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## THE EU LABOUR MARKET: TRENDS AND PATTERNS FOR CANDIDATE COUNTRIES

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**Abstract:** *The article examines specific aspects of the European Union (EU) labour market, its dynamics and structure to assess the potential opportunities for candidate countries. The research aims to identify trends and patterns of labour market development for candidate countries and potential candidates for membership in the European Union. The study uses data from labour market statistics for the EU, candidate countries, and potential candidates (enlargement countries). The research is based on comparison, grouping, generalisation, trend analysis, correlation regression, and cluster analysis. The labour market indicators in most studied countries are significantly lower compared to the EU, but positive dynamics are observed. The results show that candidate countries and potential candidates have different indicators that characterise the level of development and dynamics of the labour market. Most candidate and potential candidate countries (except the Republic of Turkey) have downward trends in unemployment and a close negative correlation between unemployment and Gross Domestic Product per capita. Labour market analysis can support policymaking for candidate countries and potential candidates and monitor participation in the EU labour market.*

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**Keywords:** candidate and potential candidate countries, economic activity, employment, EU, labour market

## 1. Introduction

Unemployment is one of the most pressing global issues today. In the EU, this predicament is tackled using intricate methods of regulation, which not only provide financial support but also establish the necessary conditions for economic growth. However, in countries undergoing economic transition, specifically those considering EU membership, high unemployment remains an outstanding challenge that requires resolution. Applying for membership in the EU, less developed countries expect to receive economic benefits from interaction with more developed countries, thus solving the issue of poverty and unemployment.

One of the primary objectives of the EU's labour market development by 2030 is to attain an employment rate of 78% among individuals aged 20 to 64. Simultaneously, it aims to encourage the education of citizens by ensuring that 60% of the adult population participates in training programmes. Additionally, the EU aims to reduce the risks of poverty and social isolation by lifting at least 15 million citizens from the risk of poverty. These ambitious objectives are outlined in The European Pillar of Social Rights Action Plan (European Commission, 2021). By 2019, most developed European countries were steadily progressing towards their labour market targets. Nevertheless, the COVID-19 pandemic changed the development strategy, resulting in a pause in rapid progression. The employment rate in the European market dropped to 72.4% during the third quarter of 2019 according to the European Commission (2021). However, there is some variation among researchers regarding reducing employment during the crisis. Although at the outset of the COVID-19 outbreak, many experts and scientists were discussing the pandemic's negative and potentially catastrophic impact on the labour market, the trends observed in 2021 have validated the hypothesis that nearly all European developed countries have been obliged to adopt a new, more dynamic approach to development. This transformation is attributed to innovations and the transition of almost all sectors to new product launches and sales technologies (De Vet et al., 2021).

The rapid market recovery of high-income countries affects labour markets in less-developed countries. The impact is felt even within the EU, where the increased demand for

labour stimulates migration from the less developed regions of Eastern Europe. Once the labour market becomes accessible for the EU-candidate countries, where wages and living standards are much lower than in Europe, their labour market will be reformatted entirely (World Bank, 2019).

The research aims to identify trends and patterns of labour market development in candidate and potential candidate countries for the European Union membership.

To accomplish the aim, the subsequent tasks were completed:

- Comparative analysis of the labour market in the candidate countries and potential candidates;
- Identification of trends in changes in the employment level of the population in the countries after joining the EU;
- Determination of the relationship between unemployment and Gross Domestic Product (GDP) per capita in candidate and potential candidate countries;
- Identification of standard and distinctive features of labour market development in the studied countries.

Research identifying potential opportunities and threats for EU candidate countries is scarce at the scientific level, so this topic has significant scientific value.

The study's structure comprises an introduction, a literature review outlining crucial aspects of the EU labour market's evolution, its distinctive traits, and transformations. The research findings involve an examination of activity level alterations (in EU membership applicant and possible applicant nations), employment and unemployment indicators (in EU 2004 and 2007 accession states), recognition of the relationship between unemployment and GDP level in states seeking EU membership and potential candidates, cluster analysis, data discussion, and conclusive author observations from the analysis.

## **2. Literature review**

In the 1950s, the formation of the European Coal and Steel Community (ECSC) and the European Economic Community (EEC) established the basis for developing a shared labour market, free labour mobility, and social protection for migrants. Since then, there has been a pronounced rise in economic cooperation among member states of the EEC, and

subsequently, the EU. During the period of deepening integration processes, one of the primary objectives of the EU was to establish a unified market, guaranteeing the free flow of goods, services, individuals, and capital throughout its boundaries. However, this goal has been impeded by intangible barriers and difficulties in decision-making, leading to significant delays in the integration process (Lehtimäki & Sondermann, 2022). The European Commission's White Paper in 1985 was crucial in restoring integration by outlining requirements for a single market. The creation of a genuine single market had outlined the economic needs, channels, and impact. This became the foundation for further adopting the Single European Act in 1986 and forming a common market. Consequently, it served as an essential stage in recognising the labour market as part of the common pan-European internal market. Since 1992, the European Union's single market has expanded by admitting new member states that have become part of the common market. As a result, the European Union labour market has developed key features. This includes the freedom of labour movement, a social security and protection system, a promotion of occupational mobility, and collaboration in skilled worker training. The EU labour market, established on the principles of a shared market, has emerged as the pivotal component of Europe's sociopolitical spectrum.

To thoroughly analyse the issue, it is essential to study the complex structure, organisation, and unique characteristics of the labour market in the EU. The core objectives of EU general social policy involve ensuring a high level of employment, reduced unemployment, stable living standards, social protection, and addressing migration issues (Didenko, 2010). The authors' research outlines the unique characteristics of employment policies and the EU's strategies for addressing employment-related challenges. The Open Method of Coordination (OMC) forms part of the EU's employment policy and Luxembourg process and can serve as an instrument of the Lisbon strategy. This framework allows the Member States to cooperate towards achieving common objectives by directing their respective national policies. Under this intergovernmental approach, countries assess each other through peer pressure, while the Commission's responsibility is limited to monitoring (Eurostat Statistics Explained, 2023a).

Tvrdon (2008) showed the theoretical foundations of labour market formation in the EU, highlighting the institutional component and its importance in the efficiency of the labour market and economy. Regarding the structure of the EU labour market, the author's research examines

the influence of the Visegrad Group nations, encompassing Poland, the Czech Republic, Slovakia, and Hungary, on the EU labour market. Tvrdon (2008) identified that the labour market in these countries struggles with less effective regulation compared to developed European countries. The significance of improving labour market regulation efficiency is supported by Dayıođlu and Aydın's (2020) research. The authors identified economic development, unemployment stemming from labour market management, inflation, and current account balance as crucial indicators of a country's economic performance. The interplay between these variables holds immense significance for economic policies.

A key feature of the contemporary EU labour market is to encourage employment in specific member countries of the EU and to address workforce deficiencies caused by migration of workers (Ward-Warmedinger & Macchiarelli, 2013). The authors demonstrate that EU members establish labour and work conditions that can efficiently tackle unemployment in various countries and economic sectors within a particular nation. Khaing (2021) analysed the countries' policies to regulate labour migration, while Arpaia et al. (2016) support the notion that population mobility can bring balance to labour markets across EU countries. Barrett et al. (2006) and Ward-Warmedinger and Macchiarelli (2014) demonstrated the particularities of workforce movement in diverse areas of the of the EU.

