



**EUROPEAN
DEPARTMENT**

European Labor Markets and the Covid-19 Pandemic: Fallout and the Path Ahead

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The views expressed in this presentation are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

Key messages

- ✓ Remarkable labor market recovery from the pandemic—EU unemployment rate at a record low
- ✓ Job retention schemes have been highly effective in mitigating job losses (keeping 4 million euro area workers in jobs)
- ✓ But labor market outcomes have been uneven across countries, sectors, and population groups; and concerns about some labor market scarring remain.
- ✓ The pandemic is likely to have further accentuated pre-crisis trends, which were already expected to result in significant reallocation of workers
- ✓ For EA4, pandemic could result in 1.5 million fewer jobs being created by 2030 relative to 5 million additional jobs in the pre-pandemic baseline
- ✓ Significant reallocation policies will be needed to facilitate job-to-job transitions, minimize scars, and protect the most vulnerable
- ✓ Spillovers from Russia's invasion of Ukraine will likely reduce the pace of labor market recovery while also increasing labor supply

Outline

- **Crisis and Recovery so far**
 - Taking Stock: What happened during the crisis? Role of JRS
 - Remarkable but uneven labor market recovery
 - Recent trends in vacancies and labor shortages against broader indicators of labor market slack
- **What lies ahead? Macro forecasts and reallocation needs**
 - Unemployment forecasts using Okun's Law framework and a "shadow unemployment" approach
 - Illustrating potential labor reallocation needs
- **How can labor market policies help facilitate strong and inclusive growth?**
 - Designing labor market policies amid high uncertainty

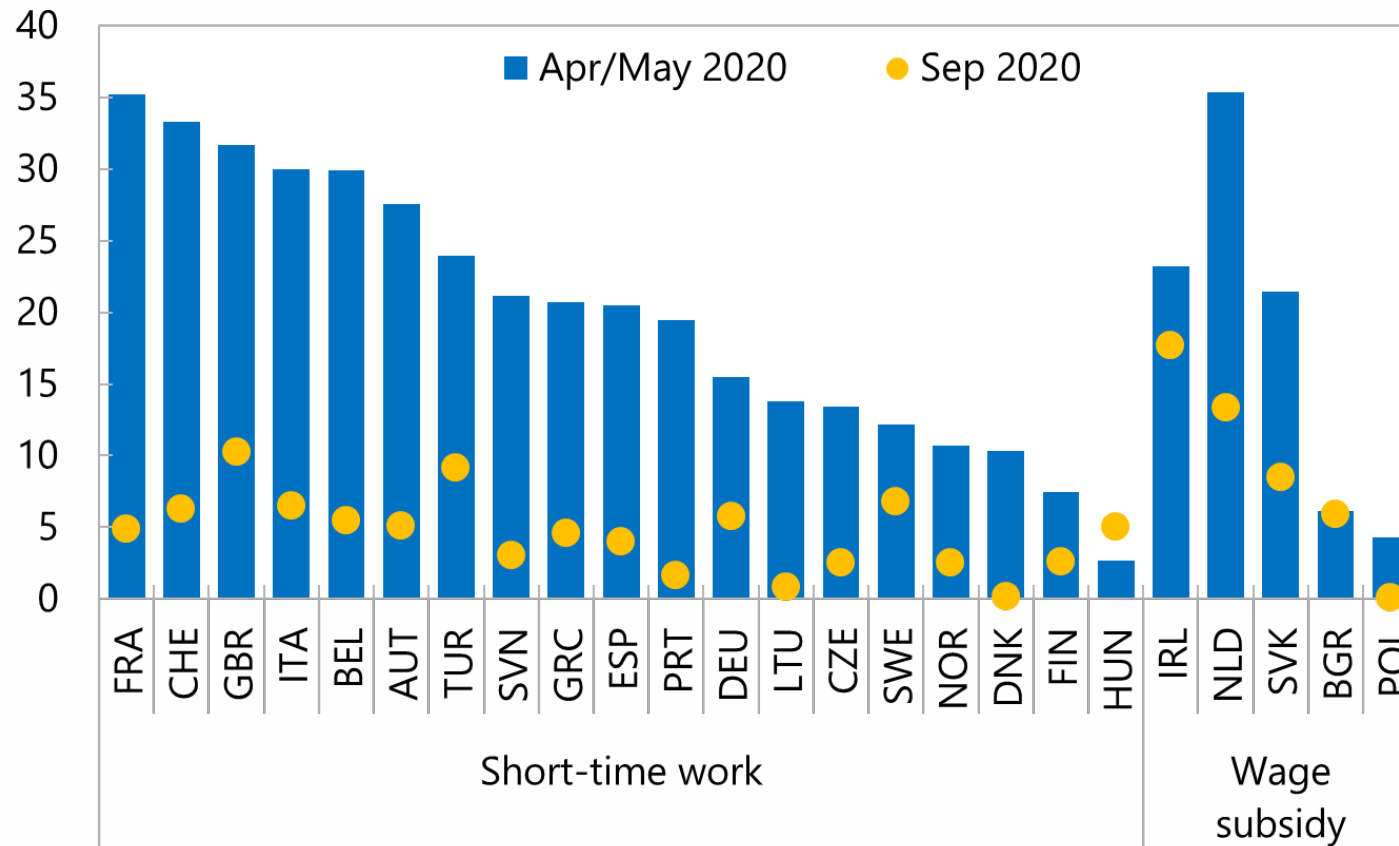
Crisis and Recovery so far

Taking stock: What happened during the crisis?

- Large decline in total hours worked and, to a lesser extent, in employment
 - Mostly explained by a substantial decline in average hours per worker, facilitated by high take-up of job retention schemes
- Severely-affected sectors used STW schemes and adjusted hours worked more intensively, especially in 2020Q2
- Reflecting the extraordinary policy support, the unemployment rate increased only moderately, although with a high degree of variation across countries, sectors and population groups
- A decline in labor force participation also curbed the increases in unemployment rates

JRS dialed up dramatically, but use has declined rapidly as containment measures lifted

Use of JRS in Europe
(Percent of dependent employment)

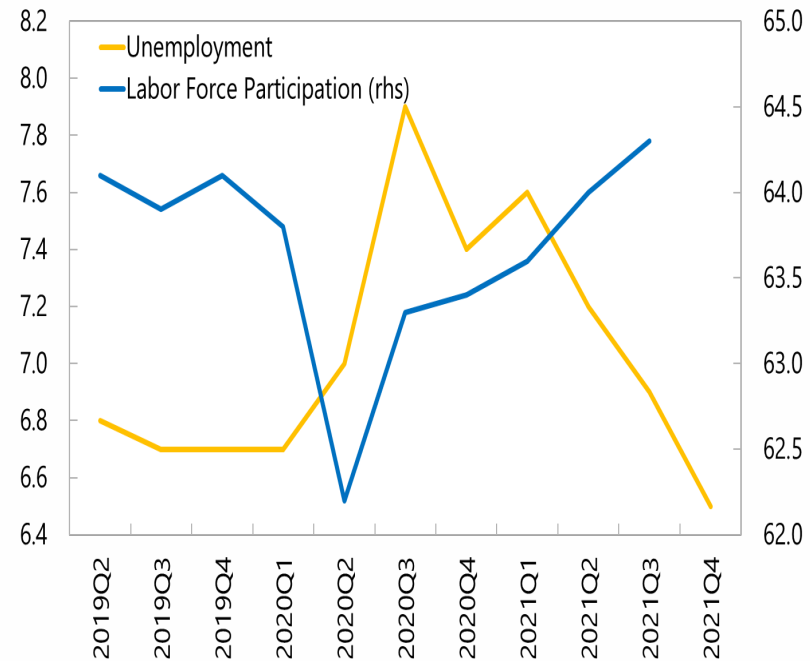


Sources: OECD; Bulgarian authorities; and IMF staff calculations.

