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The European Recovery:
Policy Recalibration and Sectoral Reallocation

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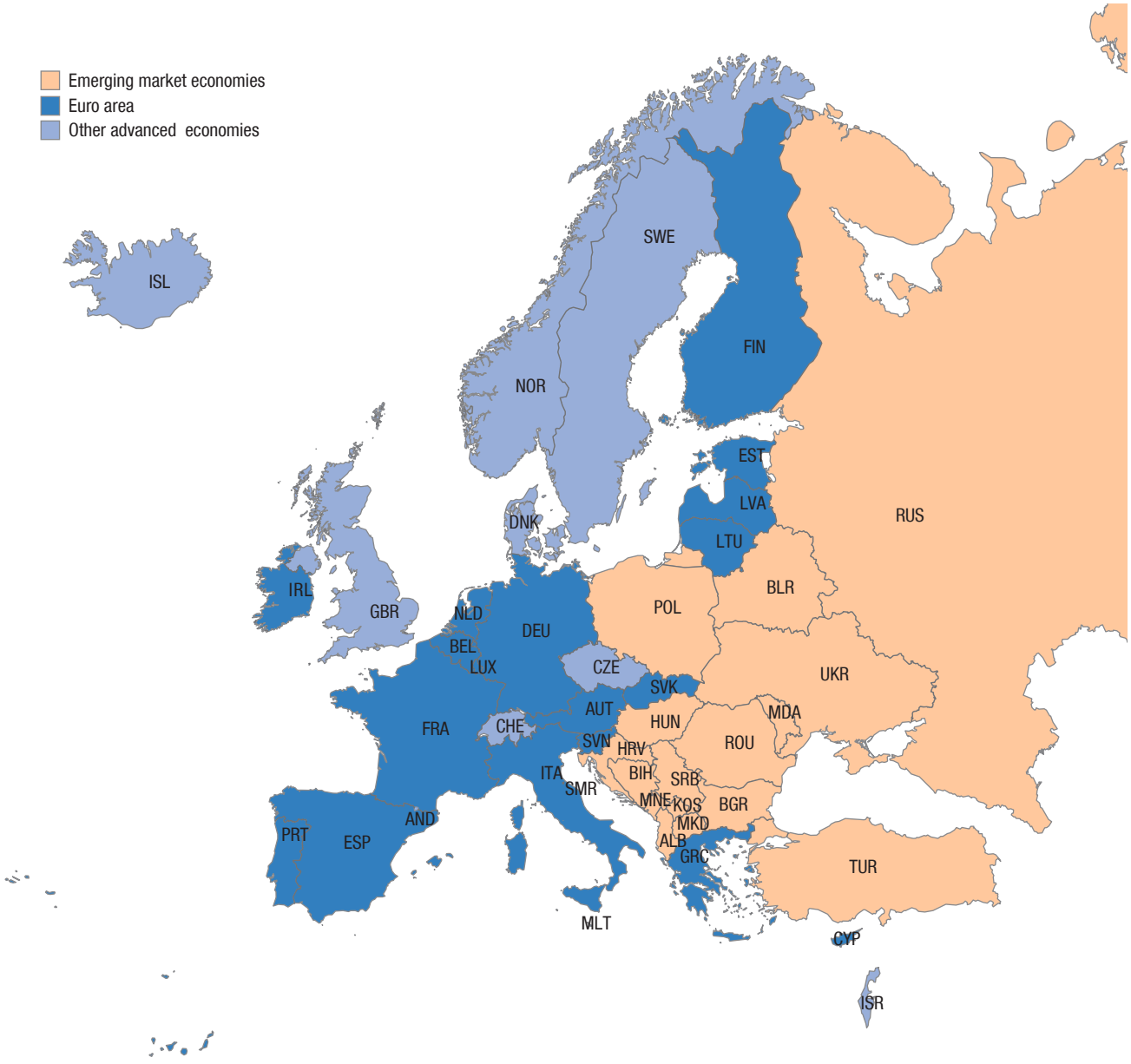


Executive Summary

An increasingly resilient recovery is taking hold in Europe, buttressed by gradual increases in vaccination rates and mobility. Strongly accommodative macroeconomic policies and COVID-19 support schemes have paved the way for the recovery by helping preserve employment relationships and protecting private sector balance sheets. However, uncertainty remains elevated, not least because of the risk of new infection waves and virus variants amid uneven vaccination rates across countries. It is therefore imperative to continue increasing vaccinations, notably in emerging European economies, and to strongly support international efforts to speed up vaccine access globally.

Advanced European economies are forecast to expand by 5.2 percent and emerging European economies by 6 percent in 2021, 0.3 and 1.1 percentage points higher than in the July 2021 *World Economic Outlook Update*. Chapter 1 explains that the recovery is expected to consolidate in 2022, with growth projected at 4.4 percent in advanced European economies and 3.6 percent in emerging European economies, while risks are tilted to the downside owing to potential virus mutations, prolonged supply disruptions, and high energy prices among others. The exceptionally strong fiscal support deployed in 2020–21 can be reoriented toward building forward better and scaled back to rebuild room for fiscal policy maneuver, while continuing to shore up the recovery. Chapter 2 explains the critical role that supportive policies played in mitigating the economic impact of the pandemic. The pace of withdrawal of fiscal support will therefore need to be carefully tuned to country-specific developments and guard against the risk of undercutting the momentum of the recovery. Monetary policy should generally remain highly accommodative as fiscal support is withdrawn, given that there are few signs of inflation translating into broad wage pressures. However, in some emerging European economies where activity is strong and inflation expectations are rising, a gradual scaling-back of monetary accommodation is warranted.

Looking beyond the pandemic, Chapter 3 assesses the extent to which the uneven impact of the crisis will lead to a sizable reallocation of labor in Europe over the medium term. Public policies will have to increasingly support structural transformations. To that effect, temporary investment incentives and hiring subsidies can dovetail structural policies, such as labor market and education policies, to enhance workforce skills and quickly bring people back to jobs. Social safety nets and labor market institutions will need to be adapted to changes in the labor market, including through accelerating automation that could otherwise raise inequality and undermine social cohesion. Other challenges facing policymakers include boosting productivity growth, tackling the problems posed by aging populations, and filling gaps in green and digital infrastructure.

1. Pushing but No Longer Flooring the Policy Pedal

With significant progress in vaccination, Europe's mobility and economy have turned more resilient to new virus waves. Advanced European economies are thus forecast to expand in 2021 by 5.2 percent and emerging European economies by 6 percent, which is 0.3 and 1.1 percentage points higher than in the July 2021 World Economic Outlook Update. The recovery is expected to consolidate in 2022, with growth forecast at 4.4 percent in advanced European economies and 3.6 percent in emerging European economies. The exceptionally strong fiscal support deployed in 2020–21 can, therefore, be reoriented but also scaled back in 2022, with new initiatives focusing on building forward better. Monetary policies in most economies will need to remain supportive as fiscal support is withdrawn, considering that recent increases in inflation are generally not broad based. The gradual withdrawal of monetary accommodation is warranted in some emerging European economies, where activity is strong and inflation expectations are rising. As uncertainty surrounding the virus and recovery remains elevated, the pace of withdrawal of policy support will need to be kept under close review. To reduce this uncertainty, it is imperative to continue to increase vaccination rates, notably in emerging European economies, and continue to strongly support international efforts to distribute vaccines.

Recent Developments

Vaccination is supporting mobility gains despite the Delta variant

Vaccination has progressed since April, and Europe now stands as the region with the highest share of fully vaccinated people in the world (Figure 1.1). However, vaccination rates remain uneven across Europe, with most *emerging European economies* lagging *advanced European economies* by a large margin. Vaccination has proven effective in reducing hospitalizations and mortality rates and brought back mobility, despite the spread of the Delta variant and consequent retightening of some containment measures. Social learning on how to cope with the virus has also supported mobility. Accordingly, European economies are now in a far better state to cope with the pandemic than last year.

Following a synchronized collapse, a multi-speed recovery

Following a pause over the winter, the recovery has resumed since the second quarter of 2021, buoyed by improved mobility. Highly accommodative policies and financial conditions have provided a conducive environment by preserving employment relationships and protecting the balance sheets of households and businesses.[1] An increasingly resilient recovery is gradually taking hold, but at an uneven pace across countries and sectors (Figures 1.1 and 1.2).[2]

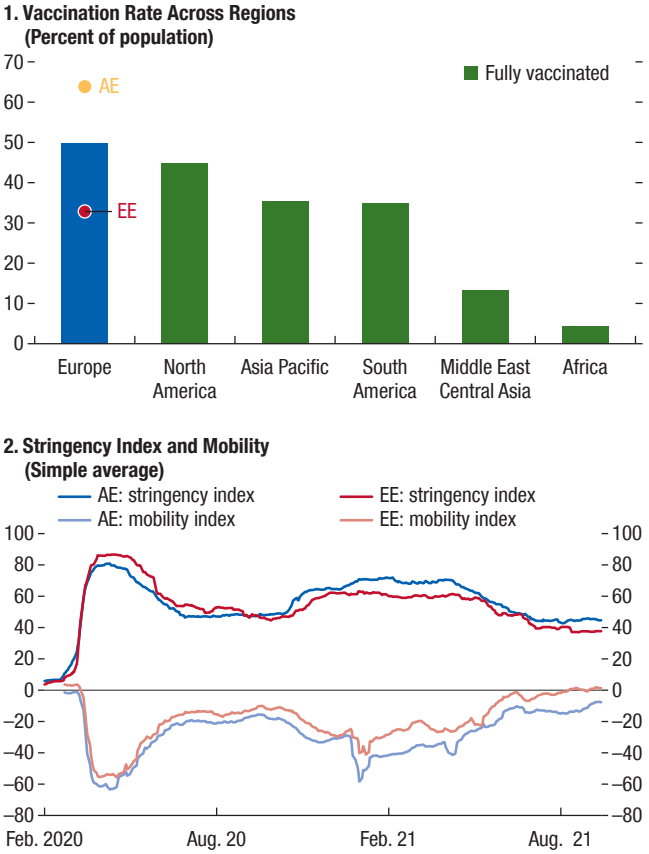
At a sectoral level, the shift from the collapse in 2020 to the multi-speed recovery so far in 2021 has mainly been driven by the better adaptation of some activities to the pandemic (for example, through remote work) and more

This chapter was prepared by Shakill Hassan, Grace Li, Svitlana Maslova, Ezgi Ozturk, and Laura Valderrama with inputs from Chun Jin, Sabiha Mohona, Ben Park, and Agustin Roitman under the supervision of Jörg Decressin, and the guidance of Gabriel Di Bella, Jaewoo Lee, and Petia Topalova. Nomelie Veluz provided administrative support. This report reflects data and developments as of October 6, 2021.

[1]In the aggregate, policies are assessed to have saved 15 percent of employment and almost a quarter of value added in Europe (October 2020 *Regional Economic Outlook: Europe*, Chapter 3). Financial policies supported strengthening bank capital and helped raise common equity tier 1 (CET1) by 60 basis points to 15.6 percent in the first quarter of 2021.

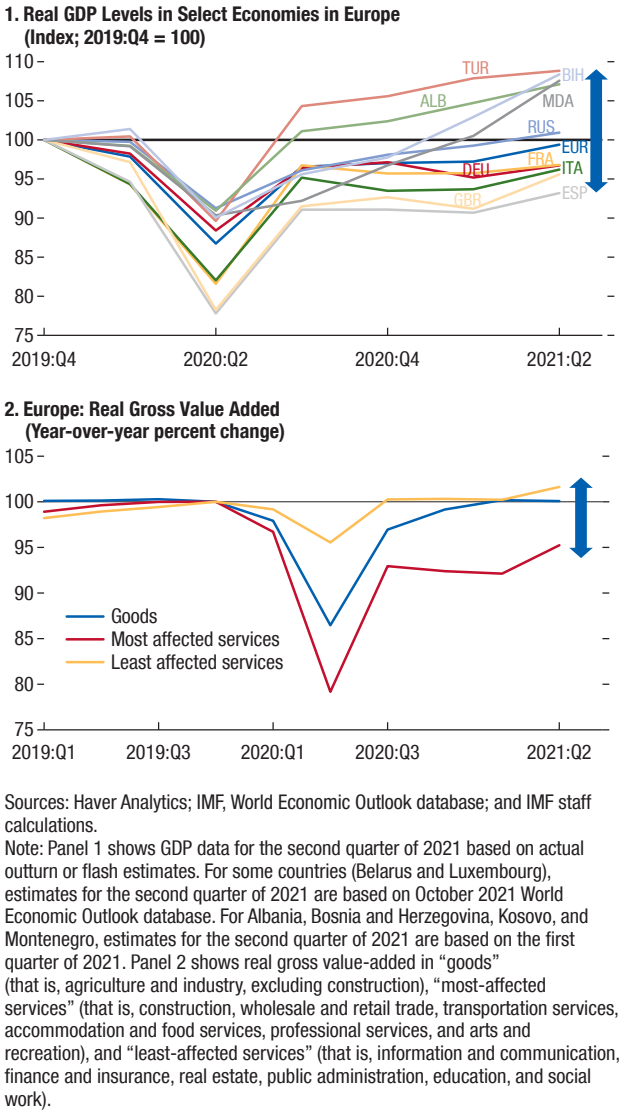
[2]The economic impact of the pandemic was highly uneven in Europe (see Chapter 2). While output losses took place at the same time, the recovery proceeded at different speeds because of differences in the deployment of containment measures, mobility response, and the timing and extent of policy support. See Arena and others (2021b) for the effects on sectoral balance sheets.