Kahanec's (2015) analysis explored the impact of labour migration from the Eastern to the Western regions of the EU. The study identified the primary threats and opportunities faced by both sides. Kahanec argues that the receiving country gains a larger benefit than the sending country in regards to available labour resources. However, the advantages and disadvantages of labour migration and free mobility within the enlarged EU are influenced by a variety of individual and industrial factors. Nevertheless, these practices allow for more efficient labour markets. Global crisis phenomena, including the COVID-19 pandemic, play a pivotal role in the labour market across various countries. An analysis of the pandemic's effects on the labour market revealed a significant surge in the EU market during the first quarter of 2020. The countries with the highest absenteeism rates were Cyprus, the Hellenic Republic, Spain, Italy, and France, while the Czech Republic, the Slovak Republic, Sweden, and Hungary had the lowest rates. According to experts (Chinn et al., 2020), unemployment in Europe could be

prolonged. Economic recovery was expected to take up to four years in 2020, but in 2021, experts anticipate a complete recovery from the pandemic by 2022 (De Vet et al., 2021).

The impact of the pandemic on the labour market is not uniformly adverse across all countries and economic sectors. Certain states will benefit from the labour market crisis. For instance, Poland, Romania, and Italy will be able to hold onto their highly skilled workforce that would typically migrate to work in other European countries (Buttler, 2021). Regulating labour markets within European countries greatly affects the overall effectiveness of employment level management in the EU. Therefore, the functioning of labour markets at the national level remains increasingly relevant and is a significant area of scientific research. Tassinari (2022) analyses labour market regulation in Italy, investigating the various stages of liberalisation and identifying persistent obstacles that hinder further growth. The research reveals that policies governing the labour market, particularly with regards to post-pandemic trends, remain restricted in scope, leading to a lack of substantial change. Italy's National Plan for Recovery and Resilience centres on measures impacting the supply of the labour market (Tassinari, 2022). Similarly, Walter (2023) emphasises the particular importance of the German market in the EU labour market structure. His study analyses the link between the effectiveness of German labour market reform and employment, looking at the impact of productivity growth in Germany and Eastern Europe and the relationship between trade intensification and labour productivity.

The labour market conditions in EU candidate countries are less favourable than those in developed European nations. Blazhevski and Nikolic Blazevska (2023) underline in North Macedonia the labour shortage as a consequence of migration trends and the decreasing employment of workers with specific knowledge, abilities and skills. In Montenegro, Golubovic et al. (2022) examine poverty within the working population and discover that it has reached an unprecedented level, surpassing all other countries in the former Yugoslavia, demonstrating its lack of compliance with the EU's poverty guidelines. Factors contributing to the issue of poverty in Montenegro are the prolonged lack of minimum wage adjustments, inadequate benefits, limited financial assistance based on income, challenges in obtaining child support from employment status, and relatively high tax rates on earned income. Albania's labour market is characterised by developmental variability, particularly with the country's transition to a market economy. Vulnerability is observed among two categories of the working population: young

people who are new participants in the labour market and workers of the older generation who struggle to adapt to changes in the working environment, social services, and public enterprises (Xhumari, 2023). The authors highlight the significance of customising Albanian work provisions for these vulnerable workers to meet the standards and principles of European social policy, as the nation pursues integration with the European Union. Bosnia and Herzegovina also faces challenges related to population ageing, leading to difficulties in employing older generations of citizens (Pranjić and Račić, 2020). The trends in population ageing contribute to a deteriorating employment situation and an increase in unemployment, further widening the gap between the country's indicators and those of successful, developed EU states. Also, Stojanova et al. (2019) conducted a study on the elderly population of EU countries, examining the duration of their working lives and the prevalence of unemployment in a distinct context. The author determined that the shorter the duration of working life, the less likely the labour force aged 55 to 64 will be unemployed. Older people are expected to retire earlier, reducing unemployment in the 55–64 age group. As per the author, digitalisation and unemployment are correlated. To maintain employment levels among older citizens in the “Industry 4.0” era, strategic workforce planning, role adaptation, personnel selection, and professional training are crucial. These measures aim to equip the labour force with additional IT skills.

Active discussions are taking place regarding the dependence of labour market development on various factors. Notably, monetary policy is singled out as one of the main and significant factors that correlate with labour productivity (Assemien et al., 2019; Gomes et al., 2023), especially concerning the control of inflation levels (Ari et al., 2023; Bulligan and Viviano, 2017; Yildirim, 2015;) and the discount rate.

It has been demonstrated that emigration influences employment and unemployment rates. Specific patterns were identified by Škuflić and Vučković (2018), who found that a higher share of emigrants corresponds to a higher unemployment rate, indicating a positive correlation between the variables. However, an unambiguous interpretation of this conclusion is not possible due to the influence of other factors such as differences in skills between emigrants and those who remain, labour shortages in specific sectors, potential immigration, and wage levels, and the resulting consequences (Zaiceva, 2014). The emigration prerequisites are also linked - if emigrants were previously classified as unemployed, the unemployment rate would decrease;

however, if emigrants were employed before emigration, the impact would be contingent on the likelihood of filling their vacancy with eligible candidates (Asch, 1994).

Moreover, a noticeable correlation exists between the level of innovation development in a state, technological progress, and labour productivity. Chinoracký and Čorejová, T. (2019) made a noteworthy contribution and conducted a correlation regression analysis to determine the relationship between labour market development and digital transformations. Their findings highlight that the main trends in the correlation between the two are the changes in employment rules, requirements for competencies, knowledge, skills, and attitudes of employees. The risk of automation due to global digitisation is inherent in all European nations. However, those in Eastern and Southern Europe are at a significantly higher risk of job automation. This could bring about potential transformations in the job market structure and employment indicators. According to the authors' calculations, countries with low levels of employment face a greater risk of job automation, while those with higher employment levels are less likely to experience it.

In the context of enhancing productivity management and mitigating job losses brought about by digital transformations, emphasis is placed on enhancing digital skills and the professionalism of human capital (Aly, 2022). Retkoceri and Kurteshi (2018) investigated Kosovo, Deshati (2015) analysed Albania, and Nikolic et al. (2015) researched Serbia, pinpointing the primary limitations to innovative progression in particular EU member states and their influence on the labour market and employment opportunities.

### **3. Methodology**

The study analyses the labour market of various groups of countries based on a sample. EU member states include Albania, Montenegro, North Macedonia, Serbia and Turkey, all candidates for joining the EU. In addition, Bosnia and Herzegovina and Kosovo are considered potential candidates. These countries have demonstrated their unequivocal interest in joining the European Union. Nevertheless, the European Commission is presently examining their status as members of the European Community (European Commission, n.d.). As labour market statistics are only available up to and including 2020, it was necessary to consider modifications to the list of candidates and potential candidates for 2021 and 2022.



