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**The Analysis of the Covid-19 Pandemic
Impact on Average Wages per Country**

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Abstract: The SARS-Cov-2 coronavirus has so far affected more than 136.4 million people worldwide after a year of pandemic, and the number of deaths is rapidly approaching to 3 million because of it. This unfortunate turn of events in our society is still causing damage worldwide, negatively changing not only countless lives that were lost and people who were affected by the disease, but also the whole economic and social levels due to the restriction of economic activities. The aim of the paper is to analyze the impact that the Covid-19 crisis has upon both unemployment and average wages in 2020 worldwide. In fact, both nominal and real average salaries were affected in the all countries.

Keywords: Covid-19; average wage; nominal average wage; real average wage

JEL Classification: E71

1. Introduction

By the beginning of June 2021, the Covid-19 pandemic had led to an official number of more than 136.4 million diseases worldwide, and more than 3 million deaths, according to <https://www.worldometers.info/coronavirus/>. This coronavirus continues to cause damage today, globally, economically and socially due to the restriction of economic activities, generating a new global economic context.

The current pandemic context has imposed numerous health restrictions and free movement of people during certain lock-down periods to protect life and reduce the number of infections and deaths. However, these restrictions have led to a reduction in activity or even the closure of certain companies, thus increasing the level of unemployment, but it has also affected the average nominal and real wages.

However, Groshen, E., Holzer, H.J., 2021 consider that in the USA “the pandemic-induced recession of 2020 began with notable employment losses in March, followed by extreme job losses in April. Then a recovery began in May - fast at first, then slower. During the months of November and December, employment rates were completely flat” (Groshen & Holzer, 2021).

Restrictions following the pandemic in early 2020 have led to a number of economic and social phenomena that have influenced the evolution of prices for certain goods and services, and therefore the CPI and the inflation rate. Thus, real wages, which were already affected by the reduction of nominal wages, were further affected by the increase in the inflation rate and the depreciation of the purchasing

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power of money. Nominal wages have been on a downward trend in most countries in the world as a result of companies trying to survive in the new global economic context. Thus, the employees of the companies, and especially those in small and medium enterprises, were affected either by the restriction of the activity and their temporary or permanent dismissal, or by the reduction of nominal salaries or even when they remained unchanged they also registered a reduction of real salaries as a result of rising inflation in most countries.

The economic crisis thus overlapped with the health crisis, generating a complex global pandemic context with implications for life, but also for the quality of life and standard of living.

2. The Evolution of the Global Inflation Rate as a Result of the Covid-19 Pandemic

In addition to the other economic aspects, the pandemic also strongly affected the inflation phenomenon in each state. HSBC chief economist Janet Henry says negative inflation is expected in the United States and most parts of the world¹ in the near future.

Thus, immediately after the onset of the pandemic, there was a drastic reduction in inflation because no country expected such a massive collapse of the national economy. This reduction in the inflation rate was also influenced by the fact that after the onset of the global pandemic, oil prices fell sharply as a result of national lock-downs and reduced activity in all areas.

The world economy is heading for its biggest recession in the last century, and deflation can be far more dangerous than inflation, as it leads to a series of negative chain events such as rising unemployment due to declining demand for goods and services, public or private expenditure. Therefore, the global recession triggered by the pandemic can lead to a deflationary spiral, and a reduction in inflation to zero or even negative values can turn the recession into a depression.

Based on statistical data provided by Eurostat, the evolution of the annual inflation rate in the Eurozone can be shown as in Figure 1.

¹ <https://www.theguardian.com/business/2020/may/05/inflation-collapses-world-coronavirus-pandemic-global-economy-business-great-depression-recession>

