

Danube Region Monitor “People and Skills”

Report 2022

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Content

- 1 The Danube Region: Population and Socio-Economic Performance
- 2 The data behind the Danube Region Monitor “People and Skills”
- 3 Objective I: Higher Employment Rate
- 4 Objective II: Improved Educational Outcomes and Relevant Skills and Competences
- 5 Objective III: Increased Quality and Efficiency of Education, Training and Labour Market Systems
- 6 Objective IV: Ensuring Inclusive Education and Training and Promoting Inclusive Labour Markets
- 7 Russian Invasion of Ukraine: Current implications for Ukraine and the Danube Region

The Danube Region: Population and Socio-Economic Performance

The Danube Region:

- ① 'Old' EU Member States – countries which joined the EU before 2004 (Austria and Germany: Bavaria and Baden-Württemberg)
- ② 'New' EU Member States – countries which joined the EU in 2004 or later (Bulgaria, Croatia, Czechia, Hungary, Romania, Slovakia and Slovenia)
- ③ EU (potential) candidate countries – Bosnia and Herzegovina, Montenegro and Serbia
- ④ EU candidate countries since 2022 – the Republic of Moldova and Ukraine: Chernivtsi, Ivano-Frankivsk, Odesa, and Zakarpattya

Referred to as European Neighbourhood countries in the Eastern Partnership initiative in the previous report.

- Population

- ① About 110.8 mn persons in 2020 and 110.3 in 2021, starting from about 112 mn persons in 2011

- ② Compared to EU27 with 442 mn in 2011 and 448 mn in 2021

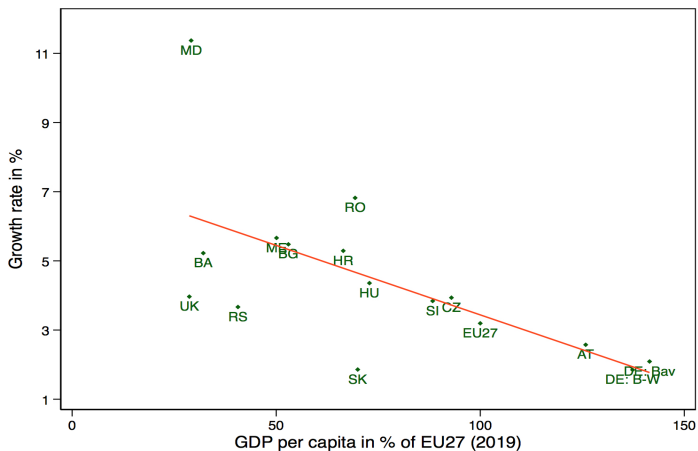
- GDP growth

- ① Danube Region: 2011-2019: 2.3% 2020: -5.5% 2021: 7.4%

- ② EU27: 2011-2019: 1.5% 2020: -5.9% 2021: 5.4%

- Convergence in GDP per capita

Higher growth rate in countries with larger gap



The data behind the Danube Region Monitor “People and Skills”

- Eurostat: EU LFS, EU SILC, EU SES
- OECD: PISA, PIAAC
- Other: ITU, UNECE, Worldbank, IEA (TIMSS)
- National Sources

Objective I:

Contribution to a Higher Employment Rate in the Danube Region, Especially Through Tackling Youth and Long-Term Unemployment

Aims of the Objective I

- Analyse the dynamics of six key labour market indicators over a period of 2011-2021 with a focus on convergence and divergence within the Danube Region, namely:
 - ① Employment rate
 - ② Unemployment rate
 - ③ Long-term unemployment share
 - ④ Activity rate
 - ⑤ Inactivity rate
 - ⑥ The Not in Education, Employment or Training (NEET) rate
- Evaluate current effects of COVID-19 pandemic on labour markets of Danube Region countries, particularly in the context of youth and discuss (potential) recovery of the labour markets from the crisis

Main results - Overall dynamic

- **The overall labour market situation** generally improved substantially in most of the Danube Region countries over the period of 2011–2019.
- The ‘new’ EU Member States have been gradually converging to the level of the ‘old’ Member States (Austria and Germany) and the convergence →
 - Convergence was most pronounced for Bulgaria, Czechia and Hungary where **unemployment and NEET** declined substantially and **activity rate** improved.
 - Serbia experienced a massive reduction in **unemployment**, including **long-term unemployment**, and a surge in **employment and activity rates**, which bring the country much closer to the EU-27 levels.