Figure 1.1. Vaccination, Stringency, and Mobility



Sources: Bloomberg Finance LPI; Worldmeter, Google Mobility Report, Blavatnik School of Government at the University of Oxford; IMF World Economic Outlook database; and IMF staff calculations.
Note: The University of Oxford's stringency index is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest). AE = advanced European economies; and EE = emerging European economies.

Figure 1.2. Multi-Speed Recovery across Countries and Sectors



Sources: Haver Analytics; IMF, World Economic Outlook database; and IMF staff calculations.
Note: Panel 1 shows GDP data for the second quarter of 2021 based on actual outturn or flash estimates. For some countries (Belarus and Luxembourg), estimates for the second quarter of 2021 are based on October 2021 World Economic Outlook database. For Albania, Bosnia and Herzegovina, Kosovo, and Montenegro, estimates for the second quarter of 2021 are based on the first quarter of 2021. Panel 2 shows real gross value-added in "goods" (that is, agriculture and industry, excluding construction), "most-affected services" (that is, construction, wholesale and retail trade, transportation services, accommodation and food services, professional services, and arts and recreation), and "least-affected services" (that is, information and communication, finance and insurance, real estate, public administration, education, and social work).

targeted containment measures. Manufacturing has continued to expand strongly, though input shortages have started to hold back production in durable goods, notably car production.

The more adaptable service-sector activities have also begun recovering, though hard-hit activities (for example, arts and recreation, wholesale and retail trade, and tourism) are still lagging.

Household consumption recovered on the back of better employment prospects

The recovery has led to an increase in hours worked, which are inching toward pre-pandemic levels in both *emerging and advanced economies* (Figure 1.3). Increased labor force participation and job vacancy rates bode well for continued employment gains.

The household saving rate, which jumped in 2020, is receding and consumption is growing in tandem with better income prospects. The latest European Commission consumer survey suggests that households expect to spend more on major purchases in the next 12 months than at the beginning of 2020.

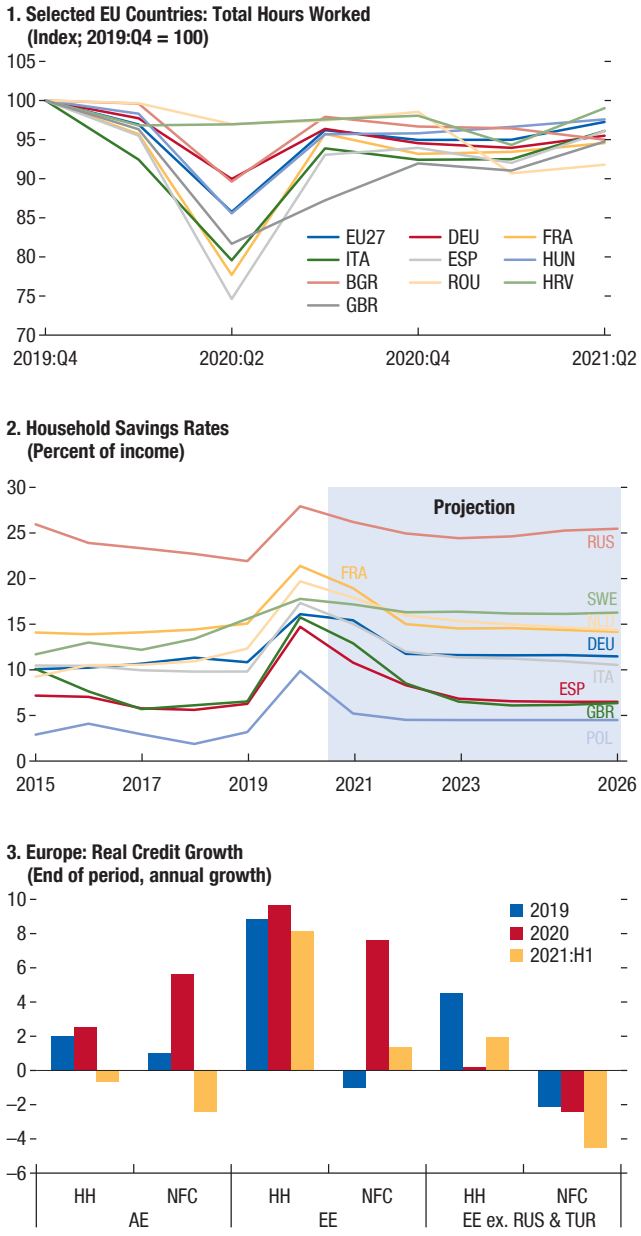
Financial conditions have eased slightly since the spring, supported by accommodative monetary policy and a sustained risk appetite. Bond yields remained compressed across risk categories, as expectations of early tightening waned. Residential house prices grew strongly on high demand, fueled by low interest rates and supply constraints in the construction sector.

In contrast, real bank credit contracted in the first half of 2021 (with some exceptions, including *Russia*), driven by a decline in corporate credit. While base effects contributed to this contraction, there is also evidence that banks' underwriting standards remain tight, reflecting a cautious perception of risk regarding the economic recovery and the restoration of insolvency filing duties, following their temporary suspension. Credit growth to households, however, remained positive.

Inflation surged on the back of energy prices

Headline inflation in Europe picked up to 5 percent (year over year) by the end of August 2021, reflecting strong base effects, supply bottlenecks, higher commodity prices, and the release of pent-up demand. Idiosyncratic one-off factors, such as the expiration of a temporary value-added tax (VAT) cut in *Germany* and re-weighting of the consumer price index (CPI) basket, also contributed to its rise. Pandemic-induced supply-demand mismatches have led to shortages in select sectors, long delivery times, and disruptions in shipping, thereby also contributing to rising inflation, as has the pass-through of exchange rate depreciation in some *emerging European economies* (for example, *Turkey*). In the aggregate, however, energy prices have been the primary driver of the recent inflation pick-up (Figure 1.4), with oil and gas prices hitting multi-year highs. This reflects the strong recovery of global demand as well as supply shortages, notably in natural gas markets, which

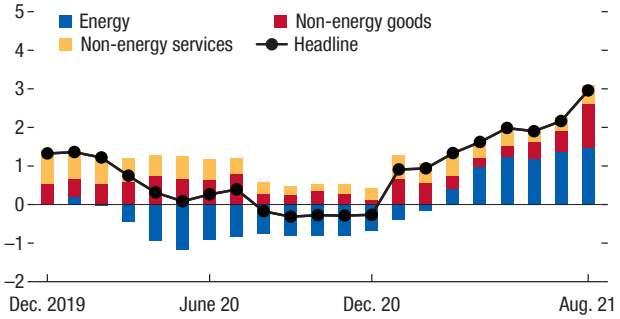
Figure 1.3. Hours Worked, Household Savings, and Real Credit Growth



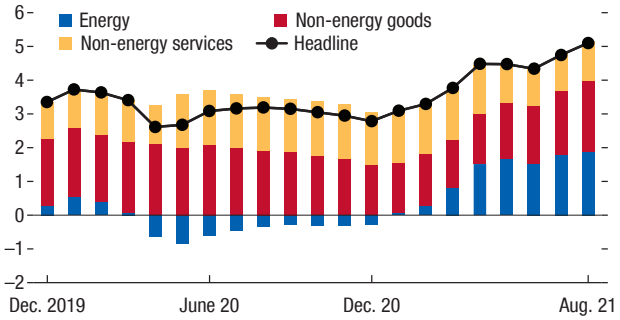
Sources: Haver Analytics; European Commission; IMF, World Economic Outlook database; and IMF staff calculations.
Note: Panel 2 shows household saving rates for major countries in Europe, except for Russia, where the chart depicts gross private national savings. AE = advanced European economies; EE = emerging European economies; HH = household; NFC = nonfinancial corporation.

Figure 1.4. Inflation and Inflation Expectations

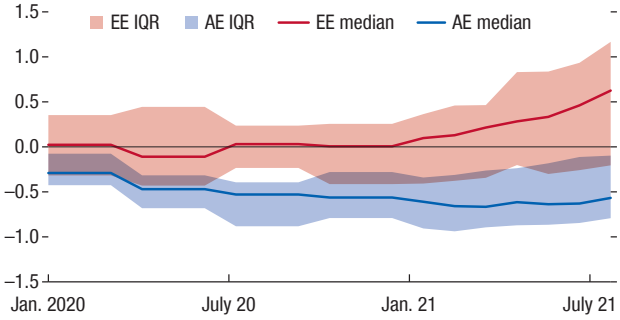
1. Euro Area: Inflation Decomposition
(Year-over-year percent change)



2. EE ex. Russia & Turkey: Inflation Decomposition
(Year-over-year percent change)



3. Europe: 2022 Inflation Expectations
(Distance to target; year-over-year percent change; monthly)



Sources: Haver Analytics; national statistical offices and central banks; Consensus Forecasts; and IMF staff calculations.
Note: Emerging market European economies (EE) in panel 2 include Belarus, Bulgaria, Croatia, Hungary, Moldova, Montenegro, North Macedonia, Poland, Romania, and Serbia. Data for housing and utilities is used for Belarus. Headline corresponds to year-over-year headline inflation in percent. The panel 3 presents distances between annual inflation expectations and central banks' inflation targets. AE = advanced European economies; EE = emerging European economies; IQR = inter-quartile range.

appear unlikely to abate soon. Importantly, there is no significant, broad-based increase in the price of services—which are normally associated with wage pressures—in most countries yet.

A Consolidating Recovery in 2022, but Virus-Driven Uncertainty to Continue

Advanced and *emerging European economies* are forecast to expand by 5.2 and 6 percent, respectively, in 2021, which is 0.3 and 1.1 percentage points higher than in the July *World Economic Outlook Update*. As a result, most countries are projected to regain their 2019 output levels by the end of 2021. The recovery is expected to consolidate in 2022, with growth forecast at 4.4 percent in *advanced European economies* and 3.6 percent in *emerging European economies* (Table 1.1). The lower projected growth rates in 2022 mainly reflect less policy support and the gradual maturing of the recovery (Figure 1.5). Estimated medium-term output losses relative to precrisis trends, the so-called scarring effects, have been revised down, consistent with the stronger recovery.[3]

Inflationary pressures are expected to ease in 2022, as supply-side constraints abate and energy prices stabilize. After peaking at 2.1 percent in 2021, annual inflation in *advanced European economies* is projected to moderate to 1.8 percent in 2022 (Table 1.2).

Inflation in *emerging European economies* is also expected to decrease to 7.2 percent next year, compared to 8.5 percent in 2021. Inflation rates are projected to be higher in countries where local currencies depreciated more (for example, *Belarus* and *Turkey*).

The risk of further virus waves and mutations means that uncertainty is still high, even if conditions are now far better than in 2020. Near-term risks are strongly dominated by virus developments and tilted to the downside, especially for *emerging European economies* because of their lower vaccination rates. In this context, a larger-than-warranted reduction of demand support across Europe presents a further downside risk. Weaker balance sheets or potential real estate

[3]The precrisis trends are defined as the projections included in the January 2020 *World Economic Outlook Update*.

market corrections as well as abrupt changes in sentiment about sovereign risks could lead to a significant deterioration in financial market conditions for several economies. Prolonged supply disruptions and high energy prices could limit production in key sectors and lead to more sustained price pressures, rising inflation expectations, and faster-than-anticipated monetary tightening, which, in turn, may temper the recovery. However, a faster-than-expected decline in savings rates, notably in *advanced European economies*, could accelerate the near-term recovery. Over the medium term, political stress, triggered by the legacies of the pandemic, could place economies and societies under pressure.

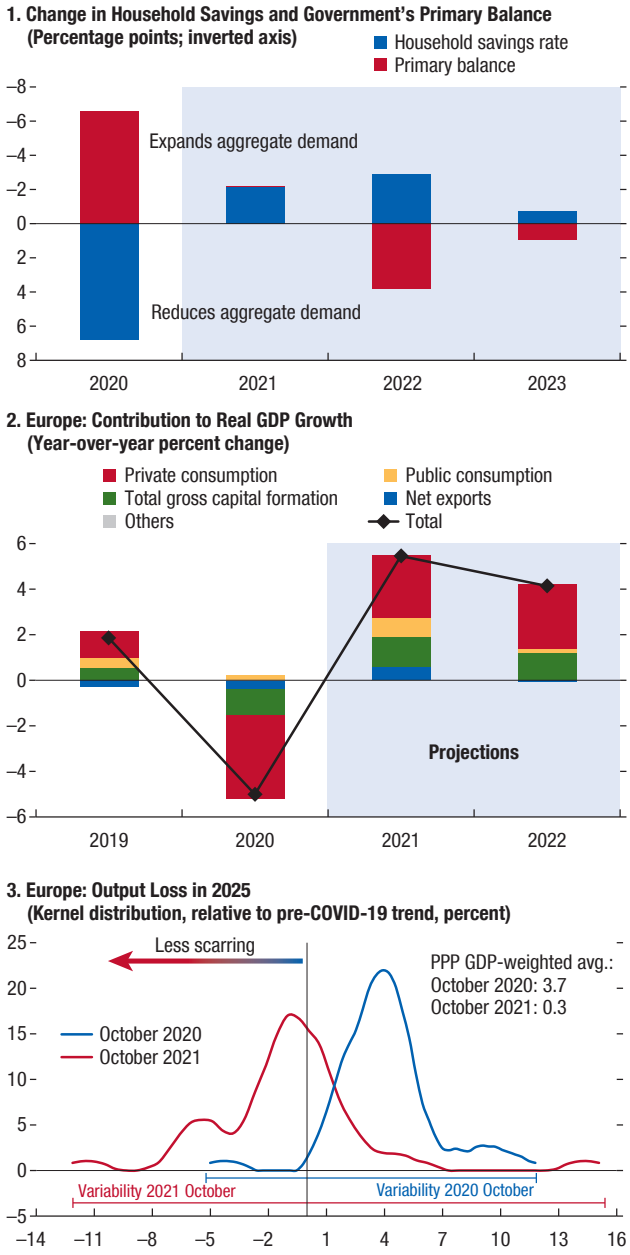
Policy Adjustment: Essential in the Recovery

As the recovery proceeds, policymakers will need to be increasingly concerned with establishing the right timing and pace of withdrawing support to the economy. While this task is challenging in "normal" cycles, it is even more complex in the current pandemic.