**Euro area annual inflation and its main components,
December 2011 - December 2021 (estimated)**

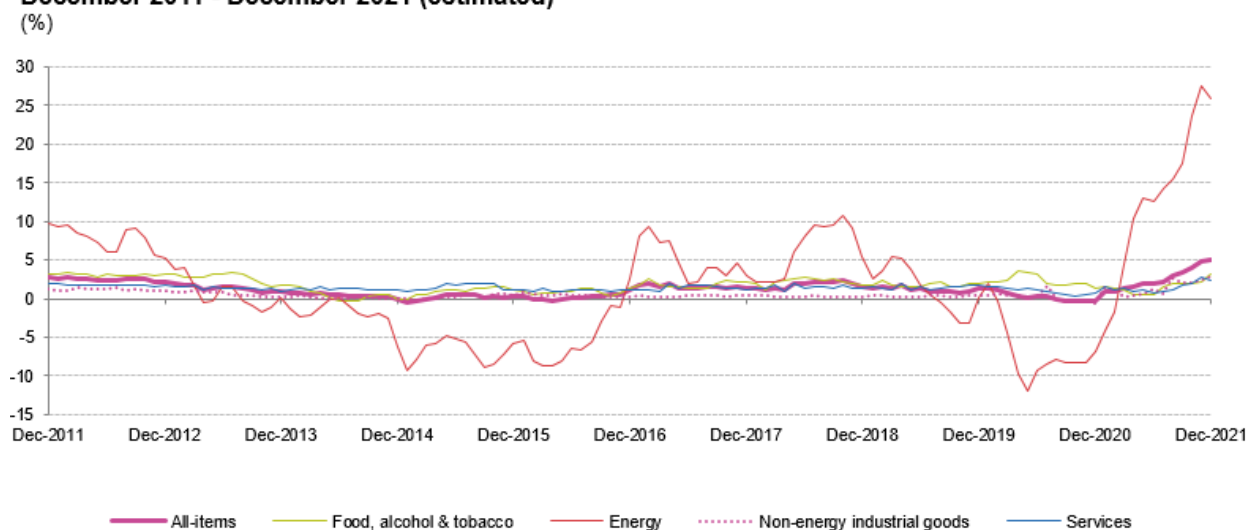


Figure 1. Evolution of the annual inflation rate in the Eurozone

Source: https://ec.europa.eu/eurostat/statistics-explained/images/1/1f/Euro_area_annual_inflation_and_its_main_components%2C_December_2011_-_December_2021_%28estimated%29.png

Analyzing the graph shown in Figure 1, it can be seen that the inflation rate in the Eurozone fell sharply to zero in 2020 compared to 2019, and the energy collapsed to values lower than -10%. There were only two exceptions that had a positive value for the inflation rate, namely services, but with low values, a little above zero, and with slightly higher values for food, drinks and cigarettes.

However, based on the estimates made for 2021, it is found that, fortunately, the inflation rate will register positive values for all its components, and for energy an increase is forecast greater than the collapse registered in 2020, respectively of over 25%. Thus, according to these estimates made by Eurostat, there were premises for the global recession triggered by the Covid-19 pandemic not to turn into depression.

3. Nominal Wages and Real Wages in a Pandemic Context

The global economic effects of the pandemic continue to negatively and difficult to predict the economies of many countries. Many companies have had to close down temporarily or permanently and lay off their employees. This pandemic has generated a global health crisis, but also a particularly serious economic and social one. In addition to technical or long-term unemployment, or a reduction in nominal wages, people are also facing an increase in commodity prices, which affects their purchasing power and, implicitly, their real wages and living standards.