Remarkable but uneven recovery so far

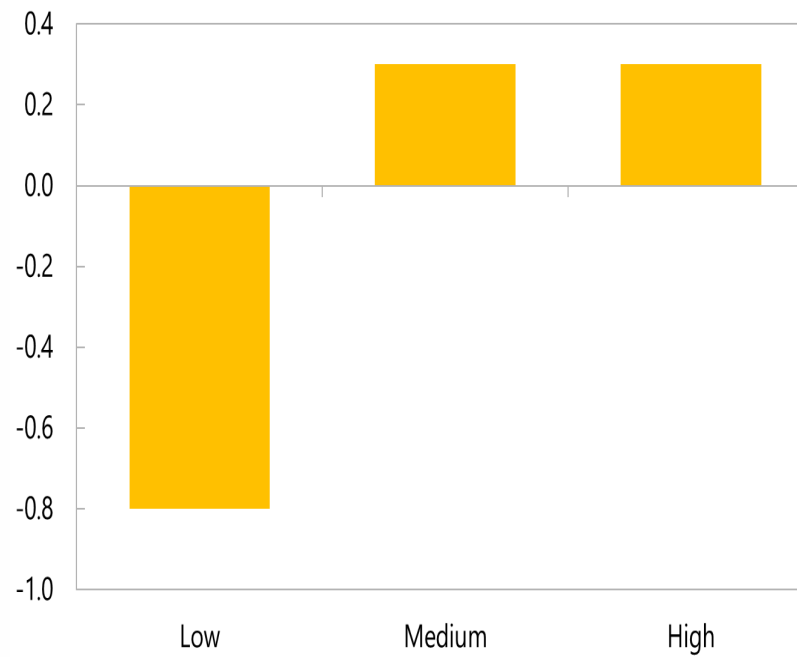
EU-27: Unemployment and Participation Rates

(Percent, seasonally adjusted)



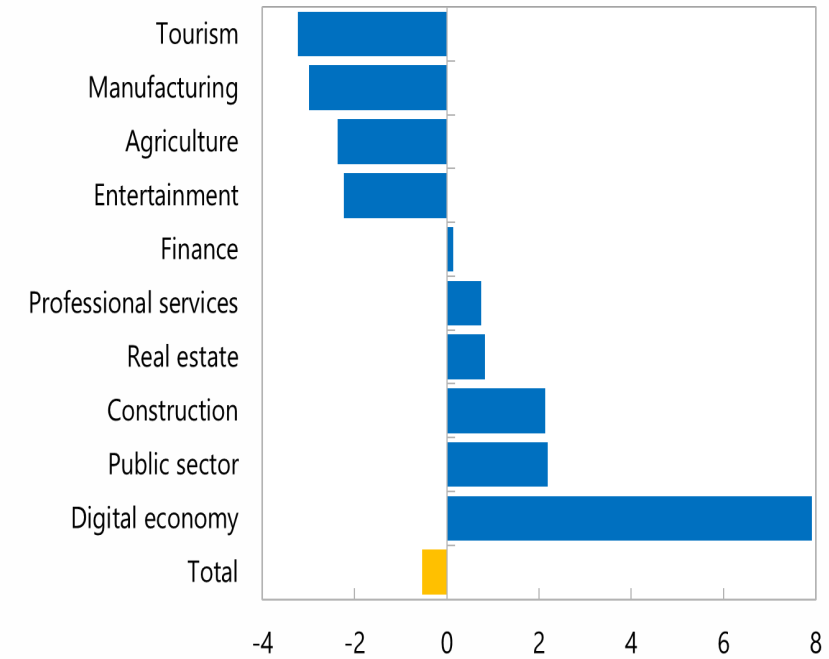
EU-27: Change in Employment Rate by Education Level, 2021Q3

(Percentage points relative to 2019Q4; 15-64 years)



EU-27: Change in Hours Worked, 2021Q4

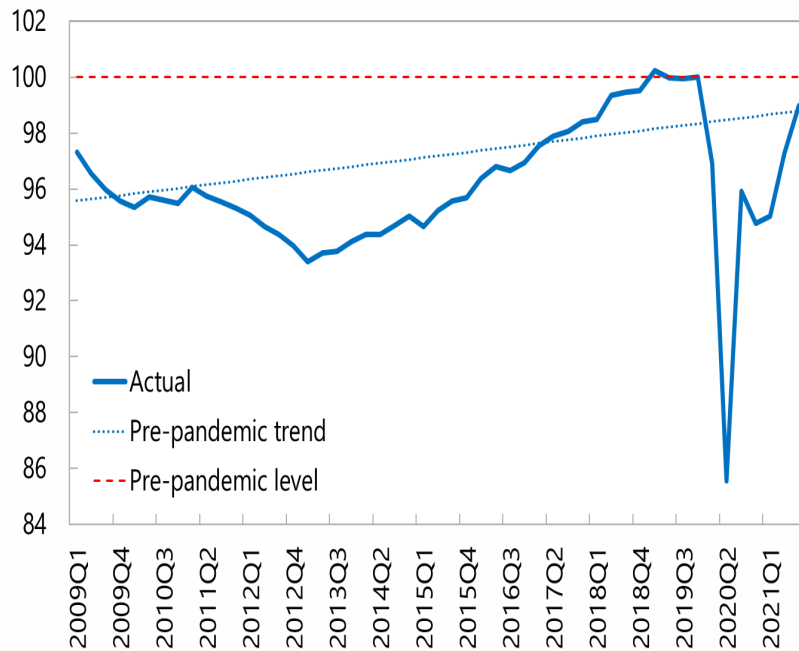
(Percent change relative to 2019Q4)



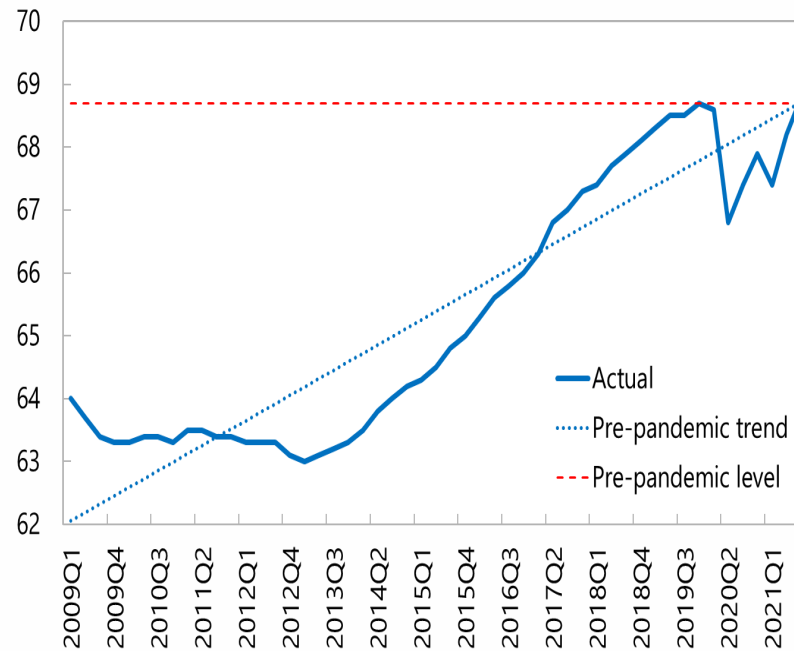
Sources: Eurostat; and IMF staff calculations.

And still remaining slack according to some indicators

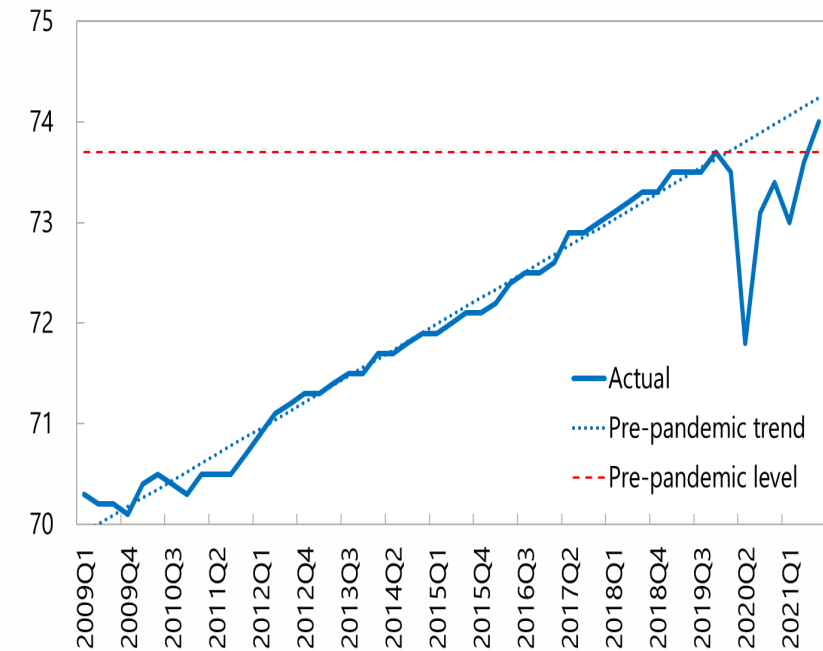
EU-27: Total Hours Worked
(Index, 2019Q4=100)