Extraordinary policy support in 2020–21 was critical but so is rebuilding policy buffers once the recovery is entrenched. If there had not been new virus mutations and infection waves or if vaccination rates had reached high levels everywhere, then 2022 would clearly be the year to engineer a major fiscal policy shift. As it stands, the picture is much better than six months ago but remains blurred. There is a risk that fiscal support could be cut too quickly. In this regard, the observed decline in corporate credit growth illustrates an outcome of rolling back policy support. At the same time, monetary policy is challenged by price increases related mainly to temporary pressures and will need to bear in mind the shift in fiscal policy and its effect on demand.

All in all, a policy shift appears desirable, but it will need to proceed carefully and be well communicated, so as not to compromise the recovery and undermine policy credibility.

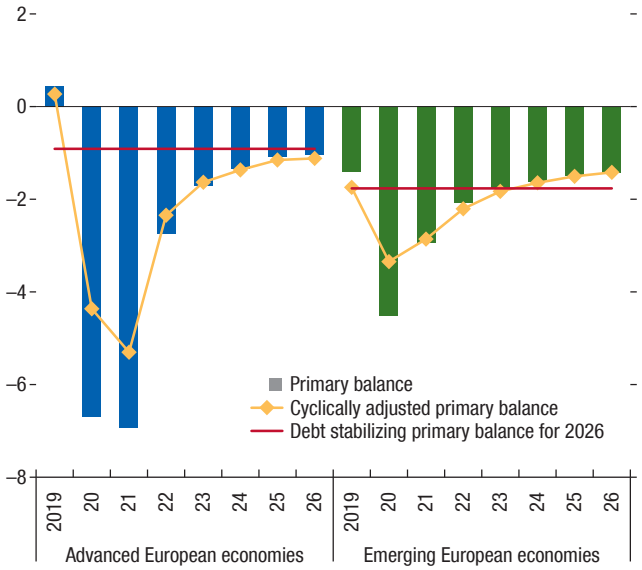
Figure 1.5. GDP Growth Contributions and Output Loss



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: Household savings rates are in percent of household income. Primary balance is in percent of nominal GDP. Data are aggregated using PPPGDP weighted average. In panel 1, selected countries are France, Germany, Italy, The Netherlands, Poland, Russia, Spain, Sweden, and the United Kingdom. These countries represented about 68 percent of Europe's nominal GDP in PPP dollars. PPP= purchasing power parity.

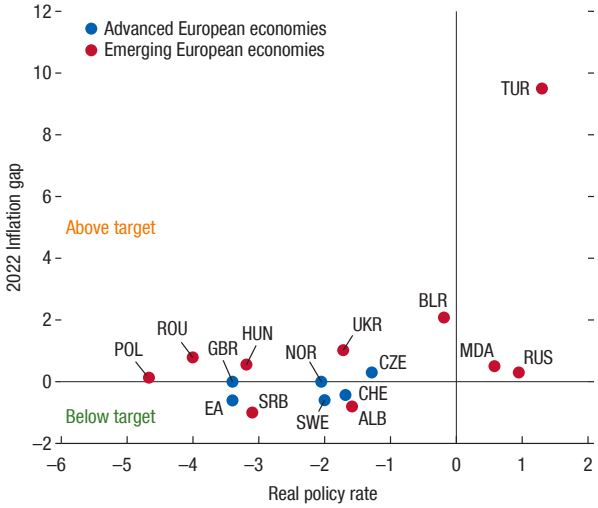
Figure 1.6. Fiscal Policy

(Percent of GDP; PPPGDP weighted average)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: In the chart, debt stabilizing primary balance is calculated using 2026 projections. Andorra and Russia are excluded. PPP = purchasing power parity.

Figure 1.7. Inflation Gap and Real Interest Rates



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: The inflation gap subtracts the inflation target (or midpoint) from the end of 2022 inflation forecast (WEO). Country abbreviations are International Organization for Standardization country codes.

Fiscal policy: Tuned to the strength of the recovery

Fiscal policy should increasingly emphasize facilitating labor and capital reallocation and structural transformation as well as rebuilding policy space. The slight expansion in the 2021 fiscal deficit since the spring and the shift, in some countries, from lifelines to measures that facilitate resource reallocation (including investment incentives, hiring subsidies, and other active labor market policies) has been appropriate and broadly in line with recommendations in last April's *Regional Economic Outlook Update: Europe* and Chapter 3 of this *Regional Economic Outlook*.

On present policies, a major reduction in fiscal deficits is expected for 2022 but this needs to be kept under review (Figure 1.6). Where the pandemic situation continues to fundamentally improve, notwithstanding periodic infection waves, pandemic support programs should be narrowed to viable firms in affected sectors and the most vulnerable households. The resources freed up in the process should partly serve to build forward better and partly serve to rebuild fiscal space. The balance between the two will need to ensure that strong growth—the best antidote to scarring—continues. Fiscal space and external funding conditions are additional considerations, although mainly for *emerging European economies*. In this regard, the recent special drawing rights allocation has created more room for several *emerging European economies* to support lives and livelihoods. Furthermore, less fiscal withdrawal may be desirable in economies with sufficient policy space that have been struggling to move up inflation durably to target.

The expected acceleration of Next Generation EU Recovery and Resilience Facility transfers in the next few years will add to resources available for investing in digitalization and greener and more equitable growth. Their deployment should be supported with measures to improve public investment management practices, particularly in *emerging European economies* (see Ari and others [2020] on infrastructure in Central, Eastern, and Southeastern Europe).

Importantly, the formulation of credible medium-term fiscal consolidation plans is

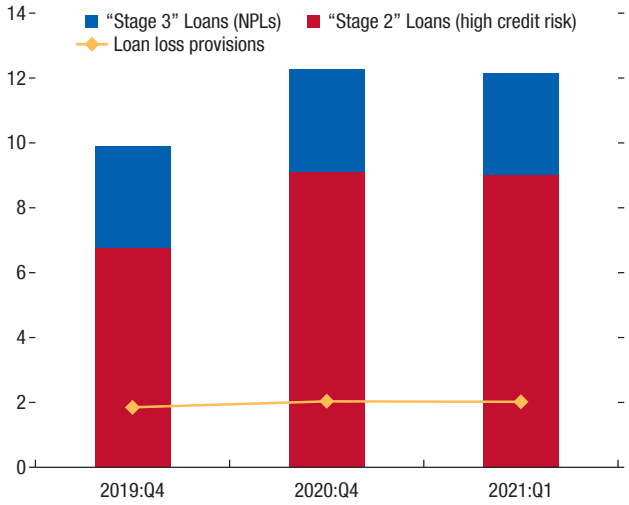
necessary to anchor market expectations around realistic public debt paths. At the same time, unrealistically strong, uncoordinated, or poorly communicated plans could depress sentiment and slow down or even set back the recovery.

Monetary policy: Mostly staying highly accomodative

Despite increases in headline inflation, inflation expectations in most European countries have remained at or below target (Figure 1.7). In the *euro area*, medium-term inflation expectations remain below the symmetric inflation target of 2 percent, reflecting persistently low inflation over the past decade, subdued wage growth, and still-significant economic slack. With the Pandemic Emergency Purchase Program envelope set to be exhausted in early 2022, the European Central Bank will likely need to augment other asset purchase programs (APPs) to help achieve its inflation objective over the medium term. Some *emerging European economies* are in a broadly similar situation with little underlying inflation pressure and below-target inflation expectations. A few other economies are at the opposite end of the spectrum, exhibiting stronger inflationary pressures, and in these cases, monetary policy should become less accommodative (for example, *Ukraine* and *Turkey*). Yet other countries fall in between (for example, *Hungary, Poland,* and *Romania,* among *emerging European economies,* and *the Czech Republic, Norway,* and *the United Kingdom* among *advanced European economies)*, with signs of price pressures and some increases in inflation expectations. Among these, action appears most necessary in those where monetary conditions are loosening. This should involve signaling, if not initiating, a gradual normalization of policy rates and winding down asset purchase programs where these are still running.[4] In *Russia*, the policy rate has already been increased several times in response to rising inflation.

[4]See Arena and others (2021a) on APPs in emerging European economies.

Figure 1.8. EU: Banks' Asset Quality and Provisions
(Percent)



Sources: European Banking Authority; and IMF staff calculations.
Note: The chart shows the share of loans according to the forward-looking accounting standards IFRS9. "Stage 2" loans are financial instruments for which the credit risk has increased significantly since initial recognition even if they are performing."Stage 3" is similar to the definition of impaired exposures or nonperforming loans. Loan loss provisions are defined as the ratio between loan loss provisions and total loan exposures. IFRS = International Financial Reporting Standards.

Financial and corporate sector policies: Safeguarding financial stability and ensuring the viability of solvent firms

The pandemic has increased the share of risky loans, which could result in a deterioration of banking sector asset quality (Figure 1.8). Although the 2021 EU-wide stress test confirms the resilience of the EU banking system, supervisors should strengthen credit risk monitoring to ensure that provisioning reflects the underlying increase in latent solvency risk, and that banks are sufficiently capitalized to support the economic recovery[5] (Aiyar and others [2021] analyzes Europe's bank capital). Resilience against future potential asset price corrections could be enhanced by selectively tightening macroprudential policy, mindful of unintended consequences for segments of the credit market that are still weak. Corporate

[5]While, on average, the EU banking system is resilient to stress, results show large dispersion across banks. Also, the 485 basis-point reduction in CET1 in a stress scenario could reduce banks' capacity to lend to the real economy.

sector policies should support the solvency of viable firms under financial strain and aim to strengthen their capital structure, which will promote investment and strengthen the recovery.

Governments can step in to strengthen the capital base of viable firms with direct recapitalizations, where warranted; guarantee schemes; or tax programs to incentivize equity mobilization (Ebeke and others 2021). The instruments chosen should strike the right balance between administrative transparency and complexity, monitoring requirements, and burden sharing between the government and the private sector.

Structural policies: Facilitating economic transformation and higher and more equitable growth

As the recovery takes hold, policies should aim to minimize potential scarring from the pandemic. One important challenge will be to address the sizable reallocation of labor that the pandemic may bring about, among the low-skilled and young workers, in particular, who are disproportionately employed in the hardest-hit sectors (Chapter 3 of this *Regional Economic Outlook*). Actions should aim to efficiently reallocate resources and enhance new growth engines, such as the digital and green economy, while addressing pre-pandemic structural challenges:

- Sustainably recovering from the pandemic requires that vaccination rates increase to cover as high a share of the global population as possible. Many European economies will need to re-invigorate vaccination campaigns and overcome vaccine hesitancy. *Advanced European economies*, together with other advanced economies, should redouble efforts to ensure that vaccines flow to under-served populations domestically and internationally.
- Active and passive labor market and education policies could improve general labor conditions, lower transition costs, help labor reallocation, enhance workforce skills, and alleviate the pandemic's impact on inequality. In addition, improved bankruptcy and insolvency frameworks could strengthen business confidence and investment, and lower operation costs.
- In light of the dislocation of labor due to the pandemic and the acceleration of automation—a precrisis trend—improving social safety nets and labor market institutions will be key to maintaining social cohesion and addressing inequality. One such area is to address housing affordability pressures (Elfayoumi and others 2021), a problem that preceded the crisis.
- Boosting potential growth and economic resilience requires addressing long-standing challenges, such as relatively low productivity growth, an aging population, and gaps in green and digital infrastructure, among others. To this end, public investment in human capital, digital connectivity, and green infrastructure should be scaled up (see Arregui and others [2020] and Chen and others [2020] on policies for climate change mitigation in the EU). In addition, many *emerging European economies* would benefit from stronger institutional frameworks—for example, in fiscal and public investment management—and better economic governance to accelerate convergence and achieve higher, more inclusive, and resilient growth.