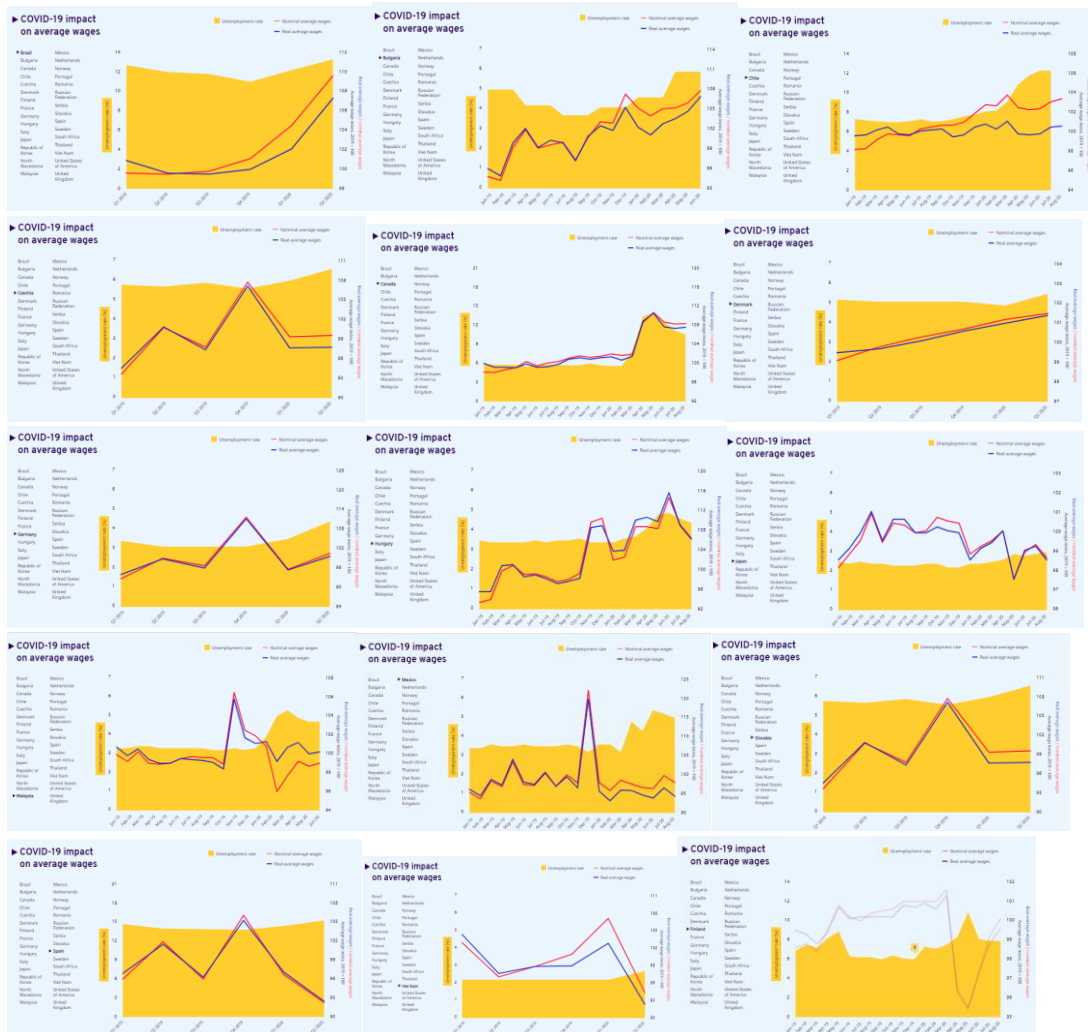
During the pandemic lock-down period when there was not much information about this coronavirus, when there was no vaccine against it and no tested treatment, the restrictions were particularly severe, and cities that were once full of tourists and of a hellish traffic, they became deserted, and most of the economic activities stopped and then opened in the online environment. Thus, those countries specialized in the field of tourism, whose population worked mainly in the field of HORECA, faced an unprecedented humanitarian crisis.

Statistical data published by ILOSTAT, the International Labor Organization (ILO - <https://www.ilo.org>, <https://ilostat.ilo.org/>), show that more than 40 countries have decided to grant “temporary wages subsidies” to support employees and to counteract the effects of the pandemic crisis. These temporary paychecks were intended to support companies in this time of crisis, to avoid mass layoffs, and to keep their skilled workers. Thus, employees will continue to receive at least a percentage of their salaries.

The pandemic has affected both the unemployment rate and the average nominal and real wages in 2020 worldwide, according to the World Wage Report 2020-21 of the International Labor Organization (<https://www.ilo.org/infostories/Campaigns/Wages/globalwagereport#changes/changes-2020>).

Analyzing and centralizing the data published by the ILO on the evolution of the unemployment rate and the average nominal and real salary, it is found that they can be divided into three broad categories, namely:

Countries where the unemployment rate in 2020 was higher than in 2019 - most countries, such as: Brazil, Bulgaria, Canada, Czech Republic, Chile, Denmark, Finland, Germany, Hungary, Japan, Korea, Mexico, Malaysia , North Macedonia, Netherlands, Norway, Romania, Russian Federation, Slovakia, Spain, Sweden, Thailand, UK, USA, Vietnam (see Figure 2)