EU-27: Employment Rate
(Percent of working age population, 15-64 years)



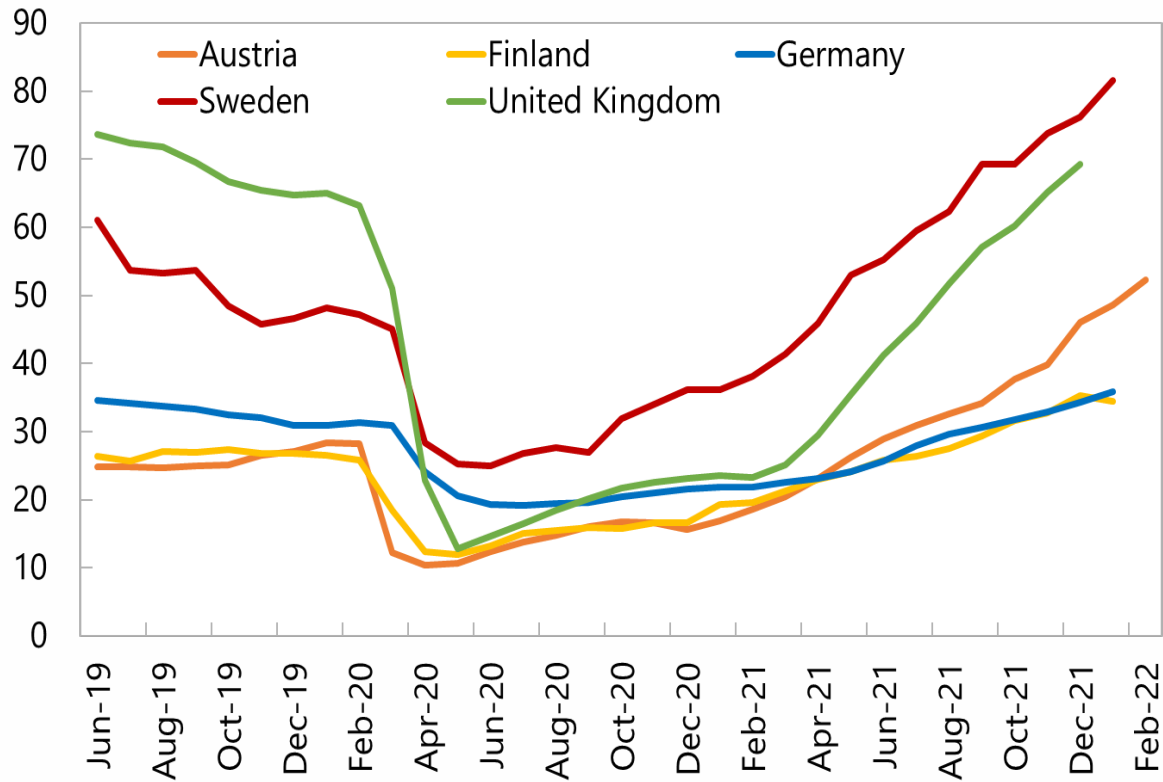
EU-27: Labor Force Participation Rate
(Percent of total population, 15-64 years)



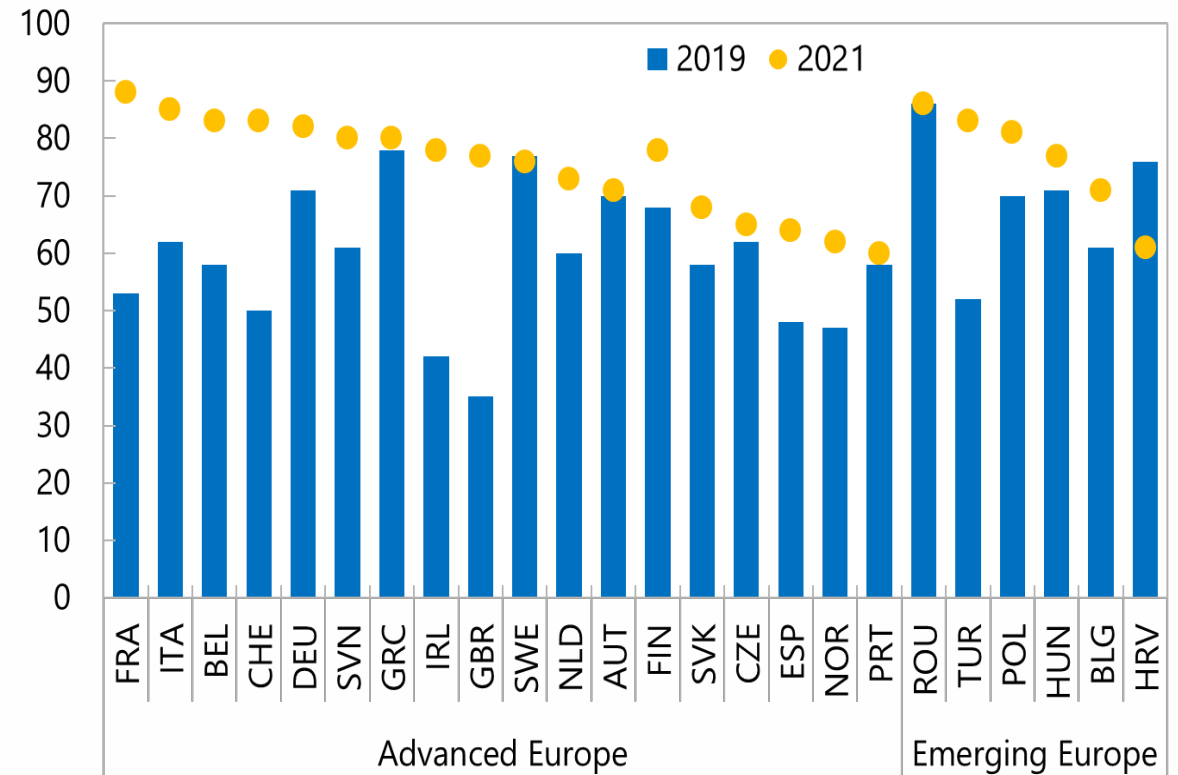
Sources: Eurostat; Haver Analytics; and IMF staff calculations.

But vacancies are recovering fast, and firms claim that there is a shortage of job seekers, especially in AEs

Market Tightness (V/U)
(Percent)



Firms that Report Having Difficulties to Fill in Jobs
(Percent of total surveyed firms by country; 2019Q3 and 2021Q3)



Sources: OECD; Manpower Group Employment Outlook Survey 2021Q3; and IMF staff calculations.