For the study, we have provided an overview of labour force characteristics covering indicators defined according to the methodology adopted in the EU (Eurostat Statistics Explained, 2015):

1. Activity rate – the percentage of active persons about the comparable total population. The economically active population comprises employed and unemployed persons;
2. Employment rate – the percentage of employed persons about the comparable total population. The comparison is made with the working-age population for the overall employment rate;
3. Unemployment rate – the number of people unemployed as a percentage of the labour force.

Eurostat publishes labour market statistics based on the definition of unemployment provided by the International Labour Organization (ILO). The primary source for European labour force statistics is the European Union labour force survey (Eurostat Statistics Explained, 2023). The labour force survey is conducted according to the European legislation in all EU Member States. Likewise, Montenegro, North Macedonia, Serbia and Turkey, candidate countries and potential candidates, carry out the survey following the same protocols. Both the EU and their data are available for free on Eurostat's website (Eurostat Statistics Explained, 2023b). Data for the enlargement countries (candidate nations or potential candidates) is collected annually for a range of indicators via a questionnaire sent by Eurostat.

Correlation coefficients were calculated from 2010-2020 data to explore the correlation between unemployment levels and GDP per capita in candidate nations and potential candidates for EU membership. The regression equation for each country was established:

$$y_i = a_i + b_i x_i, \quad (1)$$

where:  $i$  – years,  $y$  – GDP per capita (current EUR),  $x$  – unemployment rate (% of the total labour force).

The utilization of correlation-regression analysis enables a thorough depiction of the interdependencies among indicators. Chinoracký and Čorejová (2019) previously employed this methodology to investigate the labour market of the European Union. Their research sought to establish correlations and evaluate the degree of influence between the labour market progress of designated EU nations and variables that impact it, for instance, the proliferation of digital

technologies. The selected methodology enables a clear depiction of interdependencies and causal relationships. The study examined the correlation between the unemployment rate among those aged 55-64 and individual explanatory variables utilizing the methodology presented in Stojanova et al.'s (2019) work. Additionally, the research conducted by Škuflić and Vučković (2018) analysed the influence of migration processes on the level of unemployment.

To obtain a labour market forecast for 2021-2022 in candidate and potential candidate countries, a trend analysis was conducted based on data for 2010-2020.

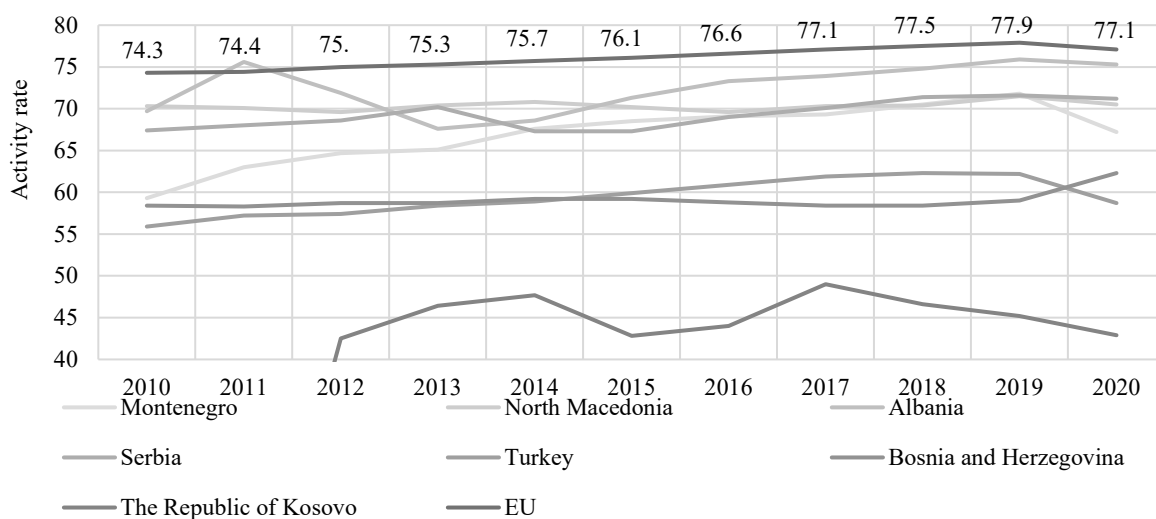
The study employed the cluster analysis method to cluster analysed countries according to their unemployment rate and GDP per capita similarity in 2010 and 2020. An Agglomerative Hierarchical Clustering (AGNES) was used to create the clusters. The statistical analysis was conducted using XLSTAT software in Excel.

#### **4. Main features on the labour market within EU and enlargement countries**

In the context of the rapidly evolving migration processes and the rise in human capital mobility, coupled with the exacerbation of crisis phenomena at the national economy level, the significance of the EU labour market is of paramount importance. The European labour market provides a relatively stable atmosphere with a dense concentration of skilled, top-notch labour and enticing job prospects. The crisis between 2010 and 2022 had a significant impact on market stability, resulting in decreased employment levels and an uptick in the unemployment rate. However, the clear adherence to defined guidelines, principles of employment management, and the social sphere, along with member states' compliance with national goals and obligations in labour market management, helped prevent indicators of activity on the European labour market from reaching critically low levels.

The co-ordinated employment management policy of the EU creates a highly desirable European labour market for developing countries. These countries commonly align themselves with the European integration development trajectory. As a result, the activity rates have increased in most of the EU's potential candidate countries, including Albania, Serbia, Montenegro, Bosnia and Herzegovina, from 2010 to 2020 (refer to Figure 1).

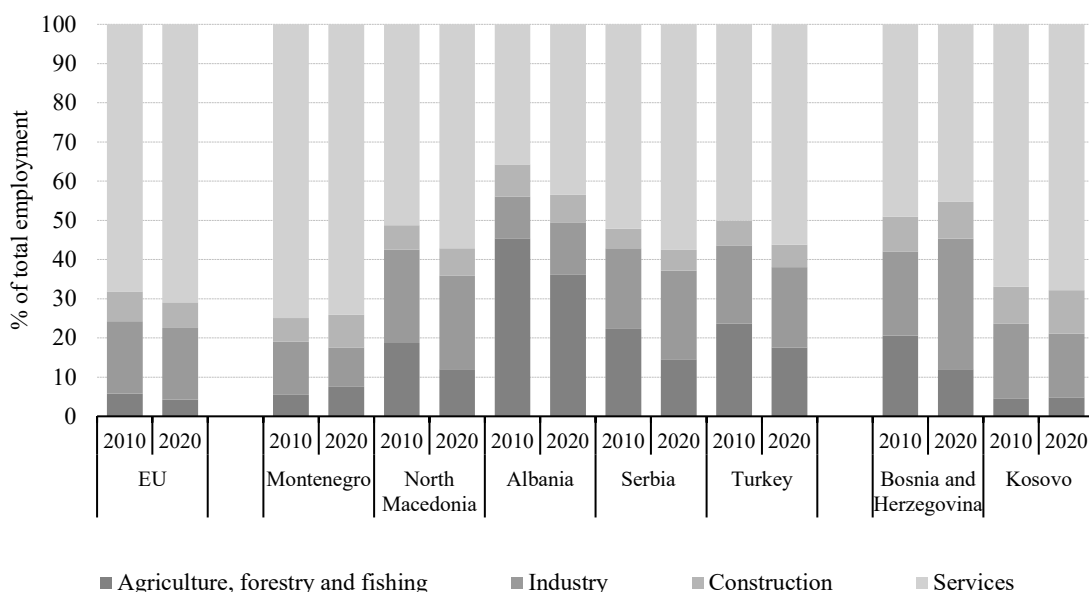
**Figure 1.** Activity rates of persons aged 20-64 years, 2010-2020