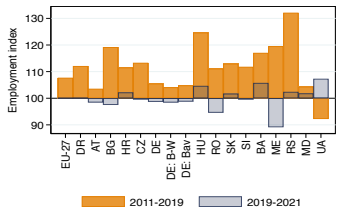
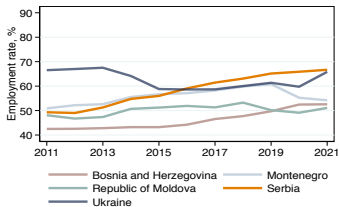
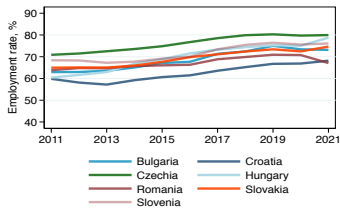
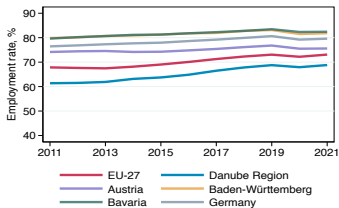
Main results - COVID-19 effects (I)

- **The effect of COVID-19 on the labour market in 2020 was very heterogeneous** across countries and seemed to be dependent to a large extent on the presence of various employment protection schemes.
- Montenegro, Republic of Moldova, and Ukraine appeared **most affected by the pandemic in 2020** in terms of employment decline and increases in inactivity rates and long-term unemployment.
- Labour markets have largely **recovered from the pandemic in 2021** in majority of the Danube Region countries, except for Bulgaria, Montenegro and Romania, where...
 - employment and activity rates in 2021 were far below the pre-pandemic levels
 - unemployment and NEET rates ranged above the pre-pandemic levels in 2021

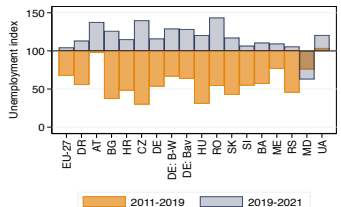
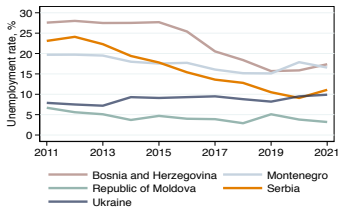
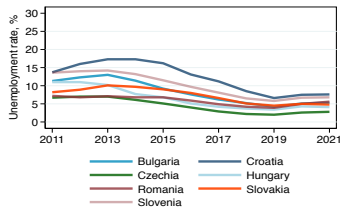
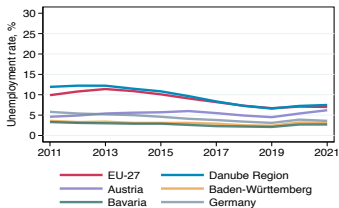
Main results - COVID-19 effects (II)

- A major persistent spur in NEET rates suggests that **employment of young people was heavily hit by the pandemic** and the negative effect may last longer than the economic crisis caused by the pandemic.
- **Labour shortages appeared very heterogeneous across sectors in 2021** due to uneven effect of the pandemic and varying post-pandemic recovery speed...
 - many workers who lost jobs due to closures, bankruptcies or employment cost reductions in 2020 may now need to find job in other sectors, which may require **extra training or re-education**

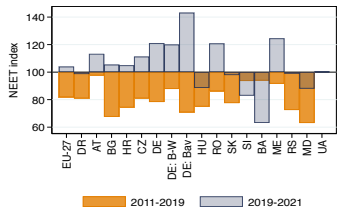
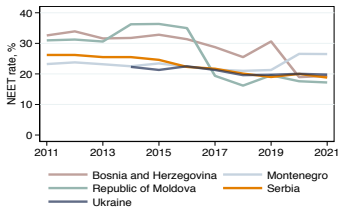
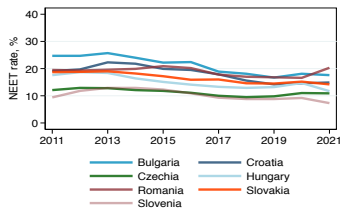
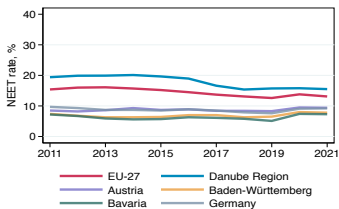
Employment rates and employment indices across countries for the population aged 20 to 64