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Table 1.1. Real GDP Growth

(Year-over-year percent change; aggregation based on GDP in purchasing power parity terms)

		Current WEO			April 2021 WEO			Difference		
	2020	2021	2022	2023	2021	2022	2023	2021	2022	2023
Europe	−5.0	5.5	4.1	2.3	4.5	3.9	2.4	1.0	0.2	−0.1
Advanced European Economies	−6.4	5.2	4.4	2.1	4.5	4.0	2.1	0.7	0.4	0.0
Euro Area	−6.3	5.0	4.3	2.0	4.4	3.8	1.9	0.6	0.5	0.1
Austria	−6.2	3.9	4.5	2.1	3.5	4.0	2.3	0.4	0.5	−0.2
Belgium	−6.3	5.6	3.1	1.8	4.0	3.1	2.1	1.6	0.0	−0.3
Cyprus	−5.1	4.8	3.6	3.2	3.0	3.9	3.1	1.8	−0.3	0.1
Estonia	−3.0	8.5	4.2	3.7	3.4	4.2	3.5	5.1	0.0	0.2
Finland	−2.9	3.0	3.0	1.5	2.3	2.5	1.5	0.7	0.5	0.0
France	−8.0	6.3	3.9	1.8	5.8	4.2	1.7	0.5	−0.3	0.1
Germany	−4.6	3.1	4.6	1.6	3.6	3.4	1.6	−0.5	1.2	0.0
Greece	−8.2	6.5	4.6	2.6	3.8	5.0	2.4	2.7	−0.4	0.2
Ireland	5.9	13.0	3.5	3.9	4.2	4.8	3.7	8.8	−1.3	0.2
Italy	−8.9	5.8	4.2	1.6	4.2	3.6	1.6	1.6	0.6	0.0
Latvia	−3.6	4.5	5.2	4.0	3.9	5.2	3.9	0.6	0.0	0.1
Lithuania	−0.9	4.7	4.1	3.1	3.2	3.2	3.1	1.5	0.9	0.0
Luxembourg	−1.3	5.5	3.8	3.0	4.1	3.6	3.0	1.4	0.2	0.0
Malta	−8.3	5.7	6.0	4.9	4.7	5.6	4.6	1.0	0.4	0.3
Netherlands	−3.8	3.8	3.2	2.1	3.5	3.0	1.8	0.3	0.2	0.3
Portugal	−8.4	4.4	5.1	2.5	3.9	4.8	2.5	0.5	0.3	0.0
Slovak Republic	−4.8	4.4	5.2	4.3	4.7	4.4	3.8	−0.3	0.8	0.5
Slovenia	−4.2	6.3	4.6	3.7	3.7	4.5	3.6	2.6	0.1	0.1
Spain	−10.8	5.7	6.4	2.6	6.4	4.7	2.8	−0.7	1.7	−0.2
Nordic Economies	−2.1	3.7	3.5	2.6	3.2	3.2	2.4	0.5	0.3	0.2
Denmark	−2.1	3.8	3.0	1.9	2.8	2.9	1.8	1.0	0.1	0.1
Iceland	−6.5	3.7	4.1	3.7	3.7	3.6	2.4	0.0	0.5	1.3
Norway	−0.8	3.0	4.1	2.9	3.9	4.0	2.8	−0.9	0.1	0.1
Sweden	−2.8	4.0	3.4	2.8	3.1	3.0	2.3	0.9	0.4	0.5
Other European Advanced Economies	−7.7	6.1	4.6	2.2	4.9	4.6	2.2	1.2	0.0	0.0
Andorra	−12.0	5.5	4.8	2.7	.	.	.	.	.	.
Czech Republic	−5.8	3.8	4.5	4.1	4.2	4.3	3.7	−0.4	0.2	0.4
Israel	−2.2	7.1	4.1	3.6	5.0	4.3	3.8	2.1	−0.2	−0.2
San Marino	−6.5	5.5	3.7	1.5	4.5	3.4	1.5	1.0	0.3	0.0
Switzerland	−2.5	3.7	3.0	1.4	3.5	2.8	1.4	0.2	0.2	0.0
United Kingdom	−9.8	6.8	5.0	1.9	5.3	5.1	2.0	1.5	−0.1	−0.1
Emerging European Economies	−2.0	6.0	3.6	2.9	4.4	3.9	3.0	1.6	−0.3	−0.1
Central Europe	−3.2	5.6	5.1	3.5	3.6	4.8	3.9	2.0	0.3	−0.4
Hungary	−5.0	7.6	5.1	3.8	4.3	5.9	3.8	3.3	−0.8	0.0
Poland	−2.7	5.1	5.1	3.5	3.5	4.5	4.0	1.6	0.6	−0.5
Eastern Europe	−3.0	4.5	2.9	2.1	3.6	3.6	2.2	0.9	−0.7	−0.1
Belarus	−0.9	2.1	0.5	1.0	−0.4	0.8	1.2	2.5	−0.3	−0.2
Moldova	−7.0	4.5	5.2	5.5	4.5	4.0	4.2	0.0	1.2	1.3
Russia	−3.0	4.7	2.9	2.0	3.8	3.8	2.1	0.9	−0.9	−0.1
Ukraine	−4.0	3.5	3.6	3.4	4.0	3.4	3.4	−0.5	0.2	0.0
Southeastern European EU Member States	−4.5	6.5	4.9	3.9	5.5	4.8	3.9	1.0	0.1	0.0
Bulgaria	−4.2	4.5	4.4	4.0	4.4	4.4	3.9	0.1	0.0	0.1
Croatia	−8.0	6.3	5.8	4.0	4.7	5.0	4.2	1.6	0.8	−0.2
Romania	−3.9	7.0	4.8	3.8	6.0	4.8	3.8	1.0	0.0	0.0
Southeastern European Non-EU Member States	−3.2	5.4	4.3	4.1	4.7	4.3	3.8	0.7	0.0	0.3
Albania	−3.3	5.3	4.5	4.1	5.0	4.0	4.0	0.3	0.5	0.1
Bosnia and Herzegovina	−4.3	2.8	3.2	3.0	3.5	3.2	3.0	−0.7	0.0	0.0
Kosovo	−5.3	6.0	4.5	4.2	4.5	5.5	4.0	1.5	−1.0	0.2
Montenegro	−15.2	7.0	5.6	3.6	9.0	5.5	4.1	−2.0	0.1	−0.5
North Macedonia	−4.5	4.0	4.2	3.8	3.8	4.0	3.7	0.2	0.2	0.1
Serbia	−1.0	6.5	4.5	4.5	5.0	4.5	4.0	1.5	0.0	0.5
Turkey	1.8	9.0	3.3	3.3	6.0	3.5	3.5	3.0	−0.2	−0.2
Memorandum										
World	−3.1	5.9	4.9	3.6	6.0	4.4	3.5	−0.1	0.5	0.1
Advanced economies	−4.5	5.2	4.5	2.2	5.1	3.6	1.8	0.1	0.9	0.4
Emerging market and developing economies	−2.1	6.4	5.1	4.6	6.7	5.0	4.7	−0.3	0.1	0.0
Emerging Europe excl. Russia and Turkey	−3.5	5.3	4.5	3.5	4.1	4.3	3.7	1.2	0.2	−0.1
European Union	−5.9	5.1	4.4	2.3	4.4	3.9	2.3	0.7	0.5	−0.2
United States	−3.4	6.0	5.2	2.2	6.4	3.5	1.4	−0.4	1.7	0.8
China	2.3	8.0	5.6	5.3	8.4	5.6	5.4	−0.4	0.0	−0.1
Japan	−4.6	2.4	3.2	1.4	3.3	2.5	1.1	−0.9	0.7	0.3

Sources: IMF, World Economic Outlook database; and IMF staff calculations.

Note: In Tables 1.1 and 1.2, country group composites for Europe are calculated as the arithmetic average of data for individual countries, weighted by GDP valued at purchasing power parity as a share of total group GDP. The source of purchasing power parity weights is the World Economic Outlook (WEO) database.

Table 1.2. Headline Inflation

(Year-over-year percent change; aggregation based on GDP in purchasing power parity terms)

		Current WEO			April 2021 WEO			Difference		
	2020	2021	2022	2023	2021	2022	2023	2021	2022	2023
Europe	2.0	4.2	3.5	3.0	3.1	2.6	2.8	1.1	0.9	0.2
Advanced European Economies	0.4	2.1	1.8	1.5	1.4	1.3	1.5	0.7	0.5	0.0
Euro Area	0.3	2.1	1.7	1.4	1.4	1.2	1.4	0.8	0.5	0.0
Austria	1.4	2.5	2.4	2.0	1.6	1.8	2.0	0.9	0.6	0.0
Belgium	0.4	2.4	2.2	1.9	1.7	1.9	1.8	0.7	0.3	0.1
Cyprus	−1.1	1.7	1.0	1.2	0.5	0.8	1.2	1.2	0.2	0.0
Estonia	−0.6	3.8	4.9	2.2	1.8	2.5	2.1	2.0	2.4	0.1
Finland	0.4	1.9	1.6	1.6	1.4	1.5	1.6	0.5	0.1	0.0
France	0.5	2.0	1.6	1.2	1.1	1.2	1.3	0.9	0.4	−0.1
Germany	0.4	2.9	1.5	1.3	2.2	1.1	1.5	0.7	0.4	−0.2
Greece	−1.3	−0.1	0.4	1.1	0.2	0.8	1.0	−0.3	−0.4	0.1
Ireland	−0.5	1.9	1.9	2.0	1.6	1.9	2.0	0.3	0.0	0.0
Italy	−0.1	1.7	1.8	1.2	0.8	0.9	1.0	0.9	0.9	0.2
Latvia	0.1	2.6	3.0	2.2	2.1	2.2	1.9	0.5	0.8	0.3
Lithuania	1.1	3.0	2.8	2.7	1.5	1.9	2.0	1.5	0.9	0.7
Luxembourg	0.0	2.7	1.4	1.9	0.9	1.8	1.9	1.8	−0.4	0.0
Malta	0.8	0.7	1.8	2.0	1.1	1.4	1.5	−0.4	0.4	0.5
Netherlands	1.1	1.9	1.7	1.8	1.4	1.5	1.6	0.5	0.2	0.2
Portugal	−0.1	1.2	1.3	1.4	0.9	1.2	1.3	0.3	0.1	0.1
Slovak Republic	2.0	2.4	3.0	2.1	1.2	1.9	2.0	1.2	1.1	0.1
Slovenia	−0.1	1.4	1.8	1.8	0.8	1.5	1.6	0.6	0.3	0.2
Spain	−0.3	2.2	1.6	1.4	1.0	1.3	1.5	1.2	0.3	−0.1
Nordic Economies	0.8	2.1	1.7	1.8	1.6	1.5	1.7	0.5	0.2	0.1
Denmark	0.3	1.4	1.6	1.8	1.1	1.4	1.5	0.3	0.2	0.3
Iceland	2.9	4.3	3.1	2.5	3.2	2.5	2.5	1.1	0.6	0.0
Norway	1.3	2.6	2.0	2.0	2.2	2.0	2.0	0.4	0.0	0.0
Sweden	0.7	2.0	1.6	1.7	1.5	1.2	1.6	0.5	0.4	0.1
Other European Advanced Economies	0.7	1.9	2.2	1.8	1.3	1.5	1.7	0.6	0.7	0.1
Andorra	0.3	1.7	1.5	1.3	.	.	.	.	.	.
Czech Republic	3.2	2.7	2.3	2.0	2.3	2.0	2.0	0.4	0.3	0.0
Israel	−0.6	1.4	1.8	1.6	0.3	0.6	0.7	1.1	1.2	0.9
San Marino	0.2	0.8	0.9	1.0	0.8	0.9	1.0	0.0	0.0	0.0
Switzerland	−0.7	0.4	0.6	0.8	0.1	0.3	0.8	0.3	0.3	0.0
United Kingdom	0.9	2.2	2.6	2.0	1.5	1.9	2.0	0.7	0.7	0.0
Emerging European Economies	5.4	8.5	7.2	6.2	6.6	5.5	5.4	1.9	1.7	0.8
Central Europe	3.4	4.4	3.3	2.9	3.3	2.7	2.7	1.1	0.6	0.2
Hungary	3.3	4.5	3.6	3.3	3.6	3.5	3.3	0.9	0.1	0.0
Poland	3.4	4.4	3.3	2.8	3.2	2.5	2.5	1.2	0.8	0.3
Eastern Europe	3.4	6.4	5.2	4.7	5.0	3.9	4.0	1.4	1.3	0.7
Belarus	5.5	9.2	8.3	6.1	6.9	5.5	5.1	2.3	2.8	1.0
Moldova	4.4	3.0	5.8	5.0	3.0	5.0	5.0	0.0	0.8	0.0
Russia	3.4	5.9	4.8	4.5	4.5	3.4	3.8	1.4	1.4	0.7
Ukraine	2.7	9.5	7.1	5.8	7.9	6.8	5.1	1.6	0.3	0.7
Southeastern European EU Member States	2.0	3.6	2.9	2.7	2.2	2.0	2.4	1.4	0.9	0.3
Bulgaria	1.2	2.1	1.9	1.9	1.0	2.0	2.0	1.1	−0.1	−0.1
Croatia	0.1	2.0	2.0	2.1	0.7	1.2	1.9	1.3	0.8	0.2
Romania	2.6	4.3	3.4	3.0	2.8	2.1	2.6	1.5	1.3	0.4
Southeastern European Non-EU Member States	0.9	2.6	2.4	2.2	1.8	1.9	2.1	0.8	0.6	0.1
Albania	1.6	1.9	2.3	2.5	2.0	2.3	2.5	−0.1	0.0	0.0
Bosnia and Herzegovina	−1.1	1.8	1.8	1.7	1.2	1.0	1.3	0.6	0.8	0.4
Kosovo	0.2	3.1	3.6	2.4	0.3	1.5	1.7	2.8	2.1	0.7
Montenegro	−0.2	2.0	1.5	1.4	0.4	1.0	1.3	1.6	0.5	0.1
North Macedonia	1.2	3.1	2.2	1.5	2.0	1.5	1.6	1.1	0.7	−0.1
Serbia	1.6	3.0	2.7	2.5	2.2	2.4	2.6	0.8	0.3	−0.1
Turkey	12.3	17.0	15.4	12.8	13.6	11.8	11.0	3.4	3.6	1.8
Memorandum										
World	3.2	4.3	3.8	3.3	3.5	3.2	3.1	0.8	0.6	0.2
Advanced economies	0.7	2.8	2.3	1.9	1.6	1.7	1.8	1.2	0.6	0.1
Emerging market and developing economies	5.1	5.5	4.9	4.3	4.9	4.4	4.0	0.6	0.5	0.3
Emerging Europe excl. Russia and Turkey	2.9	5.1	4.0	3.4	3.8	3.2	3.1	1.3	0.8	0.3
European Union	0.7	2.4	1.9	1.6	1.6	1.4	1.6	0.8	0.5	0.0
United States	1.2	4.3	3.5	2.7	2.3	2.4	2.5	2.0	1.1	0.2
China	2.4	1.1	1.8	1.9	1.2	1.9	1.9	−0.1	−0.1	0.0
Japan	0.0	−0.2	0.5	0.7	0.1	0.7	0.7	−0.3	−0.2	0.0

Sources: IMF, World Economic Outlook database; and IMF staff calculations.