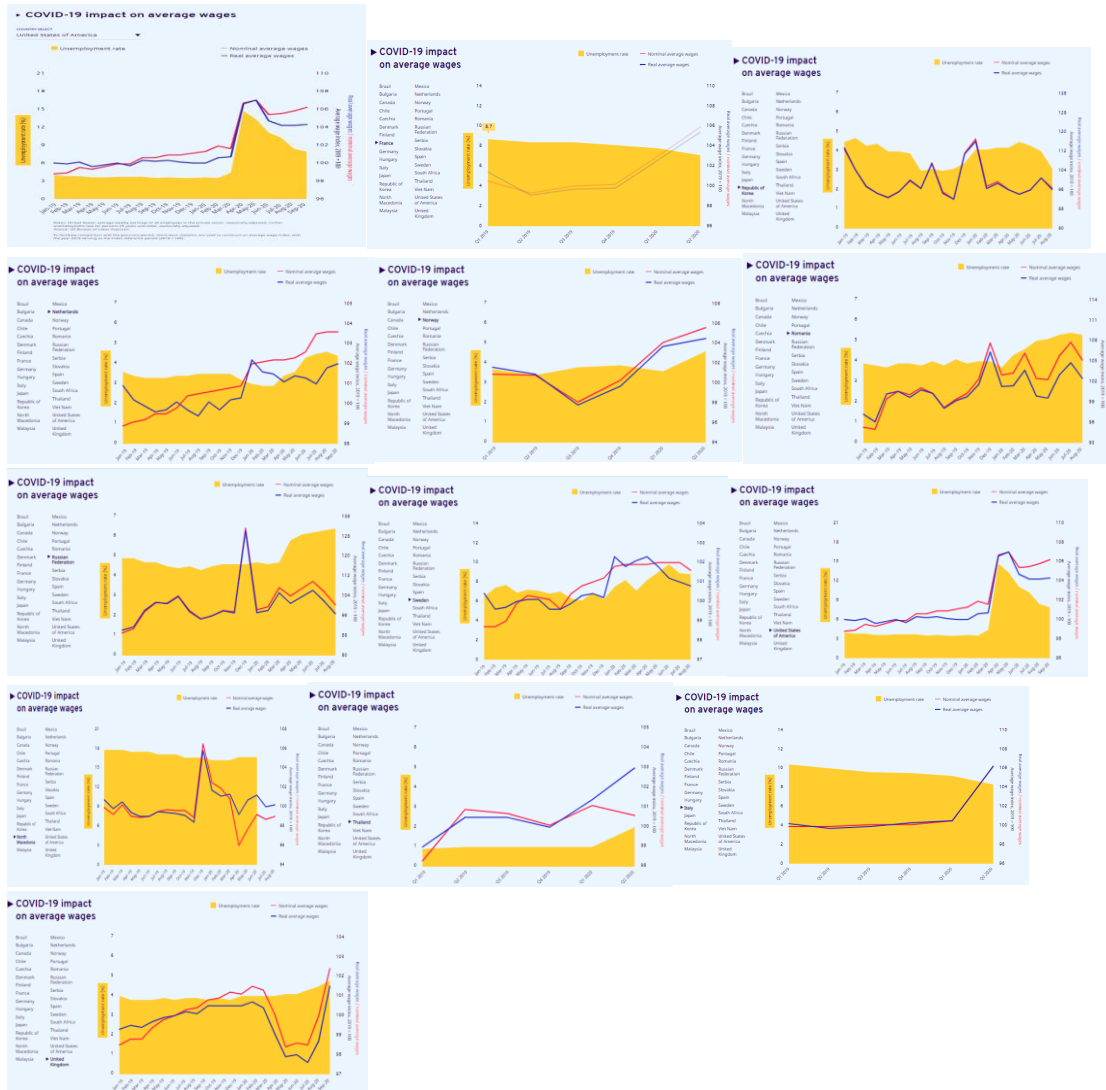
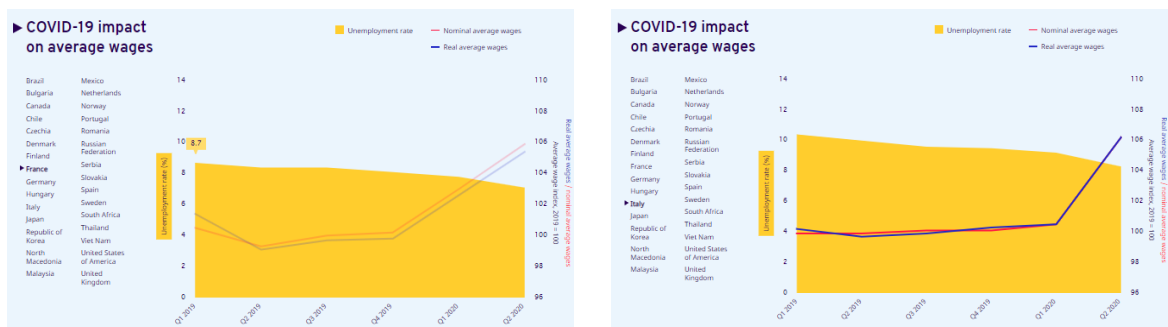