Unemployment rates and unemployment indices across countries for the population aged 15 to 74



NEET rates and NEET indices across countries for the population aged 15 to 29



Recommendations

- COVID-19 pandemic has **widened inequalities in a number of key labour market indicators** across across EU Member States and other countries of the Region, **especially for youth** → policies should aim to facilitate post-pandemic stabilisation, particularly in the countries hit the most by the pandemic (Montenegro, Republic of Moldova, and *Ukraine*).
- **Sectors and occupations were unevenly hit by the pandemic** → various actions tackling employment recovery through additional training are needed. Such actions will help to:
 - Re-allocate the labour from the most affected branches, which faced major job reductions and very slow employment recovery (e.g. tourism and entertainment activities), to the sectors that were mildly affected by the pandemic (e.g. manufacturing, construction and public administration)
 - Foster quick employment recovery of the people who lost their jobs and prevent long-term unemployment increase.

Objective II:

Contribution to Improved Educational Outcomes and Relevant Skills and Competences in the Danube Region, Focusing on Learning Outcomes for Employability, Entrepreneurship, Innovation, Active Citizenship and Well-Being


Aims of the Objective II

- To analyse a number of key indicators related to improved educational outcomes and relevant skills of people in the Danube Region, namely:
 - ① Participation in pre-school education
 - ② Employment rates by educational attainment level
 - ③ ICT skills
 - ④ Proportion of population with at least upper secondary education
 - ⑤ Proportion of population with tertiary education
- Draw cross-region comparison with an emphasis on cross-country differences in education systems and public support of education.
- Evaluate the effects of the COVID-19 pandemic on educational outcomes and relevant skills.

Main results

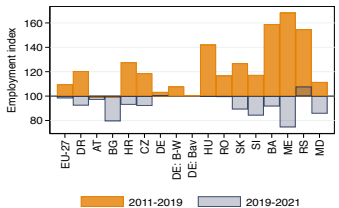
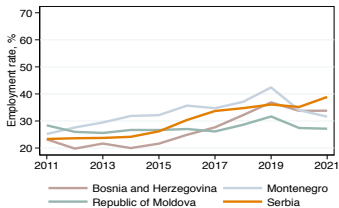
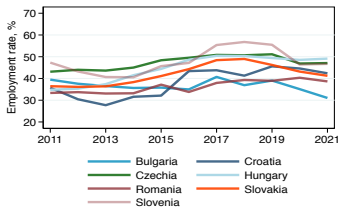
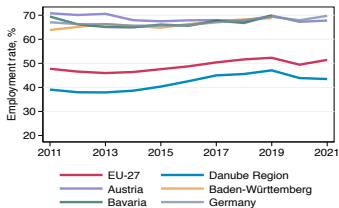
- Strongly heterogeneous educational outcomes despite overall improvements in 2011–2019
 - EU Member States have much better educational attainments compared to other countries of the Region, particularly in the context of **pre-school enrolment, ICT skills and the propensity to hold tertiary education**
- The **employment rate of people aged 20 to 24 holding at least upper secondary education** revealed a steady pattern:
 - The highest in ‘old’ Member States, followed by the ‘new’ Member States and then by EU (potential) candidate states and EU neighbourhood countries
- **Pre-school enrolment** was strikingly low in Montenegro, the Republic of Moldova and Serbia despite a major improvement in the former two countries.
- Croatia, Bosnia and Herzegovina, Bulgaria and Romania revealed systematically low **ICT skills**.
- The levels of **tertiary education** are lowest in Bosnia and Herzegovina, Montenegro, the Republic of Moldova, Romania and Serbia, yet the dynamics remained positive.