2. Growth during the Pandemic

The COVID-19 pandemic spared no country but the associated economic losses in 2020 varied substantially across Europe. Emerging market economies in Europe experienced, on average, significantly shallower recessions than advanced economies in Europe. This chapter shows that differences in 2020 growth outcomes can be largely explained by differences in underlying growth trends, mobility, pre-pandemic fundamentals, and macroeconomic policies. Notably, the smaller output losses in emerging market economies in Europe can be attributed to higher underlying growth and younger populations.

The economic impact of the COVID-19 pandemic has been highly uneven across Europe. While real activity contracted by more than 10 percent in the worst-hit countries, a few managed to avoid a recession in 2020 (Figure 2.1). On average, emerging market economies in Europe experienced significantly shallower recessions, with real GDP contracting by 2 percent, on average, compared to the 6.4 percent average decline in advanced European economies.

As the economic recovery gathers steam while highly infectious COVID-19 variants threaten a resurgence of the pandemic, a better understanding of the divergent growth paths in 2020 will be instructive to forecast activity and design effective policies. To this end, this chapter seeks to answer the following questions:

- What explains the vast heterogeneity in growth outcomes across Europe?
- To what extent can differentials in growth outcomes be attributed to differences in countries' sectoral composition?
- Were country fundamentals at the onset of the pandemic, including macroeconomic and health conditions, a quantitatively important factor for the observed outcomes?
- What was the role of economic policies?

To address these questions, the chapter first documents key stylized facts on growth outcomes and policy support during the pandemic, before presenting a formal empirical decomposition of 2020 GDP growth rates of European countries into contributing factors. Although causal interpretation is challenging, the chapter seeks to quantify (albeit imperfectly) the relative importance of these factors.[1]

Stylized Facts

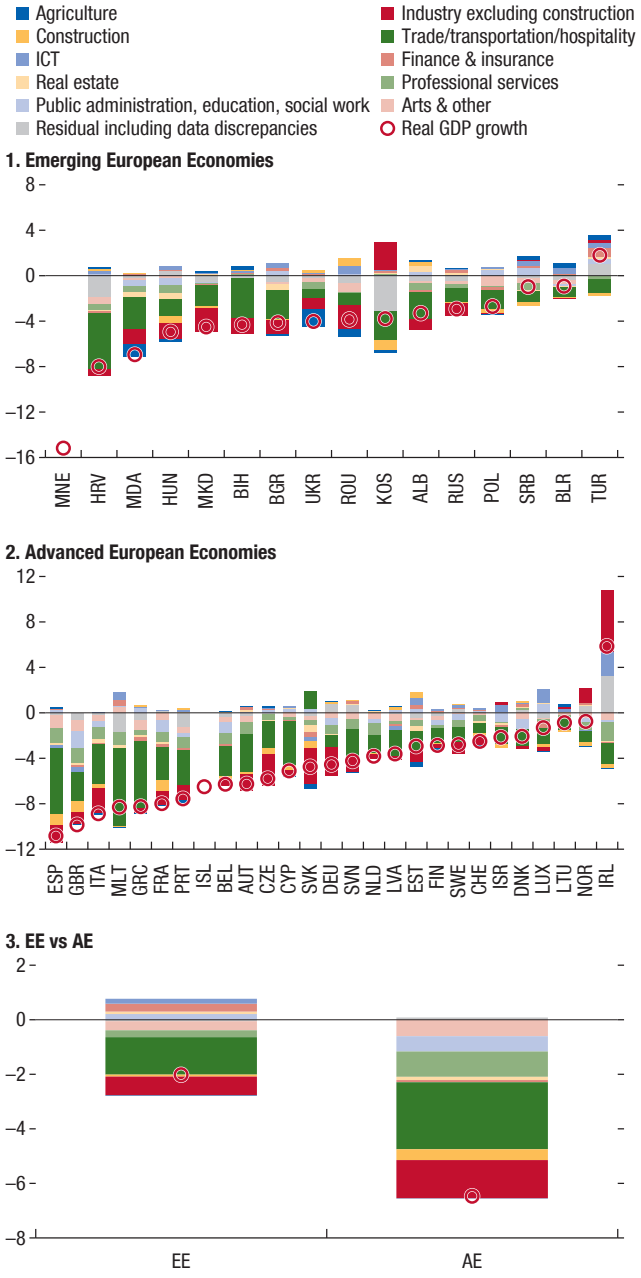
Several factors were likely at play in causing the observed growth differentials in Europe. As widely documented, the pandemic's impact varied dramatically across sectors (Figure 2.1; Figure 2.2, Panel 1). High contact intensity sectors, such as hospitality and trade, were the largest contributor to the recession in nearly all countries, followed by industry and professional services, while the expansion in information and communications technologies (ICT) helped mitigate the recession in many countries. Hence, differences in economic structure might explain the observed growth differential.

Growth outcomes during the pandemic were also associated with a range of other country fundamentals at the onset of the pandemic, as well as containment policies. Countries hit worse

Anil Ari (lead), Jean-Marc B. Atsebi and Mar Domenech Palacios prepared this chapter under the supervision of Jörg Decressin and the guidance of Jaewoo Lee and Petia Topalova. Ivanna Vladkova Hollar provided useful advice and comments. Vizhdan Boranova, Sabiha Mohona, and Samuel Victor Romero Martinez provided outstanding research assistance. Nomelie Veluz provided administrative support.

[1]Empirical estimates underlying the growth decomposition might suffer from endogeneity, anticipation effects, and omitted variable bias. For example, larger policy support packages were likely implemented in countries where the pandemic struck harder, and economies where the initial outbreak occurred later might have fared better as they had longer to prepare and adapt.

Figure 2.1. Real GDP Growth by Sectors, 2020
(Percent)



Sources: Haver Analytics; Eurostat; and IMF, World Economic Outlook database.
Note: Country abbreviations are International Organization for Standardization country codes. Montenegro and Iceland do not have a decomposition in panels 1 and 2, respectively, and are excluded from panel 3 due to lack of sectoral data. PPP GDP-weighted averages are shown in panel 3. Excluding Turkey and Russia from the averages reduces the GDP contraction gap between EE and AE by half. AE = advanced European economies; EE = emerging European economies; PPP = purchasing power parity.

by the pandemic (as measured by a sharper rise in excess mortality) and those that introduced more stringent containment measures experienced a deeper recession. On the other hand, lower median age was associated with better growth outcomes (Figure 2.2, Panels 2–4).

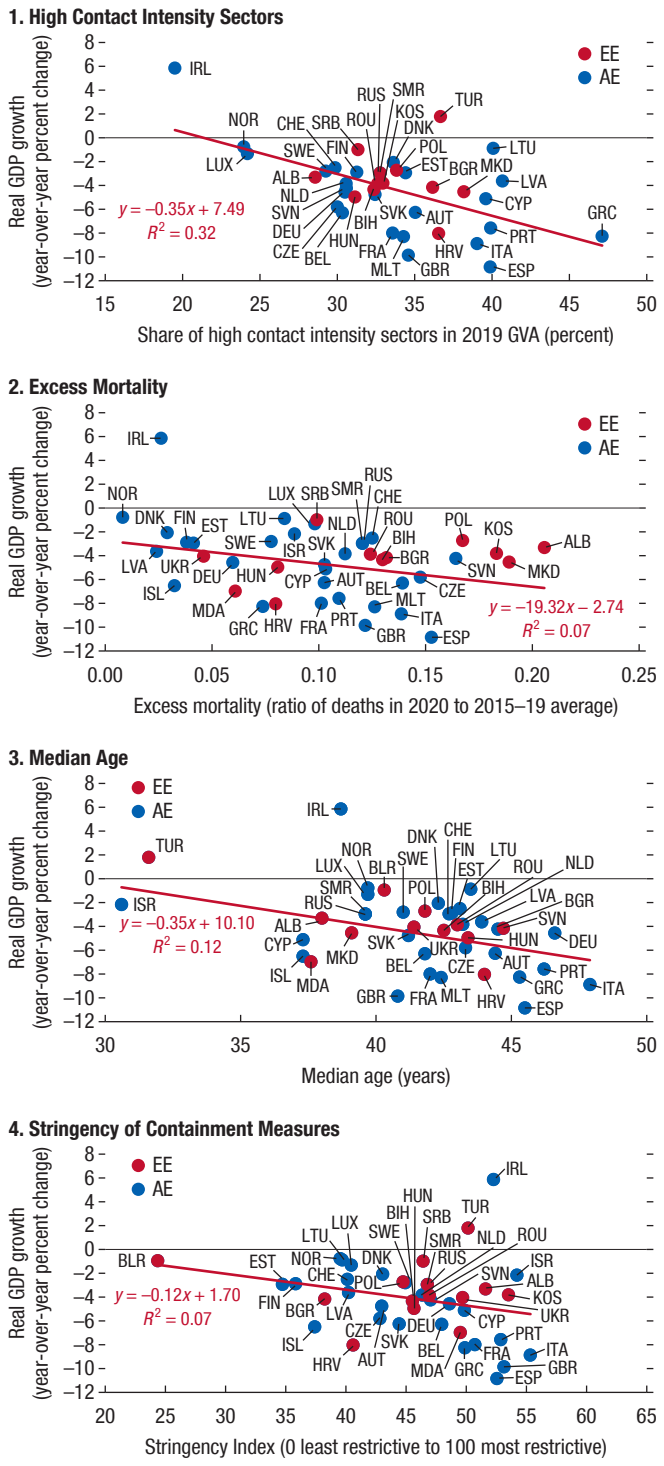
Although all countries responded to the pandemic with fiscal and monetary accommodations, the extent and form of policy support differed across Europe, and, in turn, influenced economic activity (Figure 2.3). Fiscal support measures, many of which were announced by June 2020 and augmented over the course of the pandemic, were substantially larger in advanced European economies. Emerging market economies in Europe were able to cut policy rates further, while advanced European economies relied to a greater extent on unconventional monetary policy instruments, because they entered the pandemic at or near the effective lower bound constraint.

Decomposing 2020 Growth

The chapter relies on several complementary empirical exercises to decompose 2020 real GDP growth rates of European countries into contributing factors.[2] First, 2020 growth is adjusted for pre-pandemic growth projections to account for differences in underlying growth and capture output losses that resulted from the pandemic. Second, for each country, actual output losses are benchmarked against a counterfactual where the country's sectoral composition is the same as the European average. The difference between the actual and counterfactual output losses indicates the contribution of differences in the sectoral mix within the sample of European countries. Finally, sectoral panel regressions are used to estimate the contributions of the decline in mobility, policy support, and initial country conditions at the onset of the pandemic.

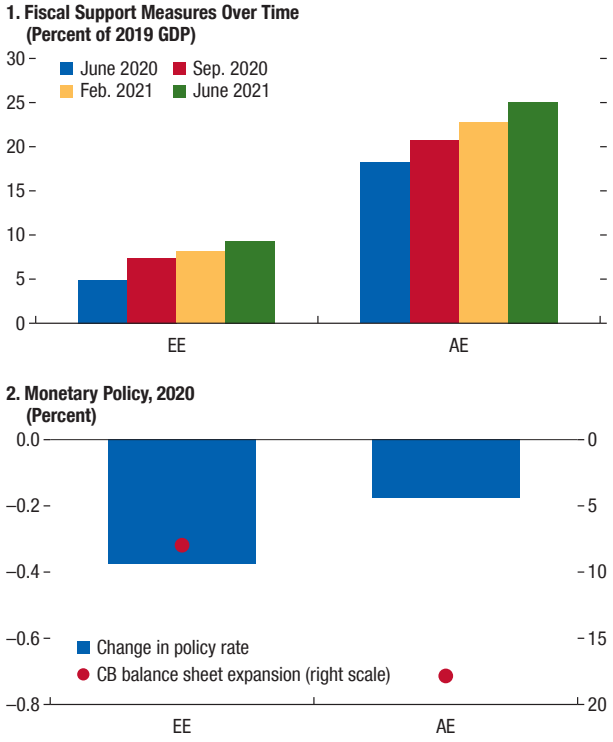
[2]See Online Annex 2.1 and Ari, Atsebi and Domenech Palacios (forthcoming) for further details on the methodology.

Figure 2.2. Correlates of Real GDP Growth, 2020



Sources: Haver Analytics; Eurostat; Karlinsky & Kobak, 2021; Blavatnik School of Government at the University of Oxford; IMF, World Economic Outlook database; and IMF staff calculations
Note: Country abbreviations are International Organization for Standardization country codes. AE = advanced European economies; EE = emerging European economies.