Figure 2. Countries where the unemployment rate in 2020 was higher than in 2019

Source: Author processing according to <https://www.ilo.org/infostories/Campaigns/Wages/globalwagereport#changes/changes-2020>

Countries where the unemployment rate in 2020 was lower or relatively constant than in 2019 - France, Italy, Portugal, Serbia and South Africa.



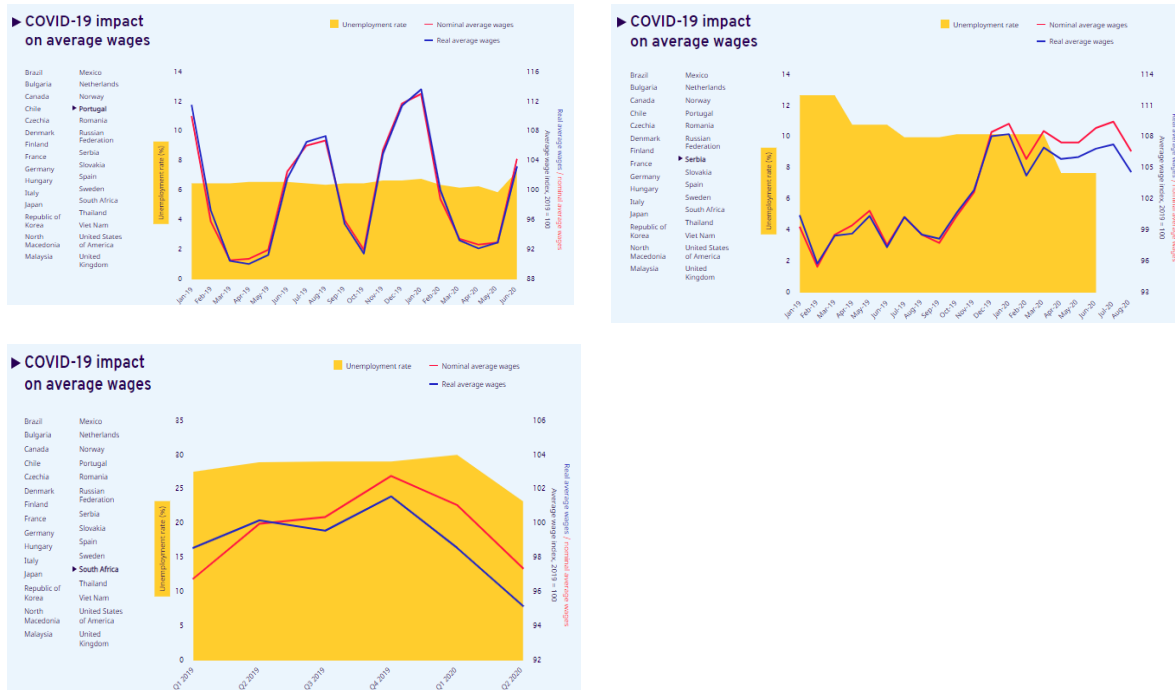


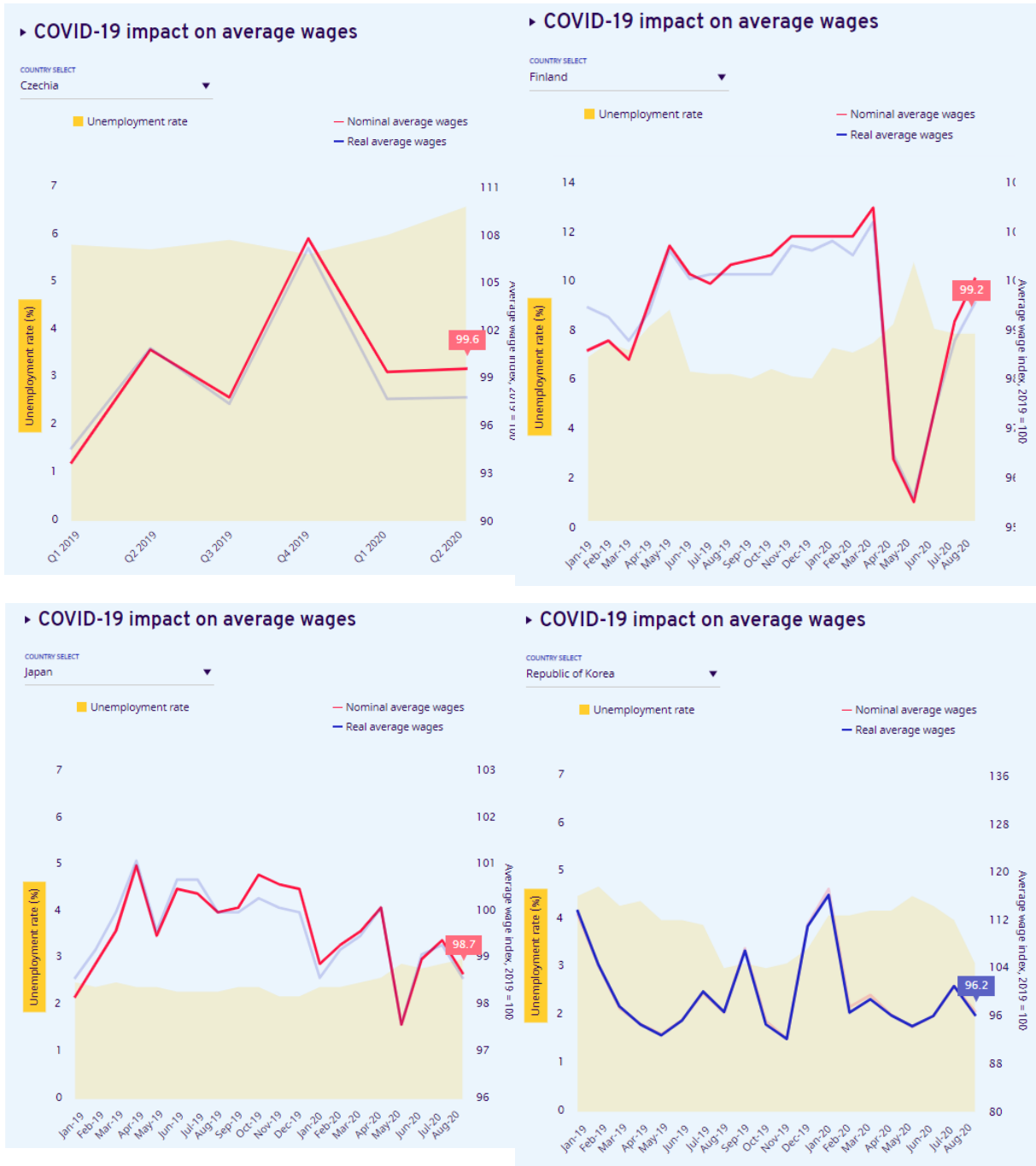
Figure 3. Countries where the unemployment rate in 2020 was lower or relatively constant compared to 2019