Main results - COVID-19 effects

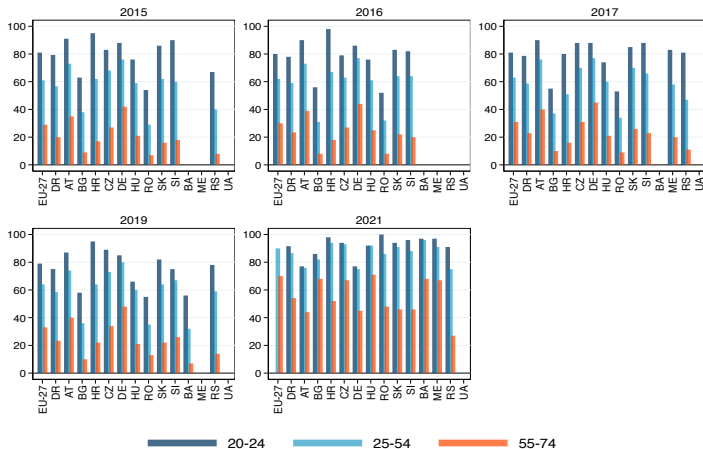
- **Youth with low- and medium- education appeared the most vulnerable** to employment distortions caused by the pandemic.
- **Employment rates of those holding at least upper secondary education worsened** during 2020 and the effect remained visible even in 2021...
 - Bulgaria, Montenegro, Republic of Moldova and Slovenia posted the largest decline
- Employment rates of **graduates with tertiary degrees appeared either unaffected or mildly affected** by the pandemic and reached the levels above 2019 in year 2021.
- The pandemic had a **positive effect on the ICT skills** in all countries and across all age groups.
- Medium-term consequences of the pandemic may include **an overall decline in education attainments, commitment and eagerness to continue education**, as a result of various disturbances in education process, interrupted social contacts and loosening of interpersonal connections throughout the pandemic.  wiiv

Employment of youth

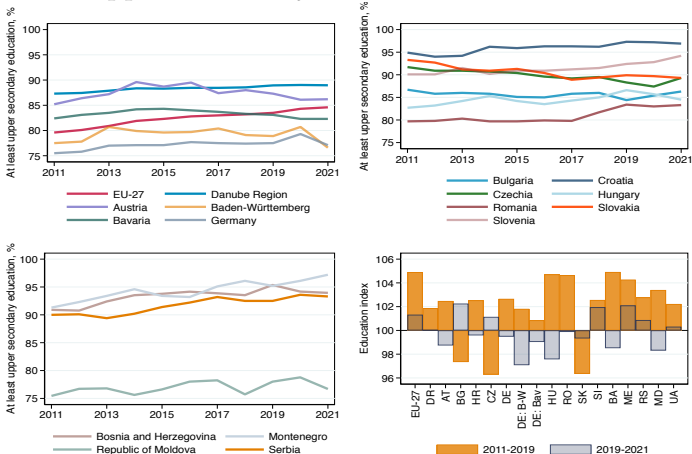
Employment rate of people aged 20 to 24 who have completed at least upper secondary education across countries



Share of population with basic or above basic overall digital skills by age groups across countries



Proportion of population aged 20 to 24 having completed at least upper secondary education across countries



Recommendations (I)

- Policy action towards **improvement of educational outcomes** needs to take the interrelation of all study levels into account → only those students who attained upper secondary education have a potential to obtain tertiary degree →
 - Actions at all levels of educational systems are required
 - Policy should aim at more inclusive and more accessible education
 - Emphasis on the development of hard and soft skills from an early age is needed
- Technological advancements → **a growing need for ICT specialists as well as an average increase in ICT skill demands** in other professions
 - ICT skills will be an essential part of the job profile for many jobs in the future
 - Improvements of ICT skills should be in the spotlight of educational policy on all education levels
 - Older workers need to acquire sufficient ICT skills via on-the-job and off-the-job training, which might be supported by governments

Recommendations (II)


- Revival of in-person teaching and gradual return to the normal education procedures may be **not sufficient to fully compensate for (potential) decline in educational achievements during the pandemic lockdowns** and to buoy up **motivation and commitment** of pupils and students.
- Additional actions may be needed to **pro-actively involve pupils and students in educational activities...**
 - Providing additional classes and trainings for those who fall behind in study outcomes
 - Acknowledging and promoting an immense importance of good educational record for the future career and well-being (especially in such turbulent and uncertain times)

Objective III:

Contribution to Increased Quality and Efficiency of Education, Training and Labour Market Systems

Aims of the Objective III

- To analyse key four indicators of quality of education and training over 2011-2021, namely:
 - ① Public expenditure on education
 - ② Private expenditure on education
 - ③ Distribution of teachers and staff
 - ④ Public expenditures in labour market policies (LMP)
- Evaluate the cross-region disparities bearing in mind cross-country discrepancies in economic performance.
- Assess the effect of the COVID-19 pandemic as of 2020
(the data for 2021 is not available for a number of indicators)