Figure 2.3. Policy Support During the Pandemic



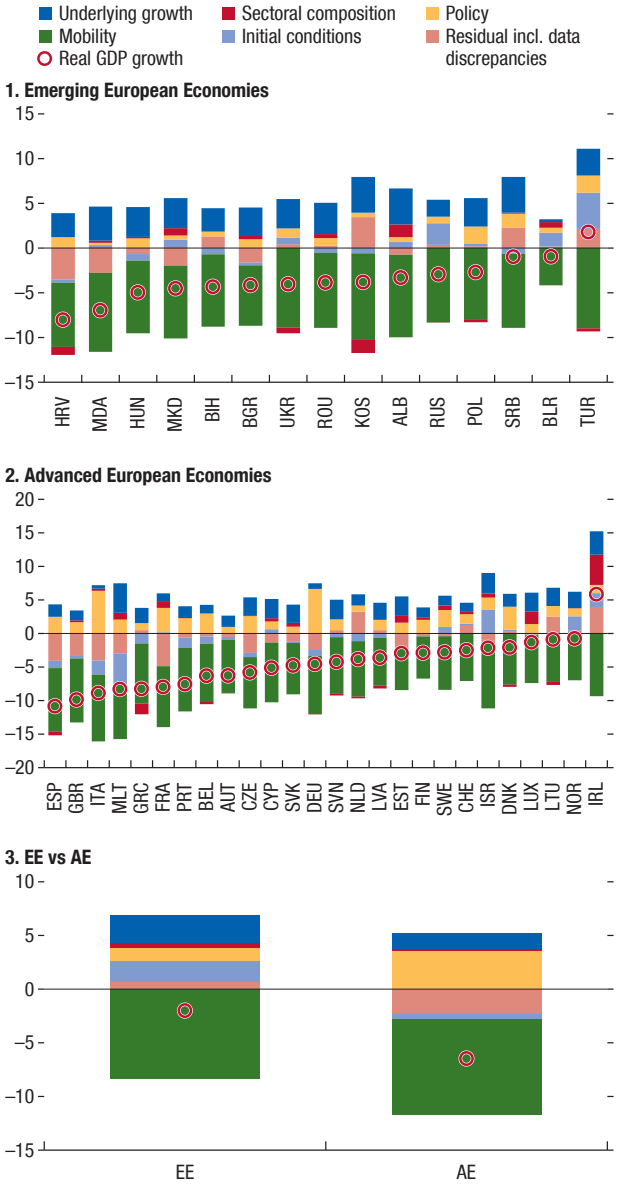
Sources: Haver Analytics; European Central Bank; National authorities; and IMF staff calculations.
Note: Total fiscal support measures include above-the-line, below-the-line, and liquidity measures. AE = advanced European economies; CB = central bank ; EE = emerging European economies.

The role of sectoral mix, initial conditions, and pandemic intensity

The growth decomposition exercise reveals several key patterns (Figure 2.4):

- Output losses because of the pandemic are significantly larger than the GDP contraction observed in 2020 given the positive contribution of underlying growth. The stronger underlying growth momentum in emerging market economies in Europe at the onset of the pandemic is an important contributor to their relatively milder recession.
- The single largest contributor to output losses in all countries is the decline in mobility. However, with similar changes in mobility across Europe (with Belarus being a notable exception), it accounts for a relatively minor share in the

Figure 2.4. Decomposition of Real GDP Growth, 2020
(Percent)



Sources: Haver Analytics; and IMF staff calculations.
Note: Country abbreviations are International Organization for Standardization country codes. PPP GDP-weighted averages shown in panel 3. AE = advanced European economies; EE = emerging European economies; PPP = purchase power parity.

differential outcomes across emerging and advanced economies in Europe.[3]

[3]These findings are consistent with the factors identified as the main drivers of the differential growth outcomes between Europe and the United States in the April 2021 *Regional Economic Outlook: Europe*—mobility contributed significantly, given the stark differences in mobility changes in Europe versus the United States.

- Sectoral composition plays an important role in shaping growth outcomes (Figure 2.2, panel 1). It has a large negative contribution to growth for economies with large tourism sectors, such as Spain and Greece, and a positive contribution for economies with large ICT sectors, such as Ireland (Figure 2.4).[4] However, sectoral composition is estimated to have had a limited role in explaining growth *differentials* between most European countries. This could be due to a number of reasons. First, differences in sectoral composition are relatively limited within Europe. Second, countries where contact-intensive sectors account for a large share of GDP typically have a low share attributed to industry, which was also hit hard during the initial wave of the pandemic, leading to an offsetting impact. Third and importantly, due to data constraints, the analysis in this chapter relies on a rather aggregated sectoral breakdown (see Figure 2.1), which might lack sufficient granularity to fully capture sectoral differences.[5]
- Initial conditions contributed significantly to the greater resilience in emerging market economies in Europe. Among those, health factors, specifically median age and population density, stand out in their importance, with the lower median age in emerging market economies in Europe likely limiting its population's vulnerability to the pandemic (Figure 2.5). Higher informality, which may have reduced the impact of containment measures on economic activity, also contributed positively to the growth differential. Conversely, the higher pre-pandemic current account surpluses among advanced economies somewhat offset

[4]The contribution of sectoral composition is computed by benchmarking actual output losses of each country against a counterfactual output loss where each sector's weight in GDP is equal to the PPP GDP-weighted average sectoral weight of European countries

[5]For example, tourism falls into the category "Wholesale and retail trade, transport, accommodation, and food service activities." This lack of granularity, together with the absence of highly tourism-dependent small island countries from the sample, explains the differences between this chapter's findings and those of studies that find that the share of tourism in GDP was a strong predictor of 2020 growth (see, for example, Milesi-Ferretti 2021).

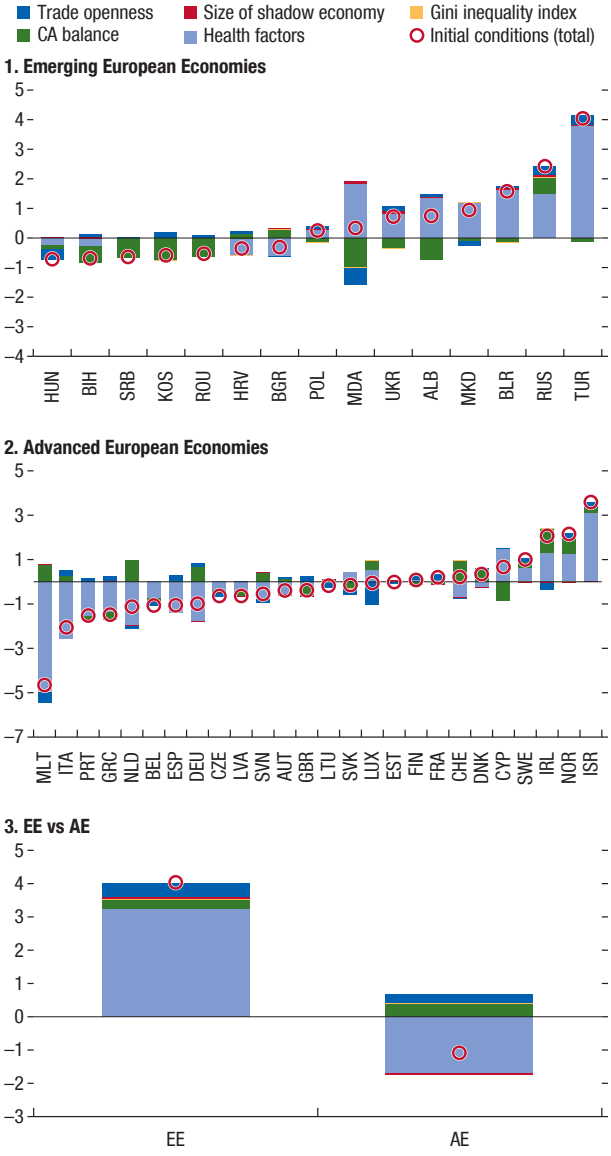
the advantage of emerging market economies in Europe possibly because they reflect a lower reliance on domestic demand, which was hit hard by containment measures.

The role of economic policies

The empirical analysis confirms the important role that economic policies played in cushioning the impact of the pandemic.[6] However, their quantitative contribution varies across countries, reflecting the size of policy support measures. Contrary to the advantageous role of initial conditions and pre-pandemic underlying growth, the more generous fiscal and quasi-fiscal (for example, state guaranteed loans) measures deployed in advanced European economies helped bridge the gap in economic performance relative to emerging market economies in Europe.[7] An important caveat, however, is that empirical estimates of fiscal and monetary policy multipliers underlying the growth decomposition analysis are likely to be biased downward because of a range of identification issues, including endogeneity, omitted variable bias, and anticipation effects.[8] For example, countries that were more vulnerable to the pandemic and its economic fallout likely deployed larger policy support measures. Households and firms might have also adjusted their behavior in anticipation of the transfers/liquidity support they expected to receive from policymakers. Finally, by exploiting the variation across countries, the analysis is unable to capture the full effect of the easy financial conditions that policymakers around the world ensured through their synchronous actions (for example, policy rate cuts and asset purchase programs). Thus, the estimated policy contributions in Figure 2.4 should be interpreted as a lower bound.

A calibration analysis, which relies on fiscal and monetary multipliers identified in prior literature, suggests that policy contributions could be substantially larger (Figure 2.6).[9] As discussed in Online Annex 2.2, the calibration analysis allows for heterogeneity in multipliers based on

Figure 2.5. Decomposition of Initial Conditions
(Percent)



Source: IMF staff calculations.
Note: Country abbreviations are International Organization for Standardization country codes. PPP GDP-weighted averages are shown in panel 3. Health factors is the sum of contributions from median age, hospital beds per capita, share of smokers in population and population density. AE = advanced European economies; CA = current account; EE = emerging European economies; PPP = purchasing power parity.

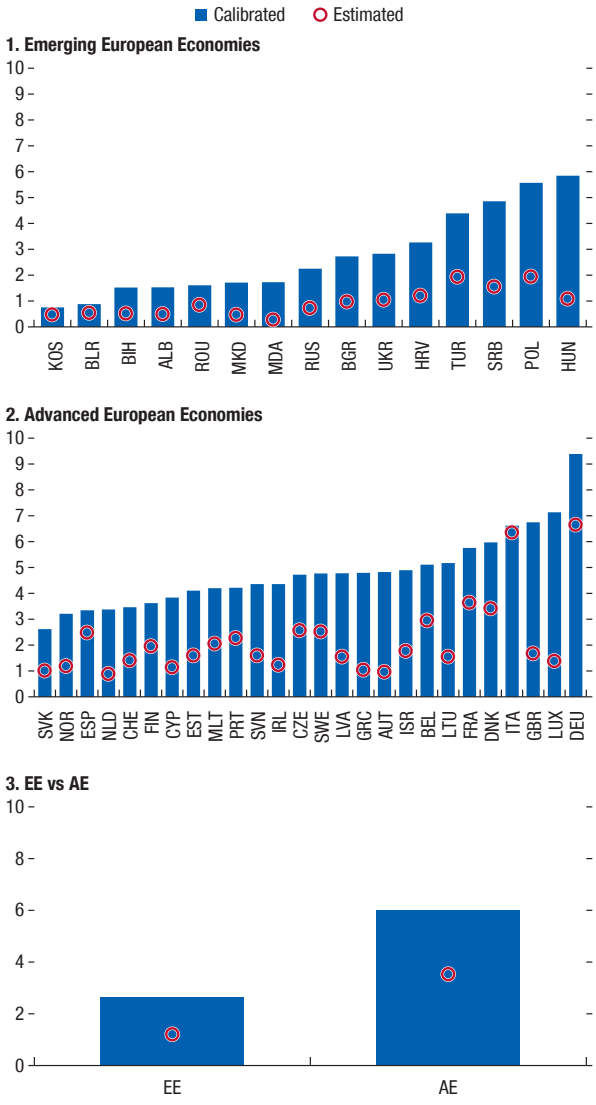
[6]Because of data constraints, the analysis is restricted to announced fiscal and monetary policies.

[7]See also Chudik, Mohaddes, and Raissi (2021), and the April 2021 *Fiscal Monitor* for discussions on the effectiveness of fiscal measures during the COVID-19 crisis.

[8]Downward bias in the estimated policy multipliers may have also caused the over-estimation of the contribution of other factors.

[9]See Online Annex 2.2 for further details on the calibration analysis.

Figure 2.6. Policy Contributions to Real GDP Growth, 2020
(Percent)



Source: IMF staff calculations.
Note: Country abbreviations are International Organization for Standardization country codes. PPP GDP-weighted averages are shown in panel 3. AE = advanced European economies; EE = emerging European economies; PPP = purchasing power parity.

the composition of policy support and country characteristics, yielding significantly higher effects of announced measures: raising the potential contribution of policies by more than 70 percent in advanced economies in Europe and more than doubling it in emerging market economies in Europe.[10]

[10]Chapter 1 of the April 2021 *World Economic Outlook* estimates that the contraction in global activity could have been at least three times worse in the absence of the extraordinary policy support. This chapter finds a similarly large policy impact for Europe, indicating that the decline in real GDP could have been twice as large without policy support.

Conclusions and Key Takeaways

The growth decomposition analysis presented in this chapter suggests that the substantial variation in the growth outcomes of European countries during the pandemic can be explained by differentials in underlying growth, a decline in mobility, pre-pandemic country fundamentals pertaining to health and macroeconomic factors, and policy support measures. The chapter also finds that the shallower recessions experienced in emerging market economies in Europe are due to their higher underlying growth and younger populations, which are less at-risk of serious illness from COVID-19 infections, despite more substantial policy support in advanced economies in Europe.

Going forward, these findings emphasize the importance of a gradual, careful, and well-communicated withdrawal of policy support as the recovery from the pandemic takes hold, especially in countries where macroeconomic and health fundamentals (such as low underlying growth, an aging population, and low vaccination rates) indicate greater vulnerability, and where ample fiscal space remains.