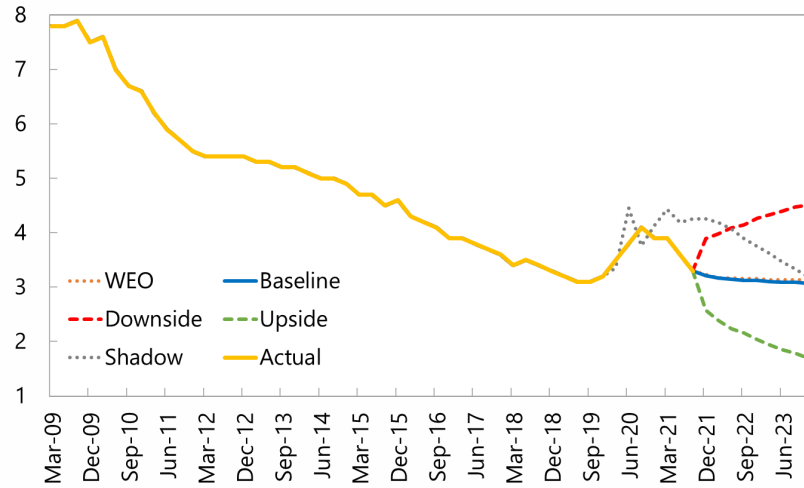
What lies ahead? Macro forecasts and reallocation needs

Unemployment Rate Forecasts

Using Jan WEO growth forecasts, some countries may face slight upward pressure in the near term as firms reduce their use of STW schemes

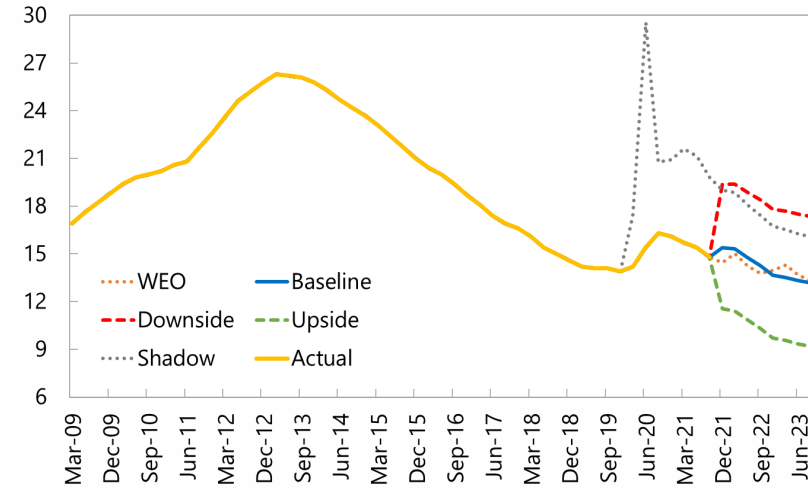
Germany

(Percent)



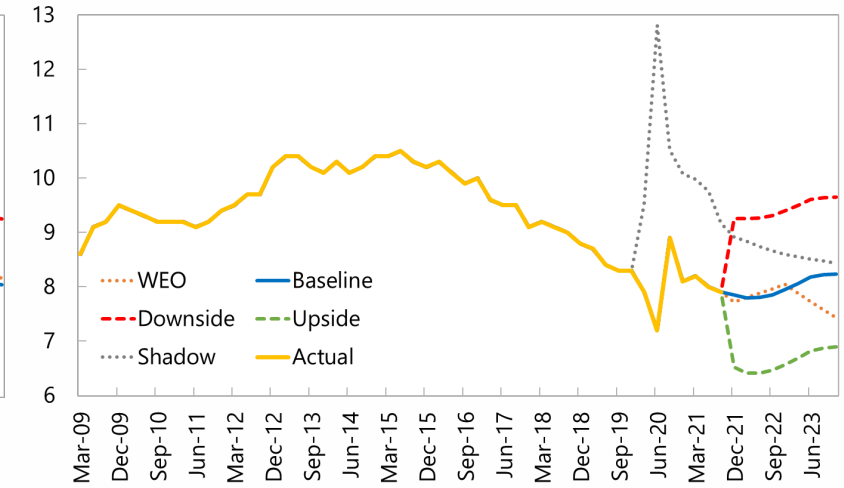
Spain

(Percent)



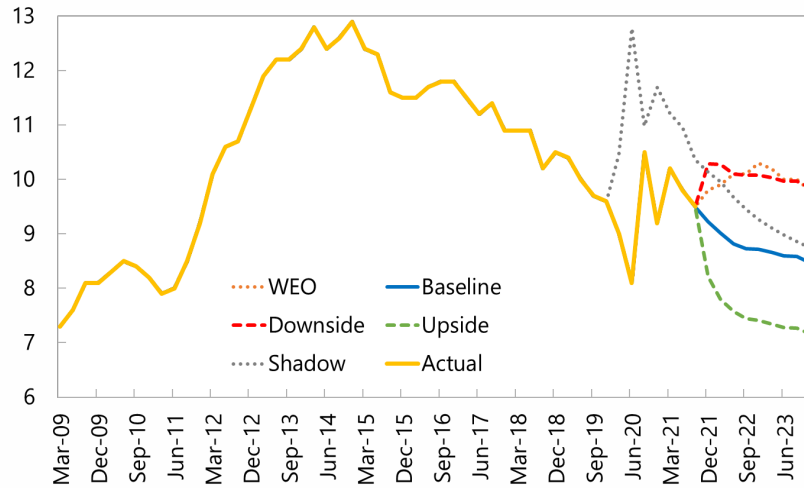
France

(Percent)



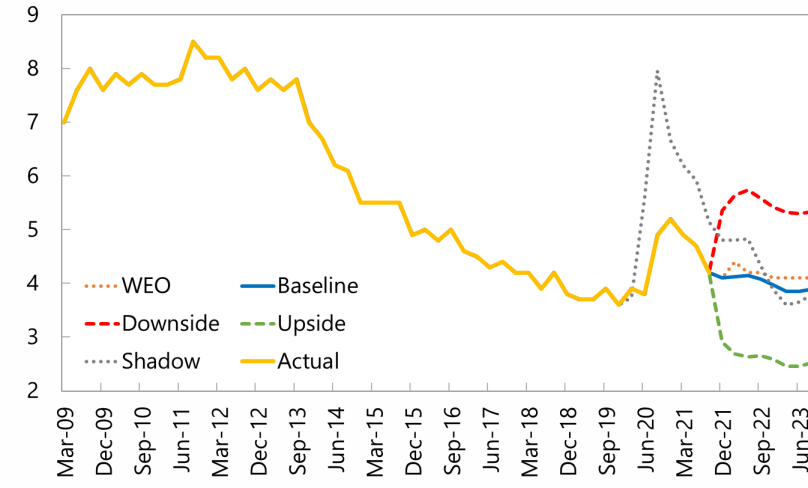
Italy

(Percent)



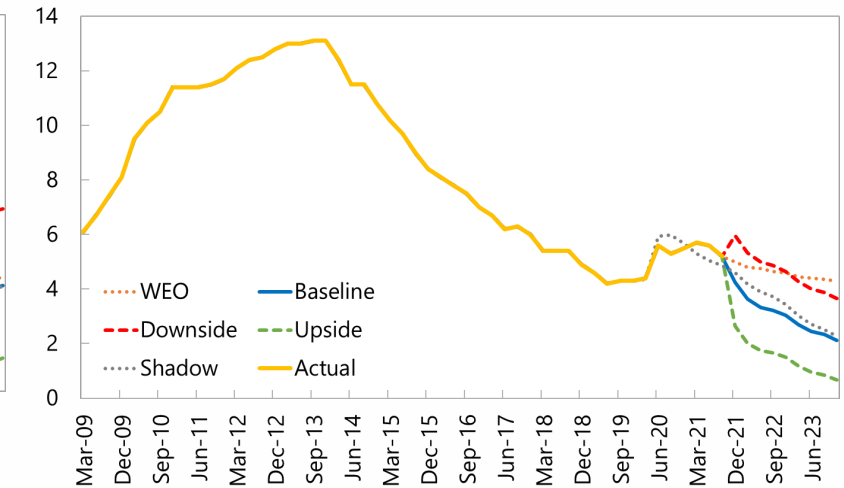
United Kingdom

(Percent)



Bulgaria

(Percent)



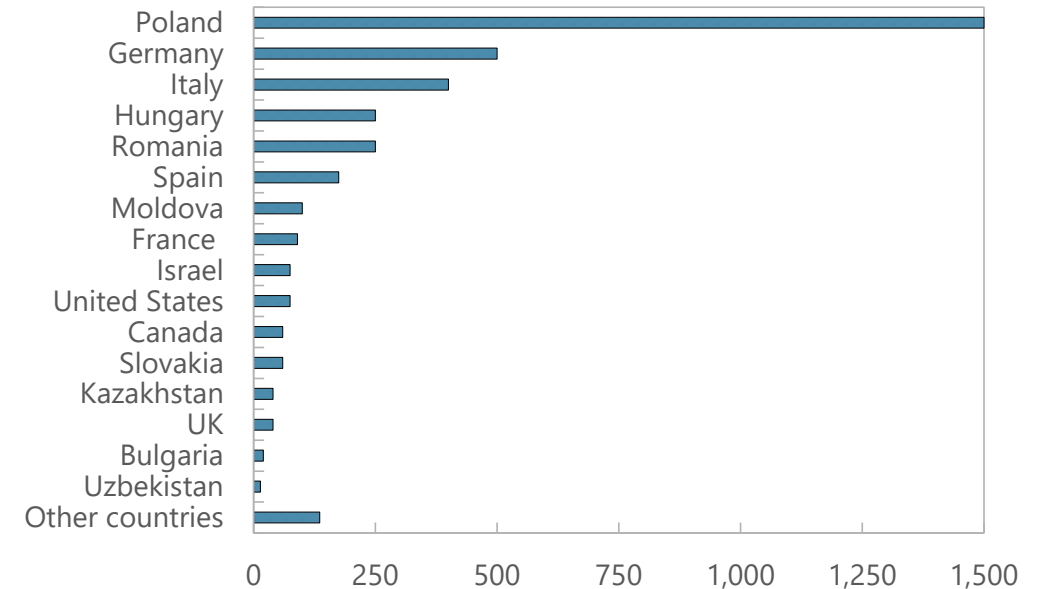
Sources: Eurostat; IMF World Economic Outlook; and IMF staff calculations.