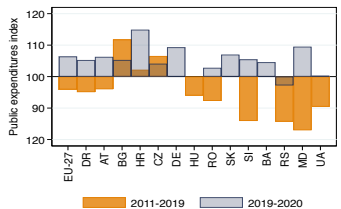
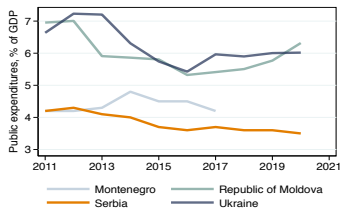
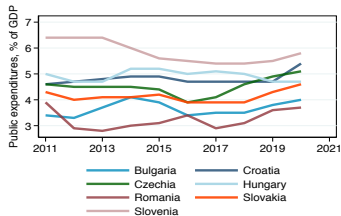
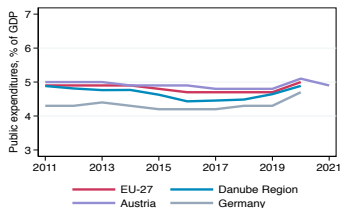
- Both **governmental and private expenditures on education** increased substantially in Croatia.
- Private expenditures grew unevenly across education levels in 2011–2019:
 - Austria and Slovenia - expenditure on pre-primary education raised dramatically
 - Bulgaria, Czechia and Slovakia - private expense on tertiary education increased
- **The share of pupils/students per teacher** in the Danube Region increased on all education levels, except post-secondary (both non-tertiary and tertiary) → growing pressure on the educational systems.
- Drastic cross-country differences in the absolute levels of **LMP funding** within the region:
 - Austrian government spent about 2% of GDP on LMP support in 2019
 - Romania and Serbia spent practically nothing in 2019
 - LMP funding declined in all countries, except for Austria and Bulgaria 

Main results - COVID-19 effects

- The governmental **LMP expenses increased drastically in 2020 in almost all Danube Regions countries**, but to very different extents (from a stark rise in Croatia and Slovenia to a practically 0 change in Bosnia and Herzegovina).
- Varying LMP expenses in 2020 are related to, above all, **implementation of various job retention schemes**(their extent, duration and exact coverage), as well as provision of **various trainings, re-education and re-qualification programs** for those who lost jobs due to the pandemic
- Public expenditures on education increased notably in 2020 in all countries except Hungary, Serbia and Ukraine, reflecting **the costs related to transition to online learning** (investment in IT infrastructure and development, as well as hiring additional specialists and technicians to set up and maintain the online study process).

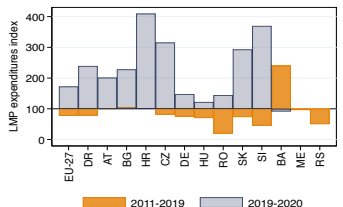
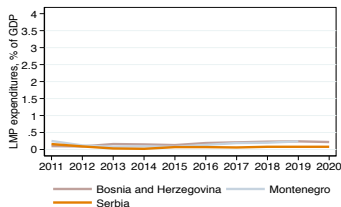
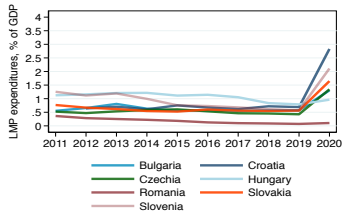
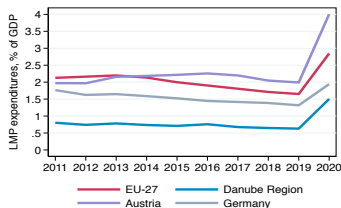
Public expenditure on education

Public expenditure on education in % of GDP for selected countries




Public expenditures on LMP

Public expenditure on labour market policies in % of GDP for selected countries



Recommendations

- **The rising share of pupils/students per teacher on the lower and medium education levels** in the region needs a policy response →
 - Increased workload per teacher
 - Less time for the teacher to spend on individual work with each student
 - Overall lower quality of education
- **An increase in LMP in 2020** is a positive trend, which has to receive further policy support:
 - LMP is an important tool to support the unemployed and other disadvantaged groups in their transition from unemployment or inactivity to employment
 - Well-organised and sufficiently funded LMP helps combat long-term unemployment and increase socio-economic well-being in the medium run
 - LMP appears crucial in the post-pandemic recovery - people who lost their jobs may need to acquire new skills to re-integrate into the labour market and find a job in a different sector and/or occupation
→ **LMP is a crucial tool to prevent mounting long-term unemployment**, as those who lost their jobs during the pandemic  wiiv may fail to find new ones and stay unemployed