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3. Multi-Speed Sectoral Recovery and Reallocation Potential

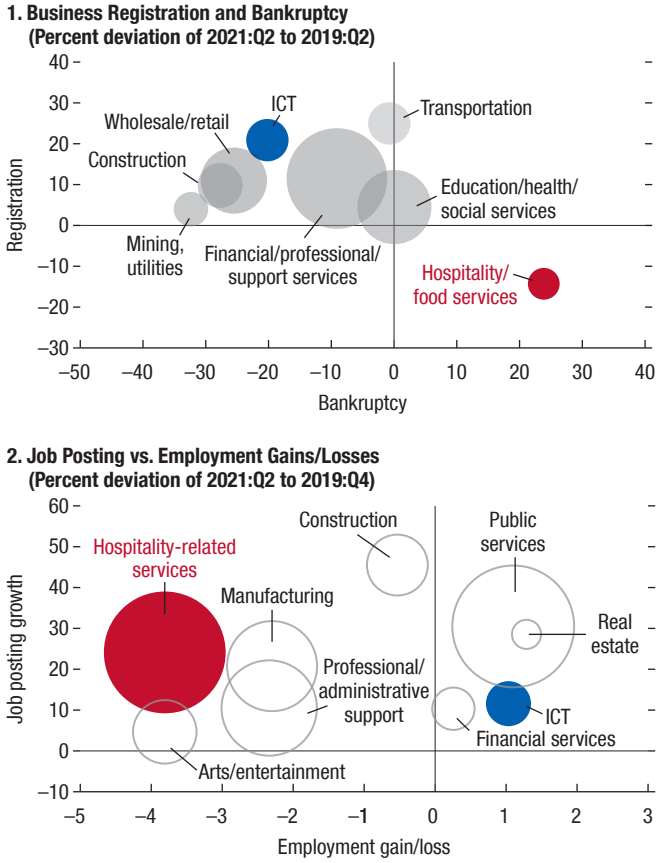
The COVID-19 crisis has hit some sectors far harder than others. A key question is whether this will lead to sizable reallocation of inputs in Europe over the medium term. Based on past experiences and advance signals from financial markets, this chapter finds that the pandemic is likely to accelerate reallocation, with transition challenges looming large especially for low-skilled workers who may have a hard time integrating into expanding sectors because of missing skills. Policies can play an important role in facilitating needed reallocation and minimizing the transition costs of those adversely affected.

One of the defining features of the COVID-19 pandemic has been its highly uneven impact across sectors. This is reflected not only in sectoral gross value added (GVA) (Chapter 2 of this *Regional Economic Outlook*) but also in business and job destruction and creation (Figure 3.1). Despite extraordinary policy support, hospitality-related services, such as food and accommodation, and arts and entertainment, have experienced a surge in bankruptcies, declining firm entry rates, and employment losses. Meanwhile, some sectors, such as information and communication technology (ICT) and finance and insurance, have thrived and continued to expand their operations and employment.

With a recovery underway despite resurgent virus waves (see Chapter 1 of this *Regional Economic Outlook*), a key question confronting policymakers is whether the asymmetry in sectoral performance will require long-lasting reallocation of factors of production. And if that is indeed the case, how could policies help this transition? Against this background, the chapter seeks to examine the COVID-19-induced reallocation needs and the associated transition costs. It does so by: 1) assessing the likely reallocation of labor over the medium term based on sectoral forecasts and advance signals from financial markets; 2) investigating the labor market reallocation costs and frictions; and 3) revisiting the role of policies with an eye on reallocation-enhancing measures

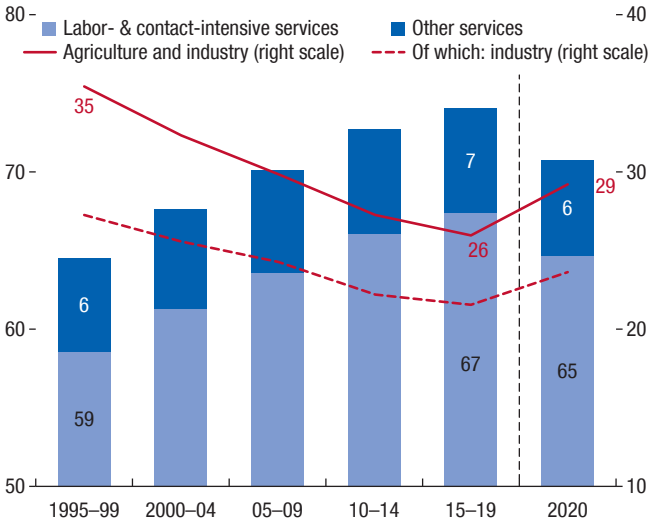
La-Bhus Fah Jirasavetakul, Francois Miguet, Agustin Roitman, Jorge Salas, and Jing Zhou (lead) prepared this chapter under the supervision of Jörg Decressin and the guidance of Jaewoo Lee and Petia Topalova. Vizhdan Boranova and Sabiha Mohona provided outstanding research assistance. Nomelie Veluz provided administrative support.

Figure 3.1. Expanding and Contracting Sectors during the COVID-19 Crisis



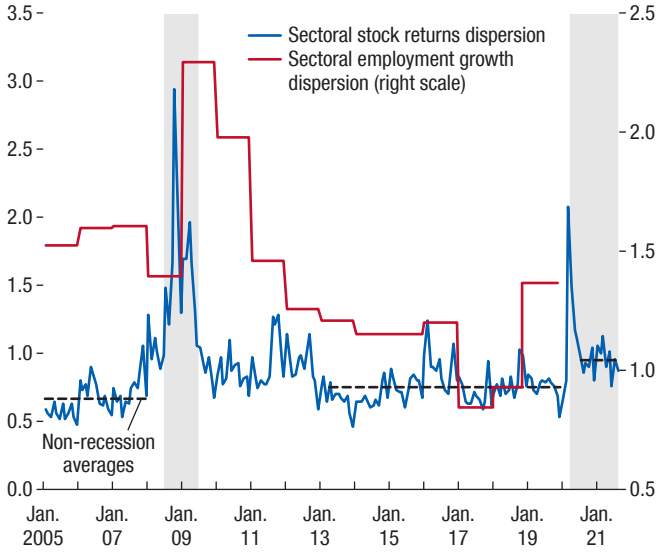
Sources: Eurostat; Indeed; and IMF staff calculations.
Note: Panel 1 is based on averages of Belgium, Bulgaria, Croatia, Estonia, France, Germany, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, The Netherlands, Norway, Poland, Portugal, Romania, Slovakia, and Spain. Panel 2 is based on averages of Austria, France, Germany, Iceland, Ireland, Italy, Luxembourg, The Netherlands, Poland, Spain, Sweden, Switzerland, and the United Kingdom. The size of the bubbles in Panel 1 and 2 reflect the sectoral GVA and employment, respectively. GVA = gross value added; ICT = information and communication technology.

Figure 3.2. Sectoral Employment Shares: 1995–2020
(Percent of total)



Sources: Eurostat; and IMF staff calculations.
Note: Employment-weighted average of European countries.

Figure 3.3. Reallocation and Business Cycles
(Percent)



Sources: Refinitiv Eikon; EUKLEMS; Eurostat; and IMF staff calculations.
Note: Stock returns dispersion measures the standard deviation of Europe FTSE sectoral stock index return rates. Employment growth dispersion measures the absolute gap between sectoral and aggregate employment growth. Shaded areas represent global financial crisis and COVID-19 crisis. See Online Annex 3.2 for further details.

already implemented or planned to support the recovery in Europe.[1]

COVID-19: A Reallocation Shock

Expansion of the service sector interrupted by the COVID-19 crisis

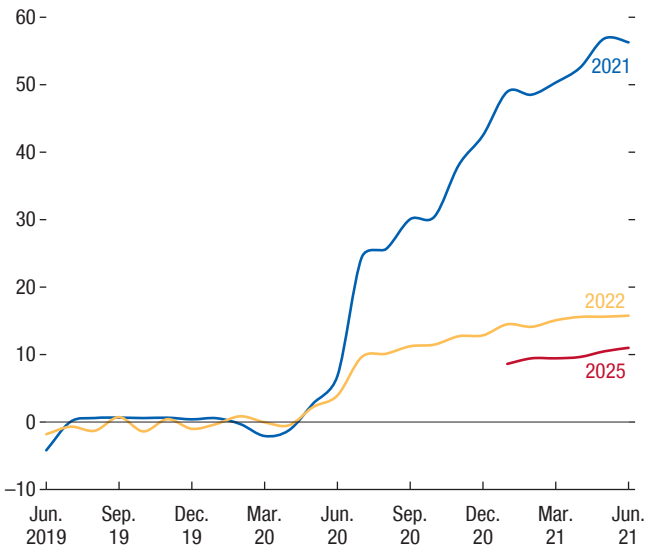
Before the pandemic, the service sector had steadily expanded its share in employment across European economies. This structural transformation reflected changes in demand, technology, and tradability (Chapter 3 of the April 2018 *World Economic Outlook*). Workers released from agriculture and manufacturing jobs were gradually absorbed into the expanding service sector, including in the more labor-intensive and contact-intensive service activities (Figure 3.2). The COVID-19 crisis interrupted this trend, affecting some of the previously expanding sectors the most.

Accelerated reallocation during recessions

Intensified sectoral reallocation usually accompanies economic downturns (see Aaronson and others, 2004; and Chapter 3 of the April 2021 *World Economic Outlook*), and the COVID-19 crisis seems to be no exception. The widely used indicator of reallocation—proxied by sectoral stock return dispersion (Barrero and others, 2020)—more than doubled at the onset of the pandemic, reaching a level not seen since the global financial crisis (Figure 3.3). While sectoral return dispersion retreated after the initial spike, it has hovered at levels significantly higher than before the pandemic. Along with other defining features of the COVID-19 crisis—the highly unequal impacts across sectors, the sheer size of the shock, and the feedback loop between recession

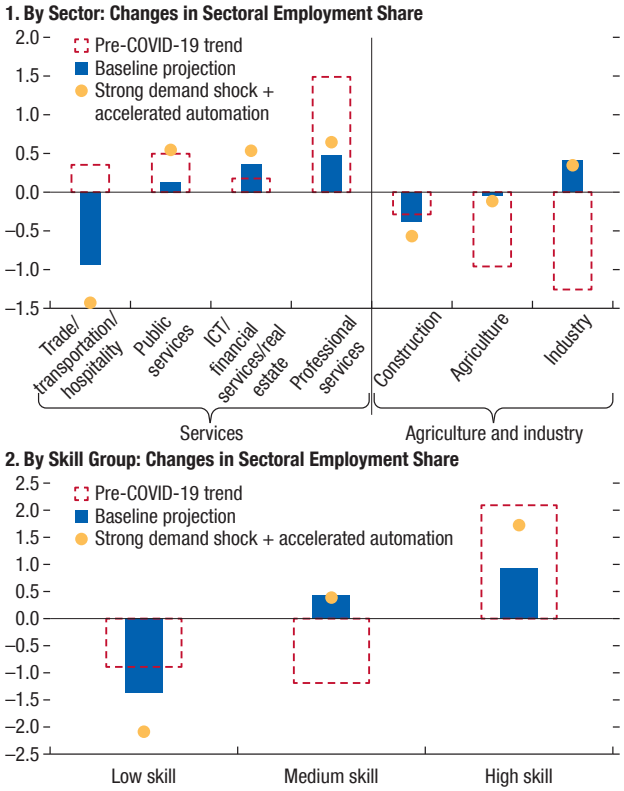
[1]This chapter complements Chapter 3 of the April 2021 *World Economic Outlook* by quantifying the potential COVID-19-induced reallocation needs, estimating the costs associated with past reallocations, zooming into detailed skill and knowledge gaps of the most-affected workers, and documenting the reallocation-related policy measures already implemented or introduced in Europe in response to the COVID-19 crisis.

Figure 3.4. Difference in Earnings Forecasts between Less-Affected and Hard-Hit Sectors
(Percent)



Sources: Refinitiv Eikon; IBES; and IMF staff calculations.
Note: Lines show differences in expected earnings growth (annualized relative to precrisis level) between professional, technology, and science sector (less-affected) and accommodation and food services sector (hard-hit). See Online Annex 3.1 and Miguet and others (forthcoming) for further details.

Figure 3.5. Potential Labor Reallocation in the Medium Term
(Percentage points, 2026 relative to 2019)



Sources: Eurostat; and IMF staff calculations.
Note: Employment-weighted averages of European countries. Pre-COVID-19 trend is proxied by changes during 2004–19.

and reallocation[2]—this suggests that uneven sectoral performance and elevated reallocation of resources may be a persistent feature of the post-pandemic economy.

Lingering COVID-19-induced headwinds for hard-hit sectors

Analysis of firm-level earnings forecasts indeed points to lingering headwinds to the sectors hit hardest during the pandemic (Figure 3.4 and Online Annex 3.1). Even five years after the onset of the pandemic, earnings of firms in accommodation and food services are expected to grow significantly less than those in professional and science services, taking into account pre-pandemic differences in earnings potential.

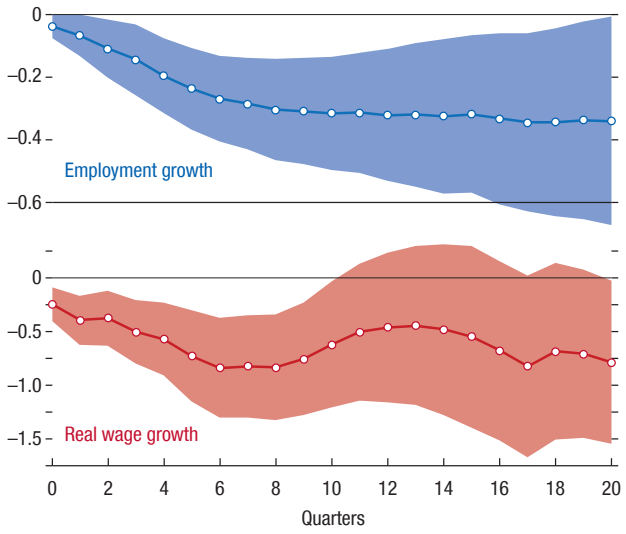
[2]For instance, Mortensen and Pissarides (1994) show that it is easier for firms to fill jobs in recessions, given labor market slack. Chodorow-Reich and Wieland (2020) find that reallocation, in addition to lower aggregate demand, contributes to higher unemployment during recessions.

Using these earnings projections to forecast sectoral GVA suggests a multi-speed recovery across sectors over the medium term. Output from contact-intensive sectors is expected to remain subdued over the next five years, while high-skilled services are projected to gain share. The dispersion in sectoral GVA growth would remain significantly higher than in the pre-COVID-19 period throughout the medium term (Online Annex Figure 3.1.2).