Source: Eurostat Statistics Explained (2023b)

Based on Figure 1 data, the average activity level among the population aged 20 to 64 years residing in EU member states stands at 76.1%. During the investigated period, there was an increase of 3.8% in the indicator. Despite the survey, none of the countries have achieved the EU activity level. Albania reported the highest activity rates at 75.3%, whereas Kosovo, a potential candidate for the EU, marked the lowest at 43%. As the activity level quantifies the proportion of active individuals within the entire population, it is relevant to concentrate on the count of both employed and unemployed individuals in prospective EU member states and potential candidates. Figure 2 shows an analysis of the employment structure for 2010 and 2020 by broad economic activities.

**Figure 2.** Employment of persons aged 15 years or more by economic activity, 2010 and 2020 (% of total employment)



Source: Eurostat Statistics Explained (2023b), Eurostat (2023a)

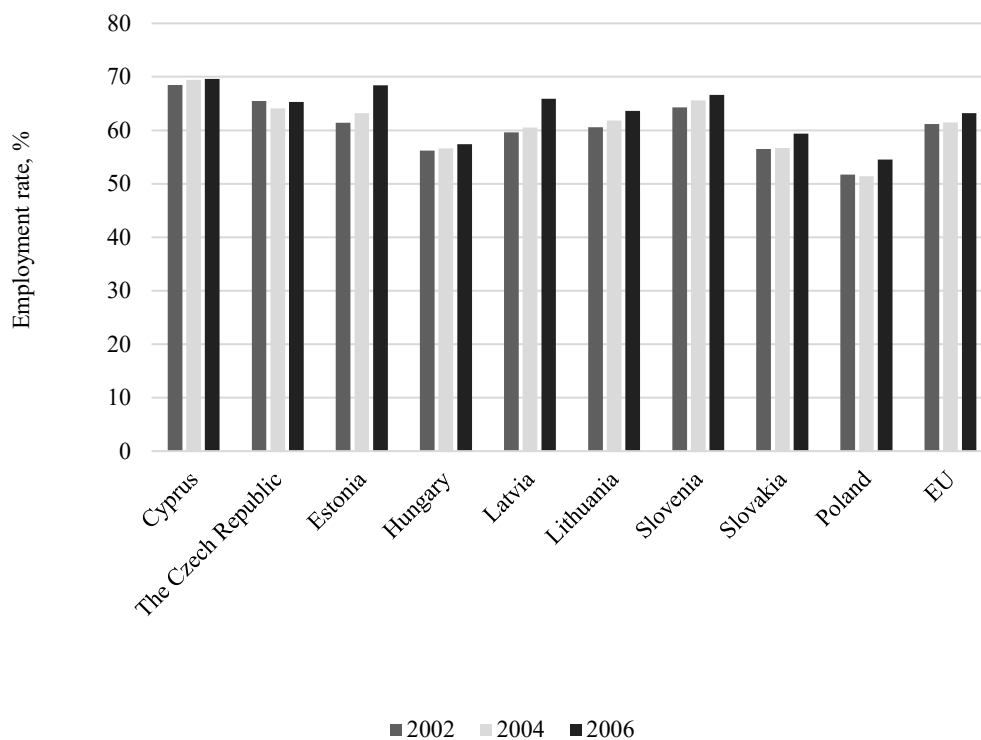
In most candidate and potential candidates' countries, services are the most significant proportion of the workforce and grew during the analysed period. In 2020, services accounted for more than half of people employed in all studied countries except Albania Bosnia and Herzegovina. The highest employment share of services was in Montenegro (74.1% in 2020) and Kosovo (67.9% in 2020). Many of the workforce was employed in agriculture, forestry, and fishing in most candidate and potential candidates' countries except for Kosovo (4.8%) and Montenegro (7.5%). The industry's employment share was relatively stable and changed slightly over the period analysed. The different structure of economic activity was in the EU's workforce. In 2020, more than 70% of persons were employed in the service; the industry had the second largest share with more than 18% of total employment, and the claims of employment in construction, agriculture, forestry, and fishing were much lower (Eurostat Statistics Explained, 2023b).

Generally, the unemployment rate changes sometimes after specific economic or political influences. When a country's economy begins to respond to definite macroeconomic factors, employers remain typically cautious about hiring new workers, and there may be a delay before the unemployment rate begins to fall. A study of various country-specific case studies and trends

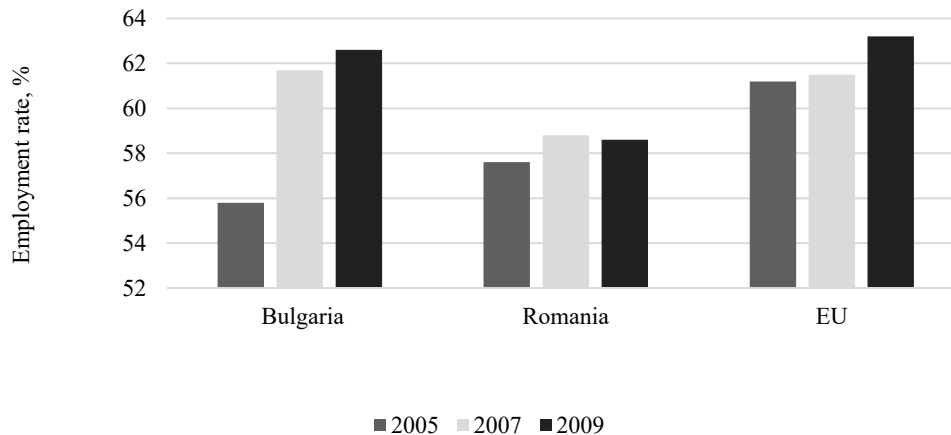
demonstrates that changes in labour market stem from alterations in regulations and regulations-related institutions that govern the labour market (International Labour Organization, 2016).

EU membership has a variety of impacts on the labour market, and accession may lead to changes in employment rates. Figure 3 (a, b) presents data for the nations that joined the EU in 2004 (Estonia, Latvia, Lithuania, Slovenia, Slovakia, Cyprus, Czech Republic, Hungary, Poland) and 2007 (Bulgaria and Romania).

