour worked in 2018 (or latest available)**



Source: adapted from OECD, 2020.

1. Alongside the boxplot that entails inter quartile range (IQR) method, z-scores standardisation was used to re-confirm Romania as the outlier. Romania’s compensation growth is 11.62 standard deviations from the mean. Four more countries namely Estonia, Russia, Poland and Bulgaria have z-score higher than

## Illustration of the Puzzle: Romania

Macroeconomic conditions in Romania are favourable to the occurrence of (colossal) wage growth.

Although Romania’s economy experienced a slowdown relative to 2017, its GDP still grew by 4.1% in 2018, which is one of the highest growth rates in the EU (World Bank, 2019; see Wang et al., 2016).

This growth was partially generated by increasing foreign direct investments (FDI). FDIs have highlighted Romania’s competitive advantages – large domestic market, industrial tradition, and low labour costs – and produced positive side effects including technology transfers, job creation and managerial skills (Carp, 2014; Nistor, 2014; Antonescu, 2015; Simionescu, 2017). Moreover, unemployment in 2018 (4.2%) reached the lowest level since 1997 (Eurostat, 2020).

In addition to its expansion, GDP should ideally be export-based to underpin a sustainable wage growth. Notwithstanding, some trends in the Romanian economy point to import- rather than export-intensive GDP growth. Specifically, Romania’s tenacious current account deficits (-4.4% in 2018, Eurostat, 2020) attest to this claim. From the long-run perspective that essentially captures the sustainability of wage growth, this deficit could negatively affect Romania’s competitiveness (see Enache, 2019).

As indicated above, wage growth depends on productivity and thus needs to be underpinned by it (see Simionescu, 2016). If productivity growth is lower than wage growth, the positive effects of the latter could be swiped away, exposing its risks.

The Romanian example demonstrates such an unfavourable trend. Average labour productivity in Romania has decreased from 8.5% (2000-2008) to 2.9% (2009-2018) which is the biggest drop in Central Europe (World Bank, 2019). Additionally, labour activity rate (29.5%) that tightly links to productivity stagnates and is one of the lowest in the EU (Wagner et al., 2019).

In sum, productivity lags behind the wage (and GDP) growth in the Romanian example. In comparison, Canada experienced the opposite situation. Between

+/-4 which is a rule of thumb requirement for outlier detection. However, only Romania is analysed as it was identified as the outlier through both z-scores and IQR method.



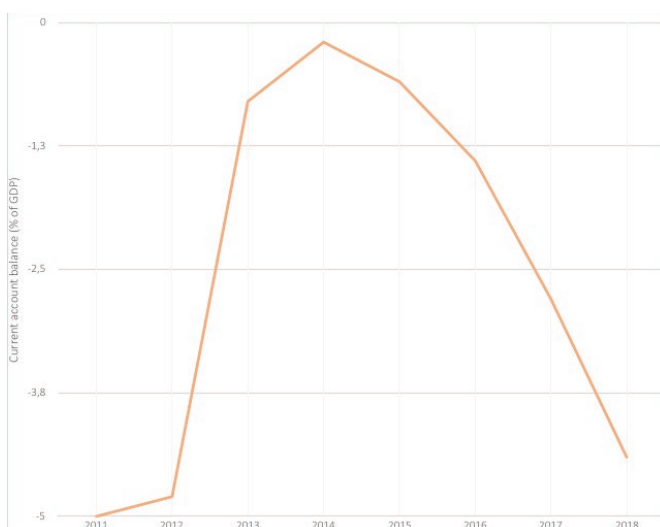
1980 and 2005 productivity rose by 37% while wages stagnated (Sharpe et al., 2008). Considering the above puzzle, Canada would (theoretically) then be less prone to risk of (eventual/potential) colossal wage growth.

Considering national governments' role in shaping the macroeconomic foundations of a country, political decision-making is relevant for a sustainable wage growth. Political action can result in both positive and potentially negative repercussions on (colossal) wage growth. The nature of wage increase policies in the Romanian example is seemingly more relatable to the latter.

In recent years, Romanian wages increased in both the public and private sector. Interestingly, the public sector "leads" the wage growth instead of its tradable and more competitive private counterpart (Enache, 2019).

Although wages in the public sector were cut in 2010, from 2015 onward they have grown significantly. In 2016, they increased by 10% and in 2017 by 16% which is four times the growth of labour productivity (Enache, 2019). Considering the size of the Romanian public sector (see Ștefănescu-Mihăilă, 2015), the increases put additional pressure on fiscal policy. In 2018, Romania's government deficit amounted to -3% of GDP, whereas its public debt (35%, Eurostat, 2020) is still below the European Stability and Growth Pact's (SGP) reference value of 60% of GDP. However, concerning its debt level, the country could be at risk of breaching the Pact until 2029 (see Wagner et al., 2019).

**Figure 2 - Romania's current account balance 2011-2018**



Source: adapted from Eurostat, 2020

The Romanian private sector also experienced wage growth partially due to spill-overs from the public sector. Wages increased by 15% year-over-year basis. The construction sector (48.5%), partially due to fiscal stimuli, and manufacturing (12.7%), due to minimum wage increase, experienced the highest growth at sectorial level (ING, 2019).