Spillovers from Ukraine war will likely slow down labor market recovery while lifting labor supply

- The war has worsened growth prospects in Europe
- The deterioration in the macroeconomic outlook will be associated with higher unemployment in the near term in most countries
- Refugees will add to the labor force
 - ▶ Mitigating factor: prime-age males not allowed to leave Ukraine, so the pool of refugees comprises women, children and elderly

Projected refugees from Ukraine by mid-2022

(Thousand people)

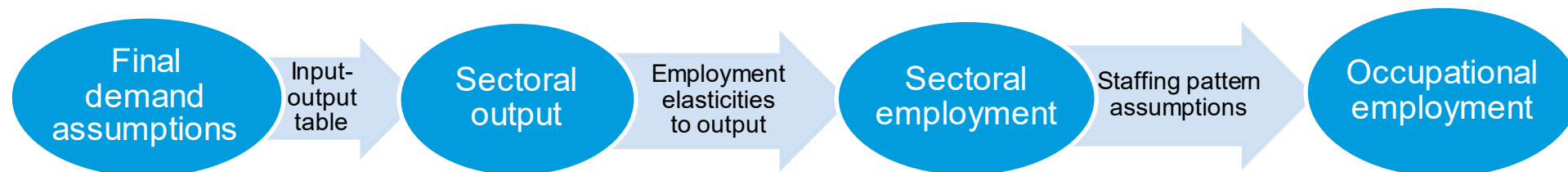


Sources: United Nations High Commissioner for Refugees and IMF staff calculations.

I. Methodology for Labor Reallocation Analysis

Scenario analysis: simulating potential labor reallocation needs using the U.S. Bureau of Labor Statistics (BLS) framework

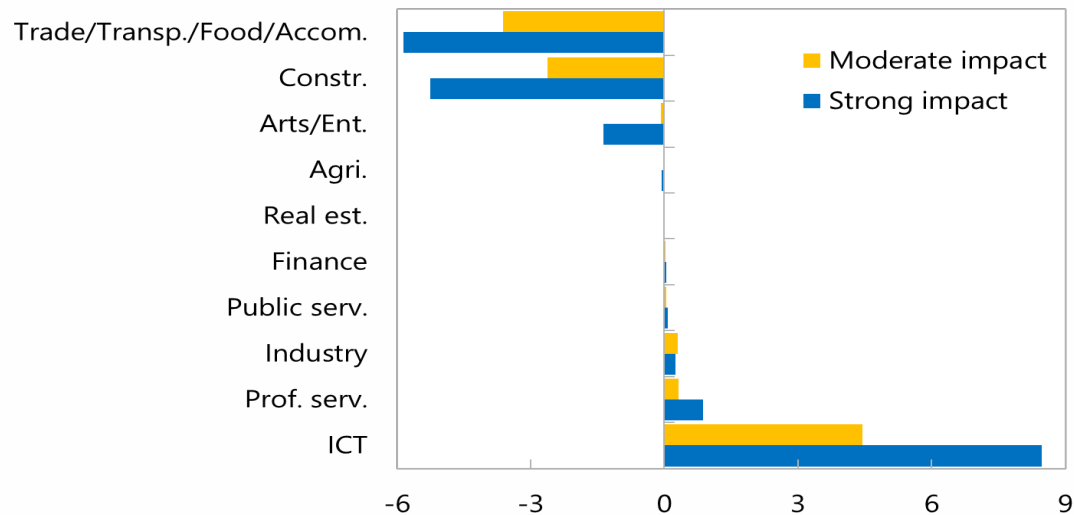
- Pre-pandemic baseline: projections from [European Centre for the Development of Vocational Training \(CEDEFOP\)](#)
- Post-pandemic scenarios:
 - Key assumptions
 - i. Consumers: preference for social distancing and better health services
 - ii. Firms: increased telework
 - Two scenarios: *moderate* impact and *strong* impact
 - Approach:



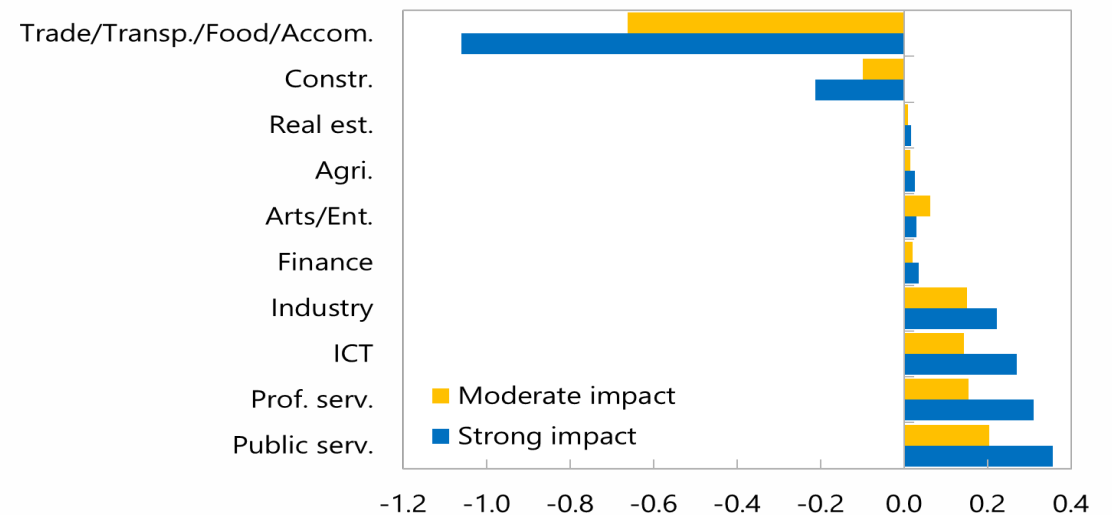
II. Results 1: *Sectoral Reallocation*

- Expanding sectors: public and professional services
- Contracting sectors: trade, food, accommodation, transportation, and construction

EA4: Difference in Employment *Growth* by Sector, 2018-30
Baseline vs Post-pandemic
(Percentage points)



EA4: Difference in Employment *Share* by Sector, 2018-30
Baseline vs Post-pandemic
(Percentage points)



Sources: Eurostat; Ice and Others; European Centre for the Development of Vocational Training (CEDEFOP, 2020); and IMF staff calculations.