**Figure 3.** Employment rate, total (% of the total labour force of working age): a - in Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovenia, Slovakia, Poland and EU; b - Bulgaria, Romania and EU



a)



b)

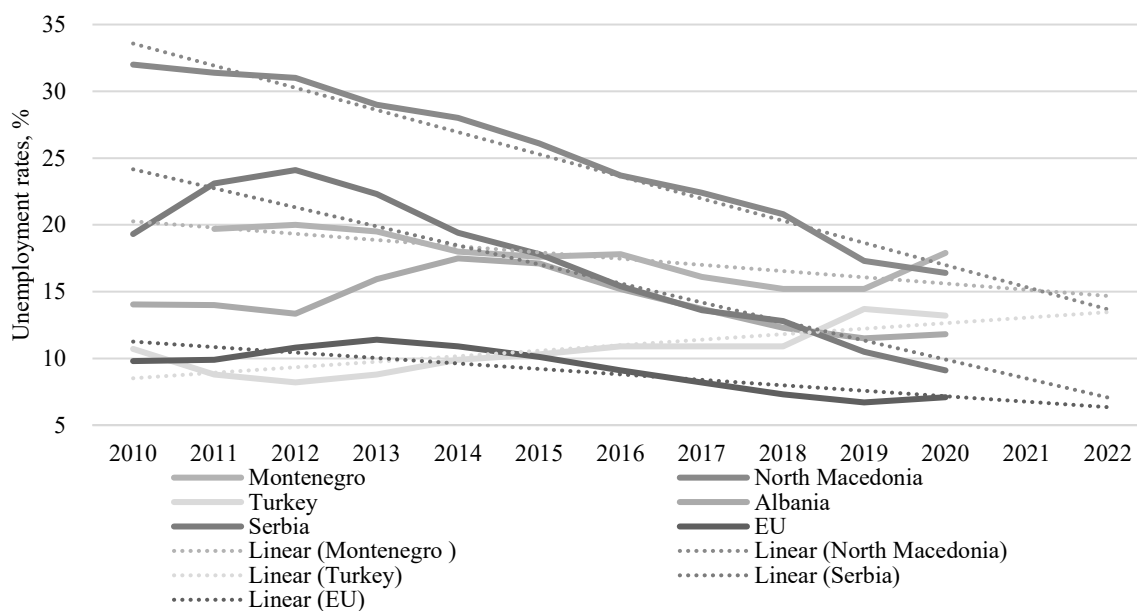
Sources: Compiled by the authors on the data from Eurostat (2023a)

Employment rates in EU accession countries have varied during the study period and no specific pattern emerged. Certain countries, such as Estonia, Latvia, Lithuania, Slovenia, and Slovakia, experienced an increase in employment rates within two years of accession. However, others, including Cyprus, Czech Republic, Hungary, and Poland, witnessed a decline. The accession countries that joined the EU in 2007 had differing scenarios, with Bulgaria experiencing a decline in employment and an increase observed in Romania.

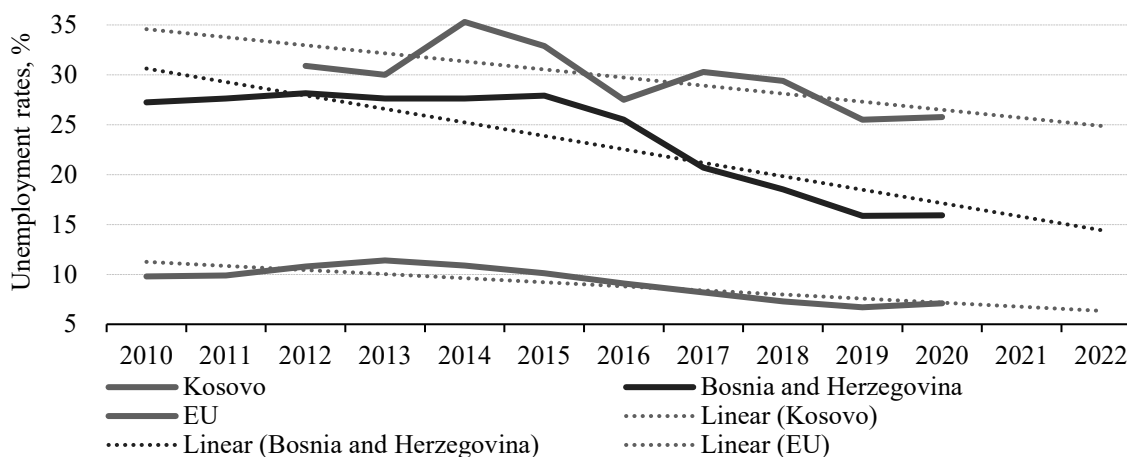
Unemployment rate data for candidate and potential candidate countries, as well as for the EU, is presented in Figure 4 (a, b).

Within the 2010-2020 period, unemployment rates peaked in Kosovo and Albania in 2014, in Montenegro, Bosnia and Herzegovina, and Serbia in 2012, in North Macedonia in 2010, and in Turkey in 2019. The highest unemployment rate for the EU was recorded in 2013. Unemployment rates in most EU candidate and potential candidate countries hit their lowest point in 2019, during the period from 2010 to 2020. However, Turkey experienced its minimum rate in 2012 (refer to Figure 4 (a, b)).

**Figure 4.** Unemployment rates 2010-2020 (% of the labour force): a - in Montenegro, Turkey, Serbia, North Macedonia and Albania; b - in Kosovo, Bosnia and Herzegovina and EU



a)



b)

Sources: Compiled by the authors on the data from Eurostat Statistics Explained (2023b), Eurostat (2023c)

The unemployment rate in the EU was 7.1% in 2020, with an average rate of 9.2% from 2010-2020. Kosovo had the highest unemployment rate in 2020 and the highest average unemployment rate between 2010 and 2020. The countries with the highest unemployment rates during this period were Montenegro, North Macedonia, and Bosnia and Herzegovina, while Serbia and Albania had the lowest unemployment rates in 2020 amongst the countries analysed.

Turkey's unemployment rate in 2020 was 13.2%, surpassing the average rate of 10.6% from 2010 to 2020 and standing out from its candidate and potential candidate counterparts.

## 5. Results and Discussion

The trend lines for 2021-2022 indicates a general trend towards diminishing unemployment rates throughout the European Union, including both candidate and potential candidate countries. Notably, Serbia is predicted to meet the EU's unemployment level by 2022. However, Turkey is the only country that displays an inclination for escalating its current unemployment rate over the course of 2021-2022.

The analysis of the relationship between unemployment (UnL) and GDP per capita (GDPpc) in the candidate countries and potential candidates based on the correlation-regression analysis of the data for 2010-2020 is shown in Table 1.