Source: Author’s processing according to

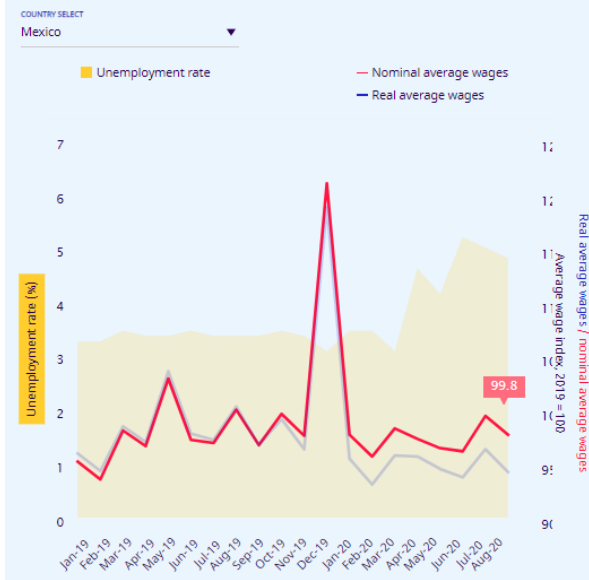
<https://www.ilo.org/infostories/Campaigns/Wages/globalwagereport#changes/changes-2020>

Also, based on the data provided by the ILO on the evolution of the average nominal and real salary in 2020 compared to the previous year, 2019, the analyzed countries can be grouped into the following categories:

- Countries where both the average nominal wage and the average real wage were higher in 2020 than in 2019 –i.e. most countries, such as: Brazil, Bulgaria, Canada, Chile, Denmark, France, Hungary, Italy, North Macedonia, Netherlands, Norway, Portugal, Romania, Russian Federation, Serbia, Sweden, Thailand, USA, UK. (see Figure 2 and Figure 3)
- Countries where both the average nominal wage and the average real wage were lower in 2020 than in 2019 - Czech Republic, Finland, Japan, Korea, Mexico, Slovakia, Spain, South Africa, Vietnam (see Figure 4).



COVID-19 impact on average wages



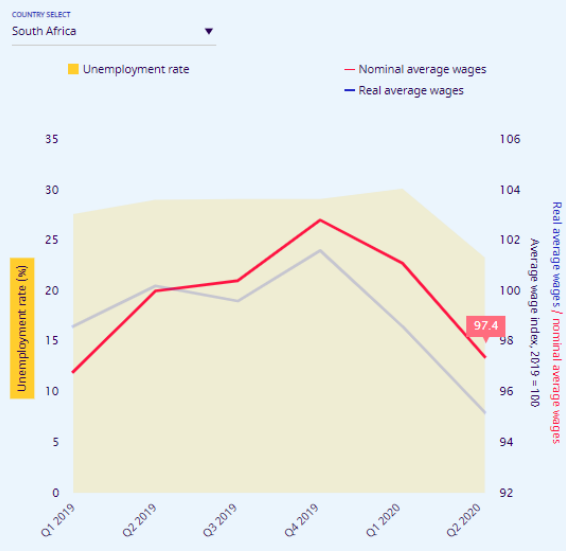
COVID-19 impact on average wages



COVID-19 impact on average wages



COVID-19 impact on average wages



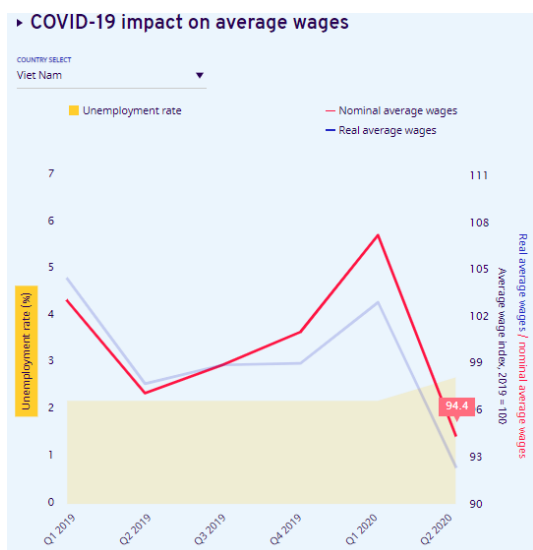


Figure 4. Countries where the average nominal and real salary in 2020 were lower than in 2019

Source: Author's processing according to https://www.ilo.org/global/about-the-ilo/multimedia/maps-and-charts/enhanced/WCMS_762931/lang--en/index.htm

Countries where only the average nominal salary in 2020 was lower than in 2019 - the case of Malaysia.

Countries where only the average real salary in 2020 was lower than in 2019 - the case of Germany.