Objective IV:

Contribution to Ensuring Inclusive Education and Training and Promoting Inclusive Labour Markets, Equal Opportunities and Non-Discrimination as well as Promoting Civic Competences and Life-Long Learning Opportunities for All

Aims of the Objective IV

- The objective aims to analyse education system and labour market from the perspective of inclusiveness, equal opportunities and non-discrimination, relying on eight key indicators:
 - ① Gender pay gap
 - ② Share of people at risk of poverty
 - ③ Inequality of income distribution – quantile share ratio and GINI index
 - ④ Performance of pupils in basic competencies (PISA test)
 - ⑤ Life-long learning (LLL)
 - ⑥ Share of early leavers from education and training
 - ⑦ Education equality – PISA index of economic, social and cultural status (ESCS) and TIMSS test performance
 - ⑧ Access to the internet
- Evaluate the effects of the COVID-19 pandemic and recovery pace in 2021 for the indicators with the data for respective years available.

- **Poverty and drastic income inequality** persist
 - EU (potential) candidate countries and neighbourhood countries have much higher poverty and income inequality than the 'old' EU Member States
 - Among the 'new' EU Member States Bulgaria and Romania had strikingly high risk of poverty
- Shares of **low-achieving students** have increased substantially in most of the countries, with the most striking jump in science → educational outcomes have declined
- Gender, immigration and socio-economic status **disparities in basic competencies** persist
 - Girls tended to have much stronger reading skills and lower mathematics abilities in all countries
 - Immigrant pupils have lower reading, mathematics and science skills (except for Hungary and Montenegro)
 - Pupils with higher socio-economics status performed much better in all domains in all countries without exceptions.

- The propensity to **leave school early** varied across the region
 - Bulgaria, Hungary, the Republic of Moldova and Romania appeared to have a remarkably high share of early school leavers, ranging far above the EU-27
- The Danube Region appeared extremely heterogeneous in terms of **LLL propensity**
 - ‘Old’ Member States having the highest shares of LLL along with Czechia and Slovakia
 - In all other countries in the region, the LLL was strikingly low
 - The COVID-19 pandemic reduced the LLL even further ← related to the overall drop in educational activities due to the social distancing measures and suspension of various training opportunities.
- **Internet access** has become more widespread in all countries of the Danube Region, with no exceptions, yet the ‘old’ EU Member States have the highest access rate in the region.

Main results - COVID-19 effects (I)

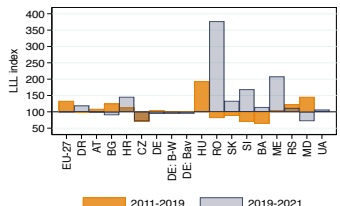
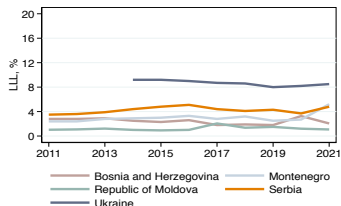
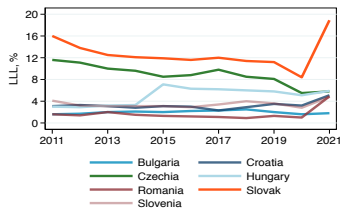
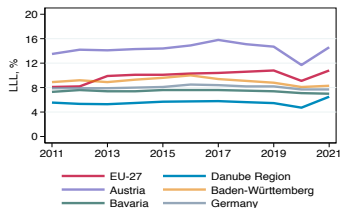
- The COVID-19 pandemic had, initially, **negative association with LLL activities**, most likely related to the overall decline in educational activities due to social distancing measures, suspension of various trainings and increasing childcare and home schooling needs.
- **LLL activities has largely recovered in 2021 and even exceeded the pre-pandemic level of 2019**, with the most notable increases recorded in Croatia, Montenegro, Romania and Slovenia...
 - Rapid recovery of LLL among adults is likely related to revival of various educational activities, which were terminated or put on hold in 2020
 - LLL may be a part of employment recovery programs, as those who lost jobs during the pandemic re-educate or acquire additional qualifications in order to find jobs.