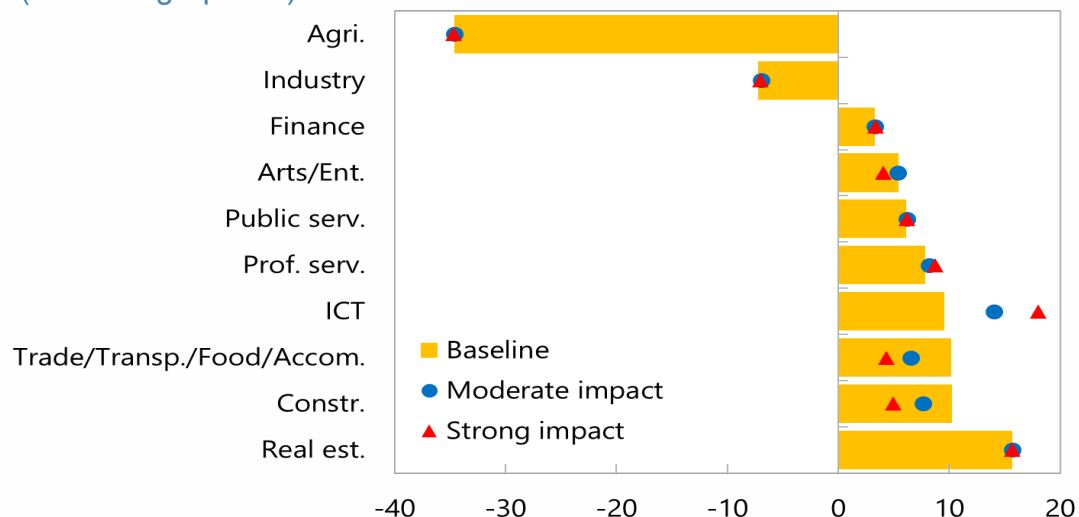
Note: Simple average of Germany, Spain, France, and Italy. Baseline long-term employment is based on CEDEFOP (2020) Skills Forecast data. EA4 = Germany, Spain, France, and Italy.

II. Results 2: Sectoral Reallocation

- The pandemic will likely reinforce the pre-crisis reallocation trends
- Pre-pandemic baseline: net job gains of about 5 million over 10 years
- Post-pandemic (relative to pre-pandemic baseline): 1-2 million job loss in contracting sectors vs. 0.2-0.5 million job creation in expanding sectors

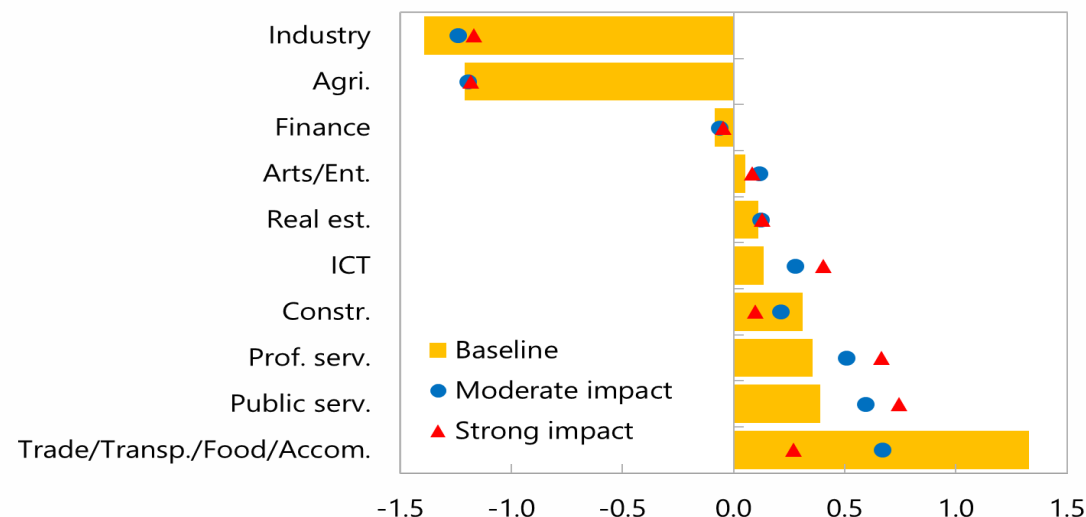
EA4: Percentage Change in Employment by Sector, 2018-30

(Percentage points)



EA4: Change in Employment Share by Sector, 2018-30

(Percent)



Sources: Eurostat; Ice and Others; European Centre for the Development of Vocational Training (CEDEFOP, 2020); and IMF staff calculations.

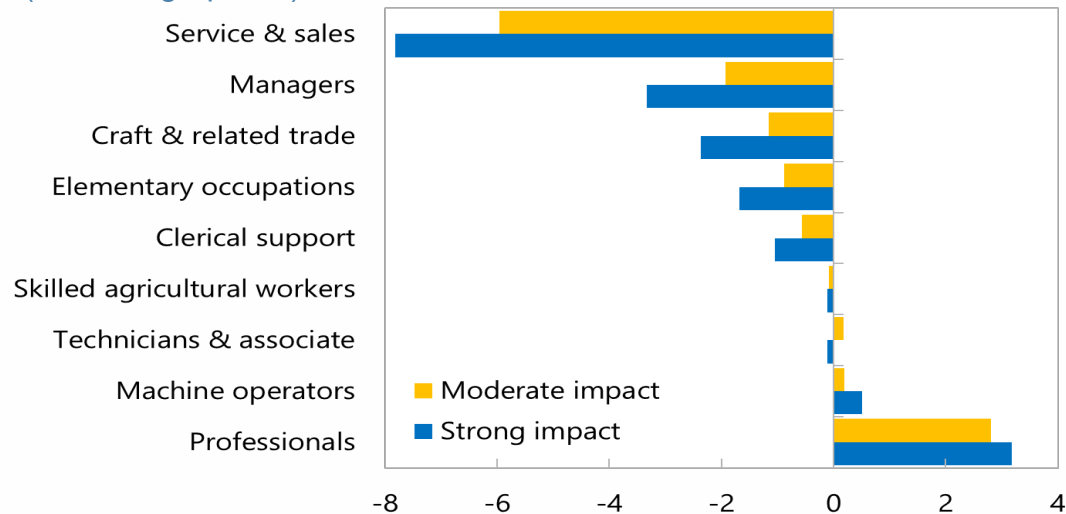
Note: Simple average of Germany, Spain, France, and Italy. Baseline long-term employment is based on CEDEFOP (2020) Skills Forecast data. EA4 = Germany, Spain, France, and Italy.

II. Results 3: *Occupational Reallocation*

- Expanding occupations: information and communication technology professionals
- Contracting occupations: sales and service workers

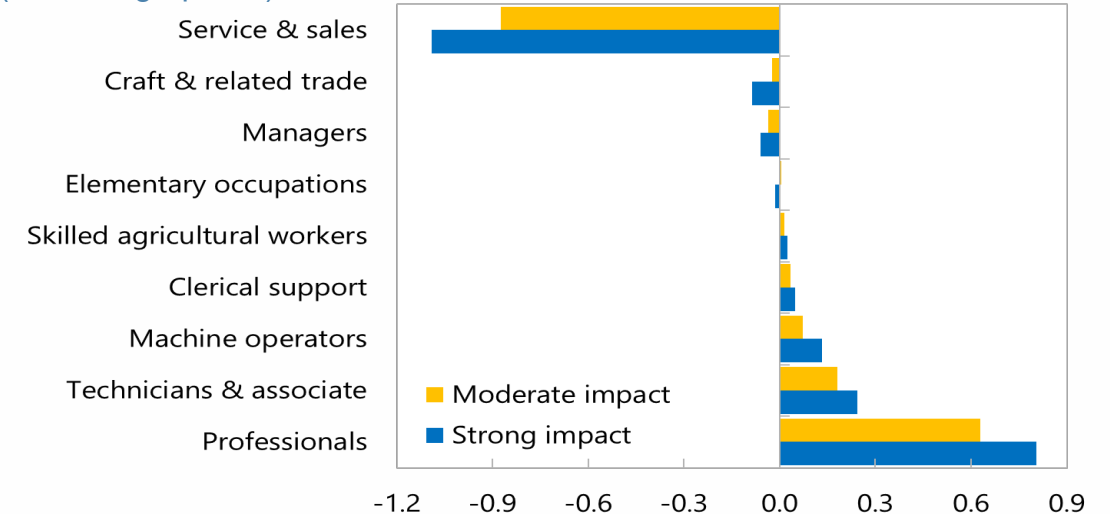
EA4: Difference in Employment Growth by Occupation, 2018-30 Baseline vs Post-pandemic

(Percentage points)



EA4: Difference in Employment Share by Occupation, 2018-30 Baseline vs Post-pandemic

(Percentage points)



Sources: Eurostat; Ice and Others; European Centre for the Development of Vocational Training (CEDEFOP, 2020); and IMF staff calculations.