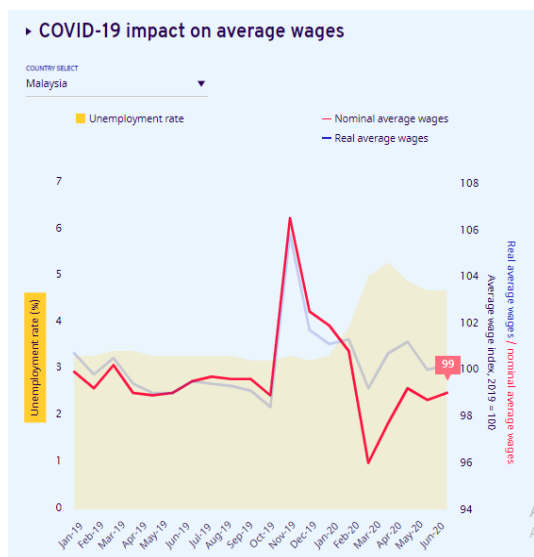


Figure 4. Malaysia - the country where only the average nominal salary in 2020 was lower than in 2019

Source: Author's processing according to https://www.ilo.org/global/about-the-ilo/multimedia/maps-and-charts/enhanced/WCMS_762931/lang--en/index.htm

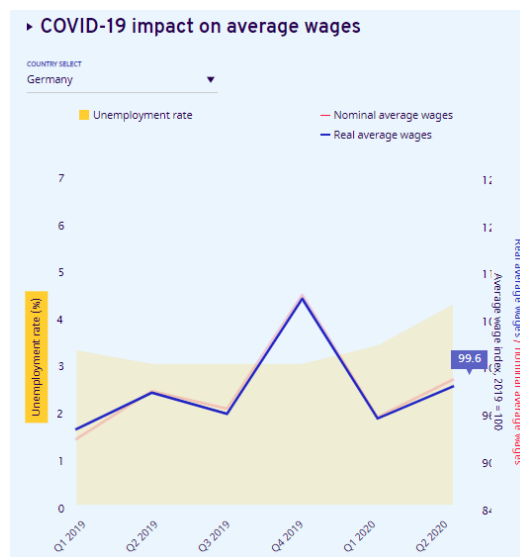


Figure 5. Germany - the country where only the average real salary in 2020 was lower than in 2019

Source: Author's processing according to https://www.ilo.org/global/about-the-ilo/multimedia/maps-and-charts/enhanced/WCMS_762931/lang--en/index.htm

4. Conclusions

The pandemic has affected the entire global economic climate and still continues to cause damage even today, from the health, economic and social point of view. Restrictions caused by the pandemic have generated a number of economic and social phenomena that have influenced the evolution of the annual inflation rate, as well as the level of nominal and real average wages, globally.

Although, in most countries in the world during the pandemic, the average nominal wage and the average real wage were not lower than in 2019, this does not reflect a real situation, but is the effect that by reducing the jobs less paid in economy, the average salary increases. In fact, nominal wages have been on the decline in most countries in the world as a result of companies trying to survive in the new global economic context. Thus, the employees of the companies, and especially those in small and medium enterprises, were affected either by the restriction of the activity and their temporary or permanent dismissal, or by the reduction of nominal salaries or even when they remained unchanged they also registered a reduction of real salaries as a result of rising inflation in most countries.

In USA “*Employment losses have been concentrated disproportionately among lower wage workers; as of late June employment for workers in the lowest wage quintile was still 20 percent lower relative to mid-February levels. As a result, average base wages increased between February and June, though this increase arose entirely through a composition effect*” (Crane, et al., 2020)

The countries where both the average nominal wage and the average real wage were lower in 2020 than in 2019 are: Czech Republic, Finland, Japan, Korea, Mexico, Slovakia, Spain, South Africa and Vietnam.

There are also countries where the unemployment rate has not risen sharply due to the fact that some states have provided wage subsidies and a number of measures to reduce redundancies, which has kept average nominal and real wages relatively constant. Thus, the economic crisis that has thus overlapped with the health crisis has many implications for people's lives and living standards in both the short and medium term.

Summarizing the conducted study on the evolution of the unemployment rate and the average nominal and real wages worldwide, we can say that it is current, because it addresses phenomena that are strongly influenced by the new conditions imposed by the Covid-19 pandemic.

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