Main results - COVID-19 effects (II)

- The effect of the pandemic on **the risk of poverty** was dramatically different across the countries...
 - The share of people at risk of poverty increased in Austria, Croatia, Germany, Hungary and Slovakia, yet dropped in Czechia, Romania, Bulgaria and Slovenia
 - Hence, in some countries, employment distortions coupled with damaging health effects of the pandemic reflected negatively on income levels, resulting to mounting risk of poverty in several countries.
 - Interestingly, share of people at risk of poverty increased in the countries where job retention schemes were implemented (e.g. Austria and Germany), suggesting that **workers targeted by the job retention schemes are not the ones facing the highest probability to live at the risk of poverty**
- **Internet access has become more widespread in all countries of the Danube Region**, with no exceptions, which appears to be essential for many areas of education, training and work during and after the COVID-19 pandemic.

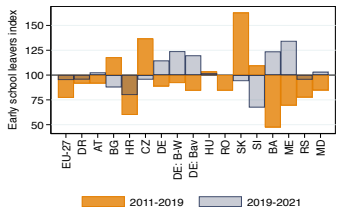
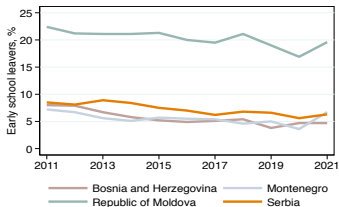
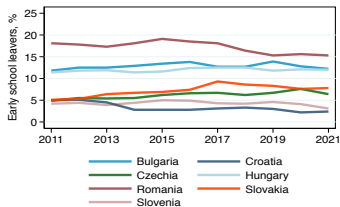
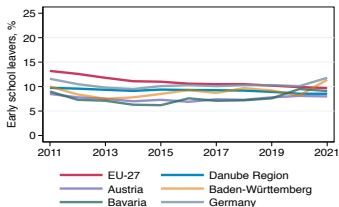
Life-long learning

The LLL – the share of individuals participating in education and training from 2011 to 2021 and the index change in LLL across countries for the population aged 25 to 64

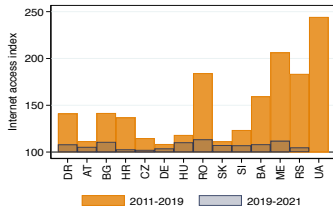
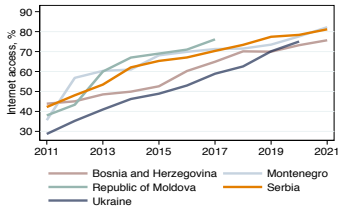
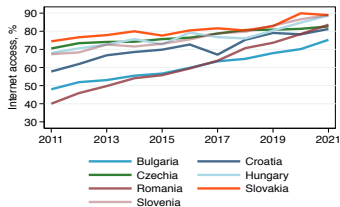
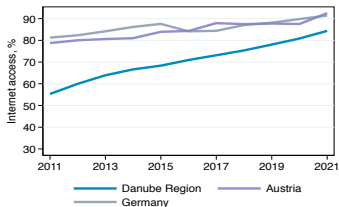


Early school leavers

Early leavers from education and training from 2011 to 2021 and the index change share of early leavers across countries for the population aged 18 to 24



Share of the population having access to the internet from 2011 to 2021 across countries



- Policy actions towards **strengthening students' commitment** to complete at least upper secondary education and providing additional **study support to low-achieving students and students from lower socio-economic backgrounds** are needed → early school leaving results in worse labour market outcomes and eventually increases poverty and inequality.
- In the post-pandemic times, **LLL appears as a key tool in combating long-term unemployment** through re-education and re-qualification of adults who lost jobs and seek employment in other sectors...
 - Some qualifications appeared in greater need, while others are of lower demand, thus LLL paves the way for labour market reintegration

- An increase of **internet access** in the Danube Region countries with lower income levels need policy action
 - Investments in infrastructure improvements
 - The reduction of costs related to internet usage
 - The improvement of the computer skills of the population in all age groups, particularly in rural areas
- The COVID- 19 pandemic showcased **the immense role of the internet in safeguarding employment, fostering education participation and staying connected with society** in the face of social distancing measures and lockdowns. → Internet access will remain equally important even in post-pandemic times
 - Some jobs may keep a (partial) remote mode
 - Online education sources gained immense popularity and proved very useful, especially for those who cannot participate in formal education programmes for various reasons.