Reallocation needs for the low-skilled

The multi-speed sectoral recovery in output will be associated with substantial reallocation of labor (and other factors of production). Country- and sector-specific estimates of the relationship between output and employment suggest that

Figure 3.6. Reallocation and Labor Market Dynamics
(Percent)



Sources: Haver Analytics; Refinitiv Eikon; and IMF staff calculations.
Note: The lines represent the change in employment and real wage growth associated with one standard deviation increase in reallocation index, measured as inter-sector stock return dispersion. The shade is the 95-percent confidence interval. See Online Annex 3.3 for further details.

a sizable share of workers in contact-intensive services would need to find employment in other activities (Figure 3.5 and Online Annex 3.2).[3,4] In the baseline projection, the employment share of hospitality-related sectors would fall by nearly 1 percentage point, disrupting the increases in previous years. By contrast, the share of ICT, finance, and real estate workers would increase by about 0.4 percentage point, accelerating its pre-pandemic trend by a factor of two. Needed reallocation could be larger if changes in consumer and worker preferences lead to stronger-than-envisaged demand shocks and/or if the pandemic accelerates preexisting trends of automation and digitalization.[5]

Several factors could make such a reallocation particularly challenging. First, if the past is any guide, employment in contact-intensive services is sensitive to fluctuations in output. Thus, the sizable (and likely long-lasting) shock to these sectors during the pandemic could engender outsized employment responses. The projected decline in the employment share of these services would be a notable break from the gains they had experienced in the decades leading to the pandemic. Second, the hard-hit sectors employ a large number of low-skilled and young workers, already with more tenuous job prospects and often with precarious employment arrangements, which make them particularly vulnerable in the labor market. Finally, as discussed in Chapter 3 of the April 2021 *World Economic Outlook*, the COVID-19 shock may accelerate automation trends, which would amplify reallocation needs. On the other hand, certain high-skill services, such as ICT, finance, and professional services, are expected to gain employment shares at a pace significantly faster than prior to the pandemic in some cases.[6] This would not be an inconsequential change given the high knowledge and skill requirements of these sectors.

Potential Reallocation Frictions Ahead

Dimmed labor market prospects associated with reallocation

Reallocation of factors of production could improve allocative efficiency and ultimately raise productivity and output. However, it can have sizable adjustment costs due to frictions in factor markets. The historical evidence from 22 European economies over the past two decades suggests that reallocation is often accompanied

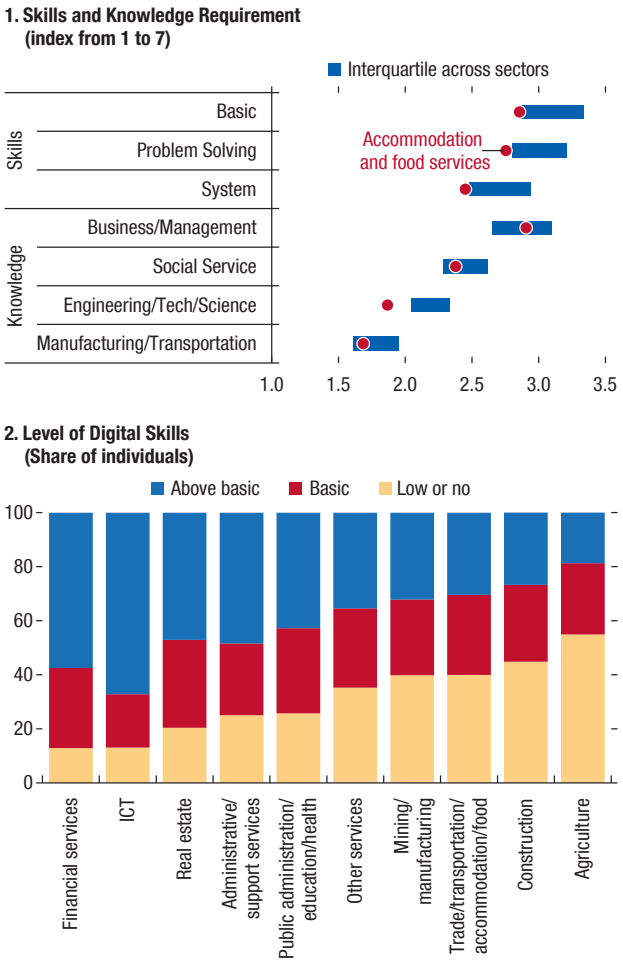
[3]The projected reduction in the employment share of contact-intensive services and/or low-skill sectors is much larger than the rates indicated by the pre-COVID-19 trend (Figure 3.5), highlighting the pandemic-induced needs for reallocation from these sectors toward other activities.

[4]Despite differences in the assumed no-pandemic counterfactuals, the expected direction of cross-sector reallocation is broadly in line with the findings for select large European countries using different methodologies and focusing on a longer time span (Ando and others, forthcoming).

[5]In alternative scenarios, demand shocks and automation are assumed to be stronger than in the baseline, because of larger and more permanent changes in consumer and worker preferences. Stronger demand shocks will directly affect sectoral production and GVA, while faster automation will result in fewer labor inputs for a given level of output. For further details, see Online Annex 3.2.

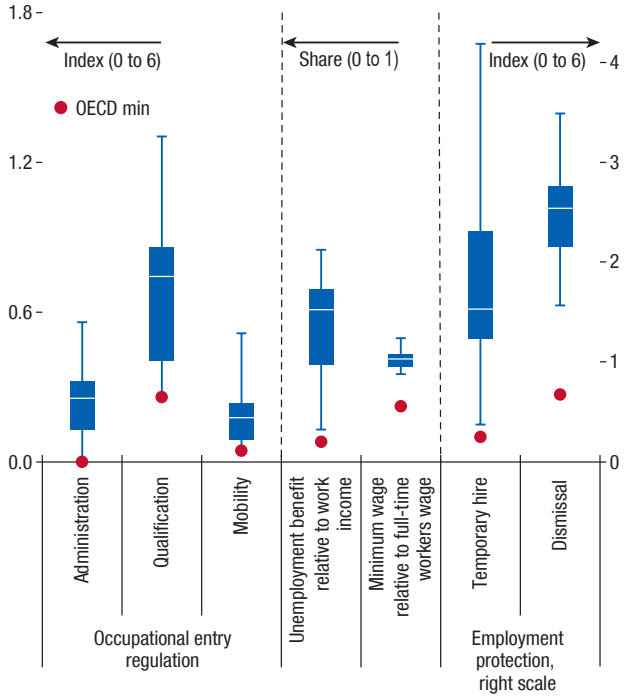
[6]The projected increase in the industrial employment share reflects a relatively faster return to trend GVA growth and relatively greater labor intensity rather than a large-scale expansion in absolute terms.

Figure 3.7. Skills and Knowledge Across Sectors



Sources: Eurostat; O*Net; and IMF staff calculations.
Note: Unweighted averages of Albania, Austria, Belgium, Bulgaria, Bosnia and Herzegovina, Croatia, Cyprus, Czech Republic, Denmark, Germany, Estonia, Hungary, Iceland, Ireland, Italy, Lithuania, The Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Switzerland, Turkey, and the United Kingdom. 2019 or latest year available.

Figure 3.8. Labor Market Regulations



Source: OECD; and IMF staff calculations.
Note: Occupational entry regulation and employment protection are both an index ranging from 0 (absence of regulations or no protection) to 6 (fully regulated market or most protection). Unemployment benefit replacement rate takes the value for 6-month duration. Interquartile ranges across OECD European countries. Countries vary depending on the indicator. OECD = Organisation for Economic Co-operation and Development.

by subdued employment and wage growth for years to come (Figure 3.6 and Online Annex 3.3). In particular, employment and real wage growth would fall by as much as 0.3 and 0.8 percentage point, respectively, in response to a reallocation shock of typical size.

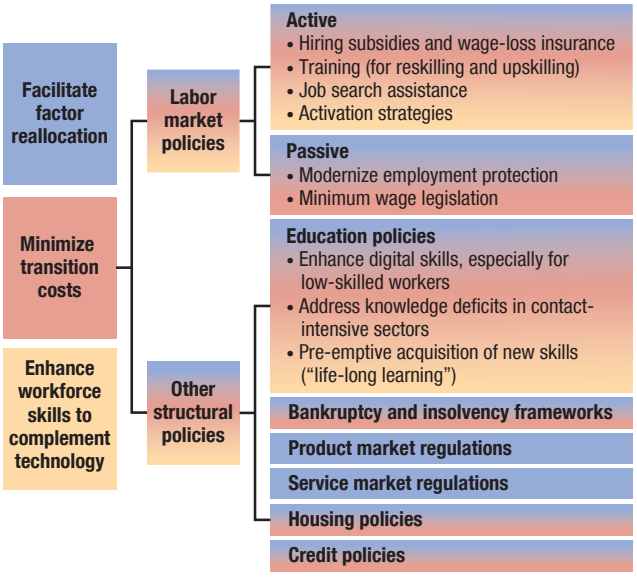
The search for and matching of displaced workers takes time due to information asymmetries and wage and other rigidities in the labor market. Reallocations across sectors could be particularly challenging, especially if the downsizing sectors' labor characteristics substantially differ from the rest of economy. Along the transition, the low-skilled and young workers may face particularly tenuous prospects, given the low likelihood of job finding and on-the-job sectoral switch during recessions (Chapter 3 of the April 2021 *World Economic Outlook*).

Skill and knowledge gaps of the low-skilled

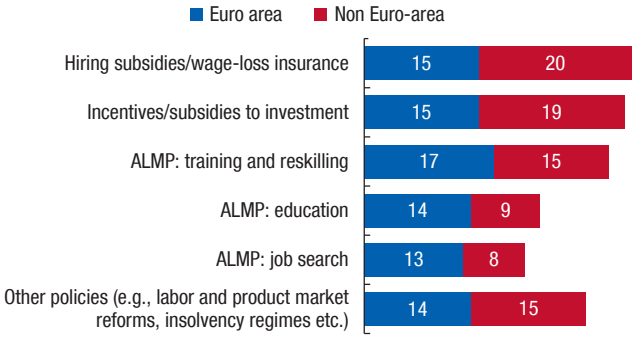
These concerns are certainly relevant at the current juncture. Detailed information on the skills and knowledge requirements of various occupations and the occupational mix across sectors reveal that, on average, workers in contact-intensive sectors, such as accommodation and food service, are at the lower end of the distribution of skills and knowledge (Figure 3.7, Panel 1). In terms of knowledge, the most notable gap is in the areas of technology, science, and engineering. The preexisting shortage of digital skills of workers

Figure 3.9. Policies to Support Structural Transformation

1. Coping with Reallocation Needs: A Toolkit



2. Policies Implemented/Planned in Response to COVID-19 (Number of countries)



Sources: IMF survey on reallocation policies; and IMF staff calculations.
Note: ALMP = active labor market policies.

in the hard-hit sectors (Figure 3.7, Panel 2) emphasizes the need for upskilling to facilitate their adaptation to the pandemic-induced acceleration in digitalization.

Labor market regulations: Reallocation enhancing or dampening?

In addition to knowledge and skills, labor market regulations (including those related to occupation entry, unemployment benefits, and employment protection) could play an important role in shaping worker flows and the adjustment costs associated with job transitions. Although the empirical evidence is not conclusive, studies tend to find that overly stringent regulations lower labor market fluidity and raise reallocation costs by discouraging both job destruction and creation.[7] Nonetheless, this does not imply that their stringency should be reduced, since these regulations are essential in protecting workers and customers. However, given the large heterogeneity of such regulations across Europe (Figure 3.8), areas that create unnecessary rigidities—for instance, mobility restrictions and administrative burdens—may warrant a review.

Policy Implications and Conclusion

The analysis presented in this chapter suggests that the COVID-19 pandemic could result in a sizable reallocation of labor, especially among the low-skilled and young workers, as they are disproportionately employed in the sectors hardest hit by the pandemic. Given the particular challenges that these workers might face to integrate themselves into expanding sectors, policies could play an important role in supporting the structural transformation ahead (Figure 3.9, Panel 1), by facilitating the reallocation of labor, minimizing the adjustment costs faced by those adversely affected, and, more broadly, enhancing the skills of the workforce to adapt to technological change. As the recovery strengthens, policies are stepping up toward facilitating the reallocation of resources (Figure 3.9, panel 2, and Online Annex 3.4).

Active labor market policies— well-calibrated to country-specific conditions and institutional capabilities—could support job-to-job transitions, through hiring subsidies, wage-loss insurance, training, job search assistance and activation strategies (OECD 2021). On a temporary basis while uncertainty remains high, targeted hiring

[7]See for instance, OECD (2010), for a literature review.

subsidies can encourage firms to hire new workers and wage-loss insurance schemes can incentivize workers to seek new jobs.

Well-designed education policies can mitigate skill mismatches while jobs are being destroyed and created. Reskilling and upskilling, including curricula reforms in schools and vocational training, should focus on enhancing digital skills and fostering preemptive acquisition of new skills through lifelong learning to address knowledge deficits.

Involving the private sector, by providing training subsidies to firms and individuals, can help align labor market supply with needs, which has sometimes been challenging in a number of European economies even before the COVID-19 pandemic. Training subsidies should be targeted at smaller firms (which invest proportionally less in training [OECD 2019]) and vulnerable groups, such as lower-skilled workers and those on temporary contracts.

Other structural policies can complement active labor market and education policies. Rapid bankruptcy procedures and well-designed insolvency frameworks would help free up resources. Reducing rigidities (including excessive regulation) in product markets and improving access to credit for viable firms and workers in transition would also foster reallocation.

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