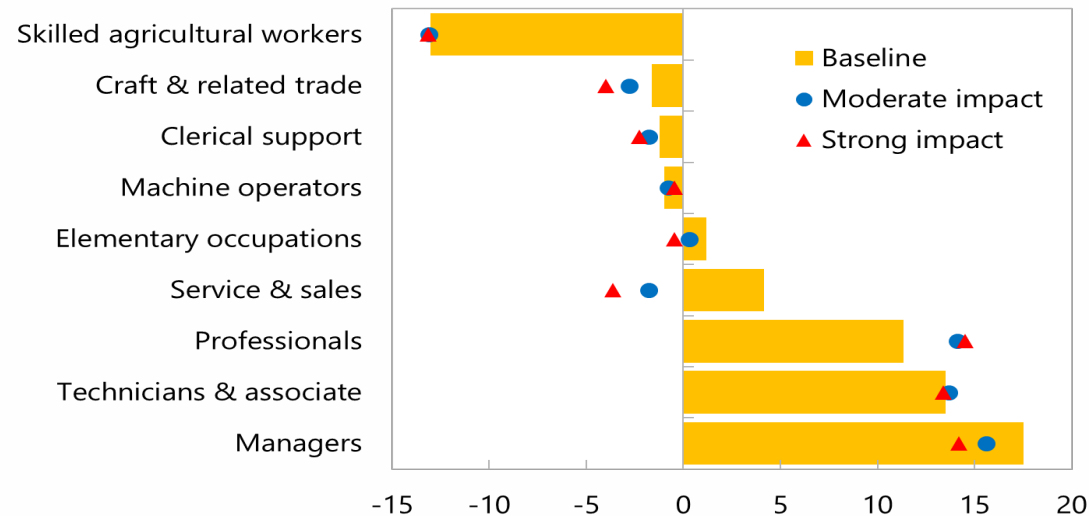
Note: Simple average of Germany, Spain, France, and Italy. Baseline long-term employment is based on CEDEFOP (2020) Skills Forecast data. EA4 = Germany, Spain, France, and Italy.

II. Results 4: *Occupational Reallocation*

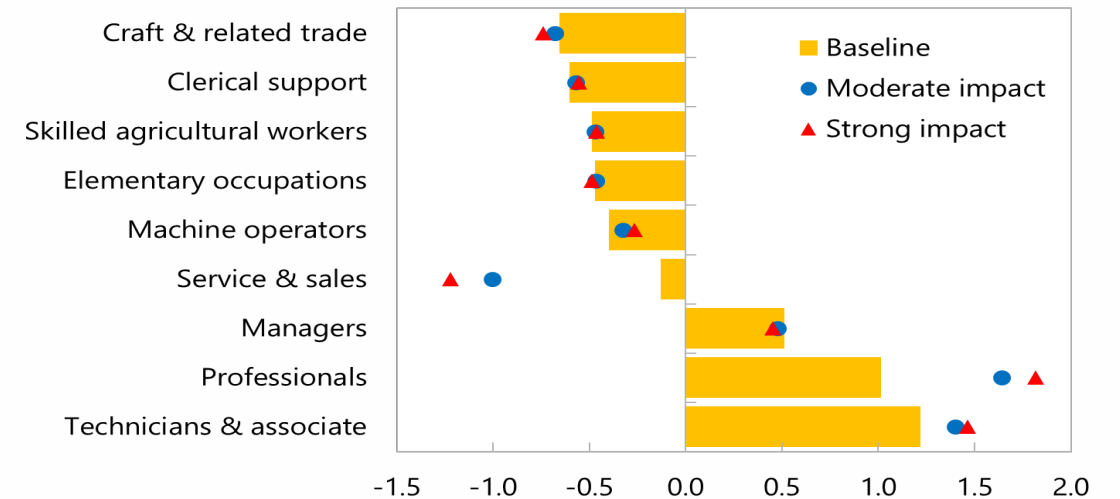
- Broad direction of occupational reallocation in line with the pre-pandemic baseline, except for hiring of service and sales workers

EA4: Percentage Change in Employment by Occupation, 2018-30

(Percentage points)



EA4: Change in Employment Share by Occupation, 2018-30
(Percent)



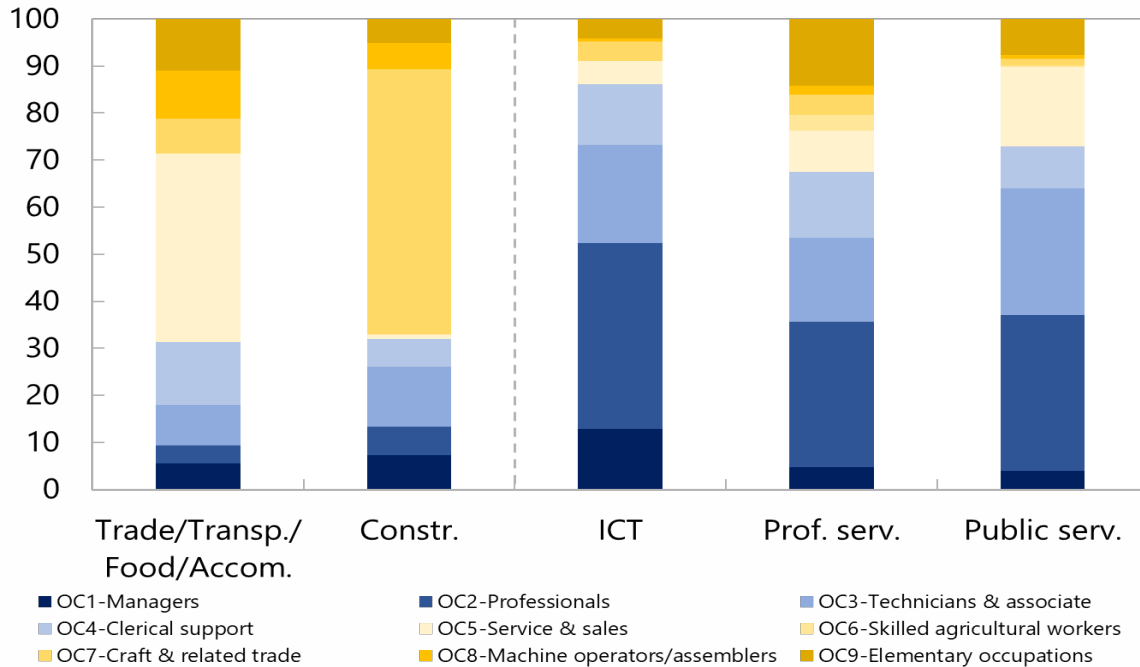
Sources: Eurostat; Ice and Others; European Centre for the Development of Vocational Training (CEDEFOP, 2020); and IMF staff calculations.

Note: Simple average of Germany, Spain, France, and Italy. Baseline long-term employment is based on CEDEFOP (2020) Skills Forecast data. EA4 = Germany, Spain, France, and Italy.