Russian Invasion of Ukraine:

Current implications for Ukraine and the Danube
Region

Consequences for Ukraine (I)

- **Demographic implications:**

- The war fuelled enormous **immediate population decline** - mounting mortality among military and civilian population and outflow of war refugees
- **Long-term consequences**, mainly through a notable decline in life expectancy, possibly slow return of war refugee, declining birth due to an outflow of young women and due to economic hardship of the post-war reconstruction.

- **Economic consequences:**

- The damage to Ukraine's infrastructure caused by the Russian invasion was estimated at **USD 114.5 billion (or 58% of 2021 GDP)** as of September
- Over 420 enterprises had been **totally or partially damaged**
- The assets of the basic metals industry - one of the major industrial and key exporting sectors in Ukraine - had been **almost completely destroyed**

Consequences for Ukraine (II)

- **Labour market implications:**

- **Hundreds of thousands of jobs disappeared** due to either enterprises and infrastructure being ruined or wiped out, or due to employers cutting labour costs or facing bankruptcies.
- **Unemployment** stood as striking **30%** in August 2022 (internally displaced persons are disproportionately affected)
- Income level is steadily declining - around 70% of Ukrainians reported financial issues resulting from the war (according to the survey conducted by the National Demographic Institute)

- **Implications for education sector:**

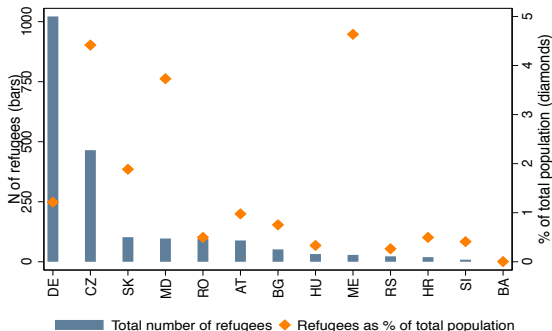
- As of November 28, **2783 educational institutions have been damaged by bombing and shelling**, with 337 of them are completely destroyed
- **Education system managed to rebuild and adjust to the wartime reality**, mainly by ensuring online education and equipping educational institutions with bomb shelters

Consequences for other Danube Region countries (I)

- Apart from direct economic implications (rising inflation, soaring energy crisis, etc.), **major effects for the Danube Region arise from the refugee inflow...**

Ukrainian refugees total (in thousands) and as a percent of local population

(as of November 15 - November 29)



Consequences for other Danube Region countries (II)

- Almost **7.9 million Ukrainians fleeing from Ukraine** from the beginning of Russian invasion, **over 2 million settled in the Danube Region countries** as of the end of November
- *How to integrate Ukrainian refugees socially and economically and how to ensure their unrestrained access to the education system and labour market?*

Labour market integration - factors to consider...

- **Return intentions** - 81% of all refugees intend to return home at some point in the future, but only 13% plan to do so within next three months

https://data.unhcr.org/en/documents/details/95767#_ga=2.5544499.1218543842.1663938030-518881478.1646318875

- **Demographic profile** - at least 70% of adults are women and over one third are children
- **Education** - Ukrainian population has, on average, higher education than EU-27 average and refugees are positively selected (in Austria the share of tertiary-educated refugees range as high as 83%)

<https://blogs.lse.ac.uk/europpblog/2022/09/07/>

[what-the-self-selection-of-ukrainian-refugees-means-for-support-in-host-countries/](https://blogs.lse.ac.uk/europpblog/2022/09/07/what-the-self-selection-of-ukrainian-refugees-means-for-support-in-host-countries/))

Labour market integration - challenges ahead...

- **Unlimited labour market access** for all refugees
- **Recognition of formal education credentials** (Ukrainian diplomas)
- **Finding jobs** which suit (i) own education/skills/experience, (ii) intentions to stay
 - **Short-term refugees** have no urgent need of stable employment and long-term income perspective in the host country - their needs are rather in very affordable temporary accommodation and state financial support
 - **Long-term refugees** require long-term housing and employment solutions, with the latter being essential for self-sustainment and capitalization of own skills and knowledge.
- **Re-education, re-qualification and additional training** (including language) should be (again) in the policy spotlight