**Table 1.** Unemployment rate\* and real GDP per capita\*\* in candidate countries and potential candidates in 2010-2020

	Albania		Bosnia and Herzegovina		Kosovo		Serbia		Montenegro		Turkey		North Macedonia	
	Real GDP pc	UnL	Real GDP pc	UnL	Real GDP pc	UnL	Real GDP pc	UnL	Real GDP pc	UnL	Real GDP pc	UnL	Real GDP pc	UnL
2010	3090	14.09	3665	27.31	2271	...	4330	19.22	5050	19.65	8000	10.66	3460	32.02
2011	3180	13.48	3792	27.58	2528	...	4450	22.97	5200	19.76	8760	8.8	3530	31.38
2012	3230	13.38	3794	28.01	2655	30.88	4440	24.00	5060	19.81	9070	8.15	3510	31.02
2013	3260	15.87	3878	27.49	2794	29.77	4590	22.15	5230	19.59	9710	8.73	3610	29



2014	3 330	18.0 5	3 967	27.5 2	2 950	35.2 6	4 540	19.2 2	5 320	18.0 5	10 050	9.88	3 740	28.0 3
2015	3 410	17.1 9	4 155	27.6 9	3 202	32.8 4	4 640	17.6 6	5 500	17.5 5	10 520	10.2 4	3 870	26.0 7
2016	3 530	15.4 2	4 355	25.4 1	3 368	27.4 9	4 820	15.2 6	5 660	17.7 3	10 730	10.8 4	3 980	23.7 2
2017	3 670	13.6 2	4 578	20.5 3	3 534	30.3 4	4 950	13.4 8	5 920	16.0 8	11 380	10.8 2	4 020	22.3 8
2018	3 830	12.3	4 891	18.4 715	3 6	27.7 200	5 200	12.7 3	6 230	15.1 9	11 560	10.8 9	4 130	20.7 4
2019	3 920	11.4 7	5 169	15.6 9	3 959	25.0 7	5 460	10.3 9	6 480	15.1 3	11 490	13.6 7	4 290	17.2 6
2020	3 810	11.8	5 040	15.8 7	3 772	25.4 6	5 440	9.01	5 490	17.8 8	11 600	13.1 1	4 100	16.5 5
Multiple R	0.5429		0.9614		0.7178		0.9238		0.9651		0.6748		0.9662	
R Square	0.2948		0.9243		0.5152		0.8535		0.9315		0.4554		0.9335	
X Variable	-73.2362		-102.9695		-98.2492		-72.9698		-257.8805		493.8183		-49.7067	

Sources: Compiled by the authors on the data from Eurostat (2023c), Kosovo Agency of Statistics (2022), Agency for Statistics of Bosnia and Herzegovina (2023)

Note: \*Unemployment, total (% of the total labour force); \*\*GDP per capita (current EUR).

The correlation coefficients computed in Table 1 confirm a tight correlation between unemployment and GDP per capita across nearly all considered countries. The calculated coefficients range from 0.5429 (Albania) to 0.9662 (North Macedonia). An examination of the results mentioned earlier indicates that unemployment rates have an effect on the GDP level.

The countries of Bosnia and Herzegovina, Kosovo, Serbia, Montenegro, and North Macedonia share a direct and significant relationship between their indicators. By decreasing unemployment rates, these nations could improve their GDP, boost production levels, and drive aggregate demand. As these nations undergo transformation, the persistent effort to maximize the effective utilization of their human potential should be a critical component of their development strategy. The implementation of socially-driven initiatives by these nations will aid in achieving acceptable levels of production while facilitating steady GDP growth. In contrast, the scenario in Albania and Turkey varies, where the correlation between unemployment and actual GDP is comparatively weaker. A more complex set of factors influences the creation of GDP, and unemployment is not the sole determinant of its dynamics. Pricing processes, market price regulation, economic conditions, and inflation play significant roles. The markets' unique characteristics, as well as the relatively higher inflation rate in Albania and Turkey compared to Bosnia and Herzegovina, Kosovo, Serbia, Montenegro, and North Macedonia, may explain the average density of connection between the studied indicators in these countries (Appendix A). Inflation and unemployment show a dependent relationship, as evidenced by the Phillips curve, whereby a reduction in unemployment rates leads to a faster increase in inflation-adjusted wages in the long term.

Although the correlation between these indicators has undergone some changes following the global financial crisis of 2008 and the 2019 pandemic in Eurozone countries, it still demonstrates instability over time but remains present. The decrease in unemployment rates in Albania and Turkey cannot be interpreted solely as a consequence of increased labour productivity. Therefore, it did not considerably influence the increase in production volumes and the upward trend in GDP, as indicated by correlation indicators.

The information gathered from Table 1 on unemployment levels and GDP per capita allowed for the classification of candidate and potential candidate countries into three groups at the start (2010) and end (2020) of the study period (Table 2).

**Table 2.** Results of cluster analysis for candidate countries and potential candidates in 2010 and 2020

Clusters	2010	2020
1	Albania	Albania, Serbia, Montenegro, North Macedonia
2	Bosnia and Herzegovina, Kosovo, Serbia, Montenegro, North Macedonia	Kosovo, Bosnia and Herzegovina
3	Turkey	Turkey

Source: Compiled by the authors

Cluster analysis results provide evidence of different labour market development patterns for candidate and potential candidate countries over the period studied. Consequently, Turkey exhibits distinctive features within its labour market. Between 2010 and 2020, Albania, Serbia, Montenegro and North Macedonia exhibited similar levels of unemployment and GDP per capita, comparable to those of Kosovo and Bosnia and Herzegovina, which are currently potential candidates. These countries share common traits with regard to the indicators and their relationship.

Emigration is a widespread phenomenon in EU candidate countries and potential candidates. Based on Eurostat website data, the majority of studied countries, excluding Turkey, exhibit a negative net migration indicator, demonstrating high emigration rates in these states.

Table 3 displays the correlation-regression analysis of data from 2011 to 2020 concerning the relationship between net migration (MIGR<sub>n</sub>) and unemployment (UnL) in candidate and potential candidate countries.

**Table 3.** Unemployment rate and net migration\* in candidate countries and potential candidates in 2011-2020

	The Republic of Albania		Bosnia and Herzegovina		The Republic of Kosovo		The Republic of Serbia		Montenegro		The Republic of Turkey		The Republic of North Macedonia	
	MIG Rn	UnL	MIG Rn	UnL	MIG Rn	UnL	MIG Rn	UnL	MIG Rn	UnL	MIG Rn	UnL	MIG Rn	UnL

2011	-18 626	13.4 8	-271	27.5 8	-34 674	...	2 437	22.9 7	-910	19.7 6	1352 36	8.8	-795	31.3 8
2012	-19 841	13.3 8	0	28.0 1	15 159	30.8 8	-1	24.0 0	-952	19.8 1	26 251	8.15	-934	31.0 2
2013	-20 684	15.8 7	244	27.4 9	-17 167	29.7 7	0	22.1 5	-930	19.5 9	1295 12	8.73	-455	29
2014	-21 702	18.0 5	0	27.5 2	-33 982	35.2 6	2 420	19.2 2	-937	18.0 5	80 657	9.88	-475	28.0 3
2015	-20 501	17.1 9	...	27.6 9	- 4973	32.8 4	0	17.6 6	-938	17.5 5	1245 84	10.2 4	-508	26.0 7
2016	-9 346	15.4 2	0	25.4 1	-2 994	27.4 9	0	15.2 6	-936	17.7 3	1861 82	10.8 4	-161	23.7 2
2017	-14 904	13.6 2	-2 255	20.5 3	294	30.3 4	0	13.4 8	-937	16.0 8	1303 80	10.8 2	163	22.3 8
2018	- 15 0 27	12.3 0	0	18.4 18.4	-16 603	27.7 6	0	12.7 3	-937	15.1 9	3706 16	10.8 9	225	20.7 4
2019	-23 096	11.4 7	...	15.6 9	-25 919	25.0 7	0	10.3 9	-937	15.1 3	4034 04	13.6 7	-276	17.2 6
2020	-16 684	11.8 ...	...	15.8 7	2 821	25.4 6	0	9.01	-938	17.8 8	...	13.1 1	-755	16.5 5
Multiple R	0.1402		0.5067		0.3967		0.4355		0.2279		0.8112		0.4611	
R Square	0.0197		0.2567		0.1574		0.1896		0.0520		0.6582		0.2126	

Sources: Compiled by the authors on the data from Eurostat (2023d)

Note: \*net migration (number).