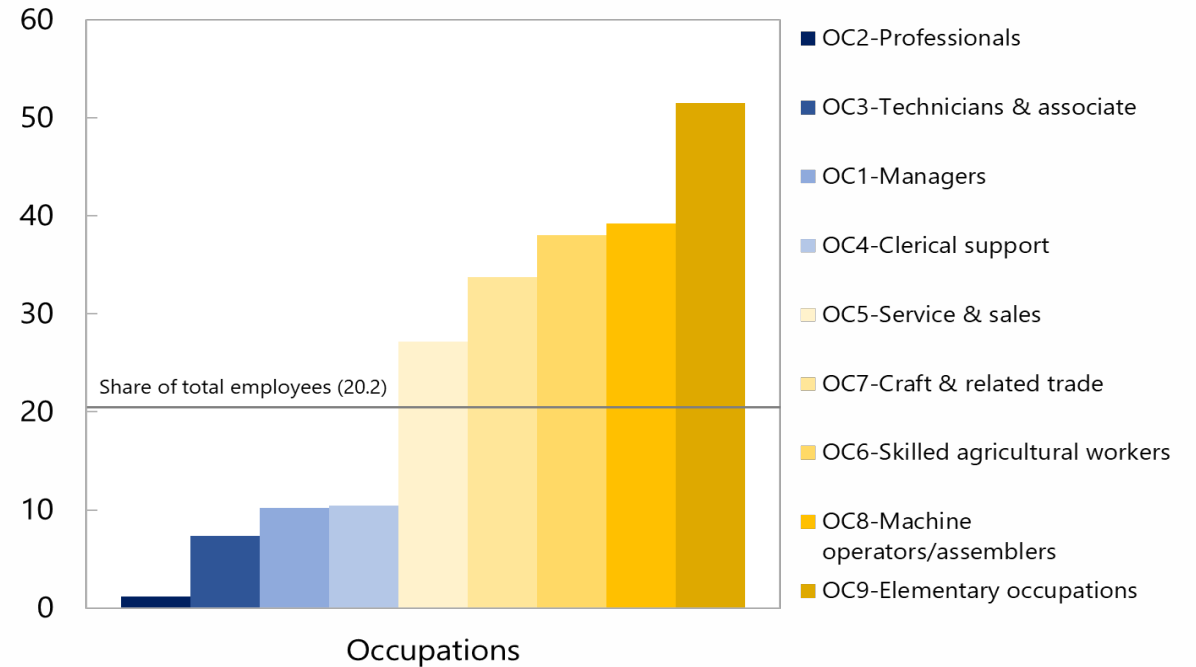
III. Occupational and Skill Mismatches

- Expanding sectors (relative to pre-pandemic baseline) tend to hire more skilled workers
- Contracting sectors tend to have a large share of low skilled workers.

EA4: Occupational Compositions in Selected Sectors, 2018
(Percent of total employees)



EA4: Share of Low-skilled Workers by Occupation, 2018 1/
(Percent of total employees)



Source: Eurostat.

1/ Share of workers with at most secondary education. Simple average of Germany, Spain, France, and Italy. EA4 = Germany, Spain, France, and Italy.

How can labor market policies help facilitate strong and inclusive growth?

Going Forward: Uncertainties and Priorities

Policy design is subject to exceptional uncertainty:

(i) What will the new normal look like

- Significant shift in labor demand across sectors and occupations due to change in:
 - Consumer preferences and spending behavior
 - Business practices and automation / AI
- Convergence of consumer preferences and work organization practices to pre-crisis trends

(ii) How fast the pandemic is resolved

(iii) Impact of Russia invasion of Ukraine

Policy Priorities Going Forward

ADJUST JRSs

- Target sectors still facing health related restrictions
- Scale back to pre-crisis level

FACILITATE JOB-TO-JOB TRANSITIONS

- Increase labor and product market flexibility
- Reskill and upskill
- Support job search and incentivize hiring and mobility

MINIMIZE SCARRING AND PROTECT THE VULNERABLE

- Support (re-) joining the labor force
- Rethink social protection

Appendix

Additional analysis in the Departmental Paper not covered in the presentation

- ❑ The Pandemic's Impact at the Macro and Sectoral Levels and Across Population Groups
- ❑ A Comparison of Dynamics in Advanced Europe Versus the U.S
- ❑ Drivers of Cross-Country Variation in Labor Market Outcomes (using Okun's Law as a vehicle)
- ❑ Sectoral Analysis of Okun Law and its Drivers
- ❑ Beveridge Curve During the COVID-19 Pandemic
- ❑ Take Up of Job Retention Schemes and their Fiscal Cost
- ❑ Experience from Past Pandemics

JRS preferred tool but different in AE and EE

JRS in Europe in the initial phase of the pandemic

		Pre-existing		JRS in place in Mar-Jun 2020			Pre-existing		JRS in place in Mar-Jun 2020	
		STW 1/	WS	STW	WS		STW 1/	WS	STW	WS
Advanced Europe	Austria	•		•		Latvia 3/			•	•
	Belgium	•		•		Lithuania 3/			•	•
	Czech Republic	•		•		Luxembourg	•		•	
	Cyprus				•	Malta				•
	Denmark 3/			•	•	Norway	•		•	
	Estonia				•	Portugal	•		•	
	Finland	•		•		Slovakia 3/			•	•
	France	•		•		Slovenia			•	
	Germany	•		•		Spain	•		•	
	Greece			•		Sweden	•		•	
	Iceland	•		•		Switzerland	•		•	
	Ireland 3/	•		•	•	The Netherlands 4/	•			•
	Italy	•		•		United Kingdom			•	
Emerging Europe	Albania				•	North Macedonia				•
	Bosnia and Herzegovina				•	Poland				•
	Bulgaria				•	Romania			•	
	Croatia 2/				•	Russia				•
	Hungary			•		Serbia				•
	Kosovo				•	Turkey 3/	•		•	•
	Moldova				•	Ukraine			•	
	Montenegro, Rep. of				•					

Sources: European Commission (2020); European Parliament (2020); OECD (2020, 2021); and IMF staff.

1/ There was no pre-existing WS. All WS introduced during the pandemic are temporary; 2/ Croatia subsequently replaced its WS with a STW; 3/ Denmark and Ireland complemented the pre-existing STW with a wage subsidy. Slovakia had a hybrid system. Latvia had a wage subsidy for tourism and export industry complementing a STW scheme. Turkey had a wage subsidy for minimum wage. Lithuania complemented in May 2020 its STW scheme introduced in March 2020 with a wage subsidy; 4/ The STW scheme was suspended and a WS that is proportional to the reduction in sales was introduced.

“Shadow Unemployment” Approach

$$u = \frac{\text{Unemployed}^{Shadow} - \text{Short Time Workers} - \alpha}{(\text{Participation Rate} \times \text{Working Age Population})} \times 100\%$$

- $\text{Unemployed}^{Shadow} \rightarrow$ Unemployment implied by Okun’s Law

$$\Delta u_t = \alpha + \sum_{i=0}^p \beta_i \Delta y_{t-i} + \sum_{i=1}^q \gamma_i \Delta u_{t-i} + \sum_{i=0}^p \delta_i D^R \Delta y_{t-i} + \epsilon_t,$$

where Δu and Δy are the change in the unemployment rate and the level of output growth respectively, and D^R is a dummy variable indicating if the economy is in a state of recession

“Shadow Unemployment” Approach

Baseline

α	Set so that the equation holds for the historical data
<i>Short Time Workers</i>	Reduction of STW usage linked to rebound in activity (except UK)
<i>Participation Rate</i>	Assumed to gradually recover to pre-crisis trends
<i>Working Age Population</i>	Population projections from Eurostat

Scenarios (upside/downside)

Shadow unemployment rate	Implied by Okun’s Law with upside/downside GDP growth paths
α	+/- 20%
Labor force participation rate	-/+ 1 pp (rates of transition from inactivity to unemployment assumed to be the same as in 2019)

BLS Scenario Assumptions

Table 1. Assumptions on Percent Change in Final Demand From Baseline in 2030 1/

Product code	Product label	Moderate	Strong
CPA_C21	Basic pharmaceutical products and pharmaceutical preparations	5	5
CPA_C26	Computer, electronic and optical products	5	5
CPA_C30	Other transport equipment	-5	-10
CPA_C31_32	Furniture and other manufactured goods	5	5
CPA_F	Constructions and construction works	-2.5	-5
CPA_G47	Retail trade services, except of motor vehicles and motorcycles	-5	-10
CPA_H49	Land transport services and transport services via pipelines	-5	-3
CPA_H50	Water transport services	-5	-10
CPA_H51	Air transport services	-5	-10
CPA_H53	Postal and courier services	13	30
CPA_I	Accommodation and food services	-7	-12
CPA_J58	Publishing services	3	5
CPA_J61	Telecommunications services	5	8
	Computer programming, consultancy and related services;		
CPA_J62_63	Information services	5	10
CPA_M72	Scientific research and development services	5	10
CPA_N78	Employment services		3
	Travel agency, tour operator and other reservation services and		
CPA_N79	related services		-15
CPA_Q86	Human health services		1
	Creative, arts, entertainment, library, archive, museum, other		
CPA_R90_92	cultural services; gambling and betting services		-9
CPA_R93	Sporting services and amusement and recreation services		-7
CPA_S96	Other personal services		-10

1/ The assumptions follow the same magnitudes of changes as in the BLS paper, except for constructions and construction works. The shocks in the BLS paper is applied to nonresidential constructions in particular. Since Eurostat does not have granular data on nonresidential constructions, we assume the sizes of the changes are half of those in the BLS paper.