A significant increase of minimum wage (40%) from 2015 to 2017 (Enache, 2019) was also an important component of wage growth policy and contributed to its size.

## Main Take-Aways for Further Research

Economically desirable colossal wage growth bears potential (long-term) risks such as current account deficits and loss in competitiveness if it lacks supporting macroeconomic fundamentals. This shapes the policy puzzle addressed in the above analysis that focused on developments in countries monitored by OECD for research purposes in 2018. Romania is the exemplary case of the puzzle due to its relatively outstanding wage growth and active wage increase policy in the recent years.

The analysis leads to specific recommendations for further research on the policy puzzle related to colossal wage growth. The research recommendations could apply to alternative wage growth-related contexts and hence extend beyond the illustrative case of Romania.

### Recommendations for Further Analysis:

1. Dynamics between public and private sector should be explored especially concerning efficiency and effects on competitiveness.
2. Unravelling the role and the contribution of structural developments (education, research & development, labour market, economic emigration) in labour compensation growth is important.
3. Conditions for stable growth of labour productivity need to be further examined.
4. Long-term consequences of declining labour productivity including expansionary fiscal policy and shrinking of tax base need to be carefully addressed.
5. Effects of import-intensive economic growth on the competitiveness of the private sector and FDIs need to be closely monitored.



## References

- Antonescu, Daniela. 2015. 'Empirical analysis of foreign direct investments at NUTS 2 region, in European Union and Romania.' *MPRA Paper No 65140*. Online: <https://mpra.ub.uni-muenchen.de/65140/>.
- Brown, Sarah and Karl Taylor. 2005. 'Wage growth, human capital and financial investment.' *The Manchester School* 73(6): 686-708. Online: <https://doi.org/10.1111/j.1467-9957.2005.00472.x>.
- Enache, Georgeta Steluta. 2019. 'The economic and social situation in Romania.' *Study - European Economic and Social Committee*.
- Eurostat. 2020., Accessed 17 March 2020. <https://ec.europa.eu/eurostat/data/database>.
- ING. 2019. 'Wage growth in Romania still going strong.' *ING Snaps 8 October 2019*.
- Lenuta, Carp (Ceka), 2014. 'The Empirical Analysis Of The Relation Between Fdi, Exports And Economic Growth For Romania.' *CES Working Papers, Centre for European Studies, Alexandru Ioan Cuza University, vol. 6(1), pages 32-41, March*. Online: <https://ideas.repec.org/a/jes/wpaper/y2014v6i1p32-41.html>.
- Shambaugh, Jay, Nunn, Ryan, Liu, Patrick and Greg Nantz. 2017. 'Thirteen facts about wage growth.' *The Hamilton Project Brookings*.
- OECD (2020), Labour compensation per hour worked (indicator). doi: 10.1787/251ec2da-en (Accessed on 05 February 2020).
- Nistor, Paula. 2014. 'FDI and economic growth, the case of Romania.' *Procedia Economics and Finance* 15: 577-582. Online: [https://doi.org/10.1016/S2212-5671\(14\)00514-0](https://doi.org/10.1016/S2212-5671(14)00514-0).
- Sharpe, Andrew, Arsenault, Jean-Francois, and Peter Harrison. 2008. 'The Relationship between Labour Productivity and Real Wage Growth in Canada and OECD Countries.' *CSLS Research Report No. 2008-08*. Online: <https://ideas.repec.org/p/sls/resrep/0808.html>.
- Simionescu, M. 2016. 'Competitiveness and Economic Growth in Romanian Regions.' *Journal of Competitiveness* 8(4): 46-60. Doi: 10.7441/joc.2016.04.03.
- Simionescu, Mihaela., Lazanyi, Kornelia., Sopková, Gabriela, Dobeš, Kamil, & Balcerzak, Adam.P. 2017. 'Determinants of Economic Growth in V4 Countries and Romania.' *Journal of Competitiveness* 9(1): 103-116. Doi: 10.7441/JOC.2017.01.07.
- Ștefănescu-Mihăilă, Ramona Olivia. 2015. 'Social Investment, Economic Growth and Labor Market Performance: Case Study—Romania.' *Sustainability* 7: 2961-2979. Doi: 10.3390/su7032961.
- Wagner, Andrea, Stan, Lavinia, and Frank Bonker. 2019. 'Romania Report – Sustainable Governance Indicators 2019'. *Bertelsmann Stiftung*.
- Wang, Lingxiao, Peculea Dumitrescu, Adelina and Handou XU. 2016. 'The relationship between public expenditure and economic growth in Romania: Does it obey Wagner's or Keynes's law?'. *Theoretical and Applied Economics* 23(3): 41-52. Online: [https://ideas.repec.org/a/agr/journal/vxxiii2016i3\(608\)p41-52.html](https://ideas.repec.org/a/agr/journal/vxxiii2016i3(608)p41-52.html).
- World Bank. 2019. 'The World Bank in Romania Country Snapshot'. *World Bank Group*.

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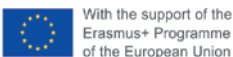
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