The findings of our investigation partly align with those of Škuflić and Vučković (2018). Our analysis has demonstrated a notable association between emigration levels, predominantly the net migration index, and unemployment rates in the nations under investigation. As per the evidence, the correlation was moderate (0.5067 for Bosnia and Herzegovina, 0.3967 for Kosovo, 0.4355 for Serbia, and 0.4611 for North Macedonia) and strong (0.8112 for Turkey). It has been observed that the prevalence of emigrants over immigrants leads to a rise in the unemployment rate, ultimately resulting in a shortage of labour in these countries. Membership in the EU provides fresh employment prospects for individuals deserving of jobs in the European labour market. This could potentially reduce the outflow of citizens from the surveyed nations and contribute favourably to the unemployment rate. Analysis of correlation indicators and research by Zaiceva (2014) affirms that several other factors considerably affect migration and may arise as an outcome of emigration. Assuming that emigration is caused by an excess supply of labour within a specific country, rising emigration rates can reduce current levels of unemployment by redistributing the labour force. Moreover, this modification may potentially benefit salaries, notably for employees in regions with labour shortages due to migration. The outcomes of the research exhibit only limited correspondence with Zaiceva's (2014) findings due to the interrelationship amidst the factors. Nonetheless, its efficacy is limited in certain countries (especially Albania and Montenegro), proving that curtailing emigration does not ensure the attainment of low unemployment rates and has minimal impact on the nation's job market.

Our research affirms the perspective put forth by Pryimachenko, Fregert, and Andersson (2013) that "unemployment may result in emigration, but such migration can positively impact and alleviate unemployment," highlighting the interconnectedness of these elements. There are various limitations to the statistical separation of the effects of emigration and their assessment, which implies the limitations of our research. The development of the labour market is influenced by a significant number of factors, and as a result, membership in the EU does not guarantee stable, high employment levels.

Simultaneously, trend analysis suggests that favourable alterations in the unemployment rates are observable within the labour markets of EU accession states.

The trend analysis indicates favourable prospects for the labour markets of the countries under scrutiny. The activity and employment dynamics have been gradually improving,

especially within the 2010-2020 period, following their acquisition of candidate status or potential candidate. Despite this, the indicators continue to fall below the EU and member states' weighted average. Potential candidate countries (Kosovo, Bosnia and Herzegovina) and Turkey have the worst activity rates. The most common type of economic activity among enlarged countries is services, the share of which increased during the period under study in most countries and the EU. Also, many workers are employed in agriculture, forestry, and fishing, distinguishing the studied countries from other EU countries.

The study's findings confirm that a nation's entry into the EU substantially affects the level of joblessness, leading to a decrease. The results of the countries that joined the EU in 2004 (namely Estonia, Latvia, Lithuania, Slovenia, the Slovak Republic, Cyprus, the Czech Republic, Hungary, and Poland) and those that joined in 2007 (such as Bulgaria and Romania) are in line with the findings of the International Labour Organization's (2016) review, which reveals that changes in the labour market of individual nations are brought forth by external factors. However, it is apparent that EU membership cannot universally manage employment growth. Zaiceva's (2014) research highlights this; when the 2004 and 2007 countries joined the EU, there was economic growth and an increase in labour demand.

This led to a decrease in unemployment as there was more intense labour movement between sectors and states, ultimately requiring new personnel. The determination of the unemployment rate in 2004 and 2007 was predominantly driven by business cycle factors (Škuflić & Vučković, 2018). It would be imprudent to assert that the unemployment rate has decreased unequivocally. The rise in the employment rate is attributable solely to the country's membership in the EU. However, the operation of the labour market is influenced by a combination of economic and political factors, with EU accession being only one of them.

The presence of a close relationship between the level of unemployment and GDP per capita should be taken into account when developing a national policy for the development of the labour market in candidate and potential candidate countries since, with an increase in the level of employment, the indicator that reflects the prosperity of nations will increase. The findings from this investigation, concerning varying degrees of correlation between GDP per capita and unemployment levels among candidate countries and potential candidates, align with

the conclusions drawn by An et al. (2017), demonstrating the applicability of Okun's Law in advanced economies but its inapplicability in low- and lower-middle-income countries.

The trend analysis for 2021-2022 indicates a decline in unemployment within the EU and the candidate and potential candidate countries. Serbia is projected to reach the average EU level of unemployment in 2022, while Turkey is expected to experience a further increase in unemployment during 2021-2022.

The cluster analysis results confirm the presence of various trends and patterns of labour market development for the candidate countries and potential candidates during the studied period. Due to its prominent features, Turkey occupies a separate cluster during the studied period. Albania, Serbia, Montenegro and North Macedonia achieved common approaches regarding the unemployment rate and GDP per capita. Kosovo, Bosnia and Herzegovina, potential candidates, have similar features regarding the studied indicators and their relationship.

Our analysis of Turkey is consistent with the findings of Dayıoğlu and Aydın (2020), who observed an inverse correlation between growth and unemployment in Turkey, particularly during times of crisis. Additionally, the International Labour Organization (2016) recognises Turkey as a country with non-standard employment practices.

When considering the development of the labour market in Turkey as a potential EU member, it is crucial to objectively examine the correlation between inflationary processes and the market's trends. Despite its rapid industrial growth, Turkey's unrestrained inflationary processes are impeding its potential for a thriving labour market. We concur with Yildirim's (2015) research, which illustrates a correlation between labour productivity and inflation. This correlation is inverse and stronger than the impact of real wages on labour productivity. Additionally, the causal relationship between wages and productivity indicates a unidirectional causality that disrupts the constant interdependence of these indicators. Consequently, harmonising the Turkish labour market following EU standards, particularly when inflation rises, becomes increasingly challenging.

This study focuses on countries with economies in transition and developing countries, as these nations have unique labour market developments. Our results confirm significant features in the labour market of candidate and potential candidate countries, as most are classified

by the United Nations (2021) as transition economies, including Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, and Serbia.

In developing countries, particularly those seeking EU membership, monetary policy has a significant impact on the labour market, productivity, activity level and employment (Assemien et al., 2019; Gomes et al. 2023). Monetary policy instruments play a crucial role in regulating market processes during macroeconomic instability. Labour productivity is responsive to fluctuations in both inflation rate and discount rate levels. Research conducted by Yildirim (2015) suggests that a managed reduction in discount rates has the potential to enhance labour productivity, particularly in larger business operations.

While monetary policy tools are customary in the regulatory activity of nations and have a broad influence on the labour market, innovations are a fundamental aspect of contemporary management practices and have a substantial impact on the development of human capital, the calibre of human potential and its efficacy at work. The innovative element of the labour market development strategy is being revised due to the impact of digitisation. Digital transformations are of great significance in developing nations; however, the pace at which innovations are adopted within labour markets is not as speedy when compared with that of highly developed EU member states.

Digitisation has a significant impact on human capital and labour productivity. The quality of human resources varies among EU member states and candidate states for membership based on differing levels of digital literacy and skills among citizens.

Considering this, the harmonisation of social policy in employment and human capital development should include steps towards fostering digital competencies and facilitating general adaptation to work in the digital space. Simplifying the process of integrating national labour markets into the European ones is possible by eliminating significant differentiation in the levels of digital personnel training. Aly (2022) conducted a study demonstrating a closely positive correlation between the digital transformation index and economic growth, labour efficiency, and employment in the state. Using innovations, particularly artificial intelligence, in the labour market brings significant advantages for developing countries. To obtain these benefits, it is advisable to address specific barriers, including:

- Firstly, adapting employees to work within the digital environment;



- Secondly, seeking additional financing sources to support technical transformations in national labour markets (Aly, 2022).

Digital literacy is an essential aspect of education. Moreover, it is agreeable with scholars that to enhance labour markets, interested authorities must focus on reinforcing the high-skilled labour market and increasing the education level and entrepreneurial activity (Liotti, 2022; O'Higgins and Pica, 2020). With adequate education, the workforce possesses the option of either being employed or self-employed. Ewing and Hendy (2021) focused on the significance of the level of qualifications and innovative qualities of the workforce while developing the job market in European nations. Ozgen (2021) examined the influence of diverse directions of regulatory policy on alterations in the labour market. They substantiated through empirical evidence that the state establishes the necessities for cultivating the economy and the labour market by influencing the labour market through innovation. Koster et al. (2011) demonstrated the repercussions of innovation on the labour market, which instigates growth in the demand for highly skilled labourers among nations. Thus, the greater the government's investment in cutting-edge technology and research, the more vibrant and active the job market will become.

The labour market development system may be altered by adopting an unemployment policy that aims to offer financial compensation and aid while encouraging labour resource growth and innovative potential among the population, as recommended by the International Labour Organization (2021).

Unfortunately, the innovative potential of candidate countries is weaker compared to highly developed EU states, primarily due to a set of barriers, including:

- In Kosovo (Retkoceri and Kurteshi, 2018): government policies and legislation.
- In Albania (Deshati, 2015): high economic costs for innovation, market instability and crises, poor copyright protection, and ease of copying innovations.
- In Serbia (Nikolic et al., 2015): society's unpreparedness for innovative transformations, insufficient awareness of the importance of innovation, particularly in the labour market, irrational state innovation support strategies, market restrictions, insufficient capital, non-innovative organisational culture, and inadequate stimulation of innovative activity.

The OMC is a crucial element among measures to harmonise the functioning of labour markets and employment policy in the EU. However, its effectiveness must be clarified due to the mild regulatory influence without European legislative regulations and mandated efforts (Eurostat Statistics Explained, 2023a). The OMC is effective if the aspirations and goals of the EU members are united. Therefore, it can only be considered as an additional element supporting the processes of adapting the labour markets of the new EU members to the already-formed market environment.

This approach facilitates the dissemination of best practices among Member States and promotes progress towards the EU's key objectives, such as enlargement policy. As part of the enlargement objectives, the candidate countries are required to enhance the quantity and quality of their data submitted to Eurostat. The primary objective is to supply standardized, superior data conforming to European and global benchmarks, which can aid in regulating, anticipating, and consolidating the job market in the European Union for current, candidate, and aspiring countries (Eurostat Statistics Explained, 2023b).

## **6. Conclusions**

There can be many reasons for the diversity observed across candidate and potential candidate countries' labour markets. Differences in the economic level, regulations, protections, historical conditions, sectoral composition of employment, etc., play an important role. Nonetheless, EU labour market policies and institutions also affect the speed at which the labour markets of the candidate and potential candidate countries adjust. Differences mean that EU labour markets will need time to absorb the large numbers of workers after EU enlargements. This process can be supported by reforms of employment protection, cohesion policy, legislation, and further efforts to enhance the flexibility of labour market regulations.

The sluggish recuperation following the financial and economic crisis in the EU and the increasing indications of surging unemployment propelled the European Commission to release a scheme of propositions regarding how employment policies interconnect with various other policy domains in favour of intelligent, viable, and all-inclusive development.

### *Practical implications*

Since the enlargement, nations will steadily enhance the amount and quality of their information for Eurostat. The results may function as a component of the employment policies coordination of the EU member states to attain shared labor market objectives, allowing for the traits of the candidate nations and potential candidates.

### *Limitations*

The research conducted is limited by the data used in the study, which includes only the indicators for activity level, employment, and unemployment found on the Eurostat website. These indicators were obtained through a survey method in accordance with EU legislation, principles, and practices adopted by all member states. Data from countries that are candidates or potential candidates are collected according to standardized principles. However, disparities in data collection and processing methods between the EU and World Bank methodologies may result in variations in the outcomes of the study if alternative information sources are used. It is important to note that results may differ when taking into account more extensive indicators. Furthermore, the selected time frame must be considered.

To examine the correlation between the unemployment rate and GDP in the chosen countries, we have selected the period from 2010 to 2020. Choosing a different period for the study may change the results. Third, these are selected countries. Since only EU member states, candidate countries and potential candidates were selected for the analysis, the outcomes may differ if a similar study were conducted using data from other countries.

### *Future research directions*

The further direction of the research is the study of individual scenarios of the development of the labour market for the Republic of Moldova and Ukraine, which received the status of candidate countries in 2022.

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## Appendix

Inflation rate in EU accession candidate countries and potential candidates (rate of change)

	Albania	Bosnia and Herzegovina	Kosovo	Serbia	Montenegro	Turkey	North Macedonia
2010	:	1.3	:	6.2	:	8.6	1.1
2011	:	4.4	:	11.2	:	6.5	3.2
2012	:	6.3	:	7.4	:	9.0	1.8
2013	:	4.8	:	7.7	:	7.5	2.7
2014	:	4.3	:	2.3	:	8.9	0.0
2015	:	-0.7	:	1.5	:	7.7	0.1
2016	:	-1.2	:	1.3	-0.1	7.7	0.2
2017	3.2	-0.5	1.5	3.3	2.7	11.1	2.1
2018	1.8	1.1	1.1	2.0	2.6	16.3	2.3
2019	1.7	1.3	2.7	1.9	0.5	15.2	0.7
2020	2.2	-0.3	0.2	1.8	-0.5	12.3	1.2

Sources: Compiled by the authors on the data from Eurostat (2023b)