



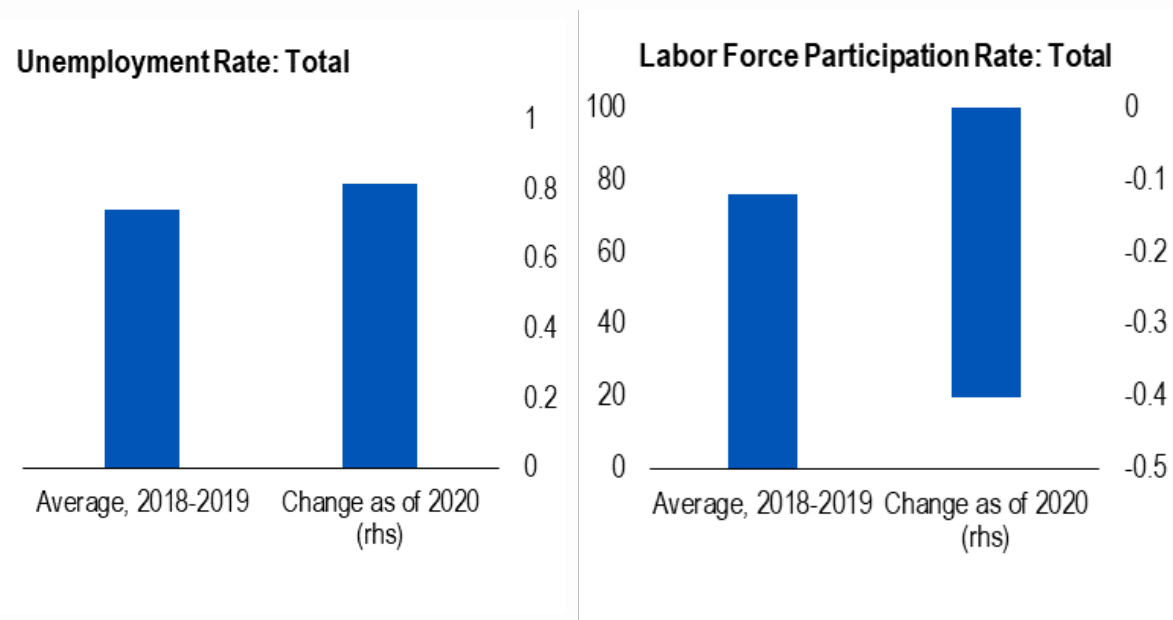
Recession and Recovery in Labor Markets: Patterns, Policies, and Responses to the COVID- 19 shock

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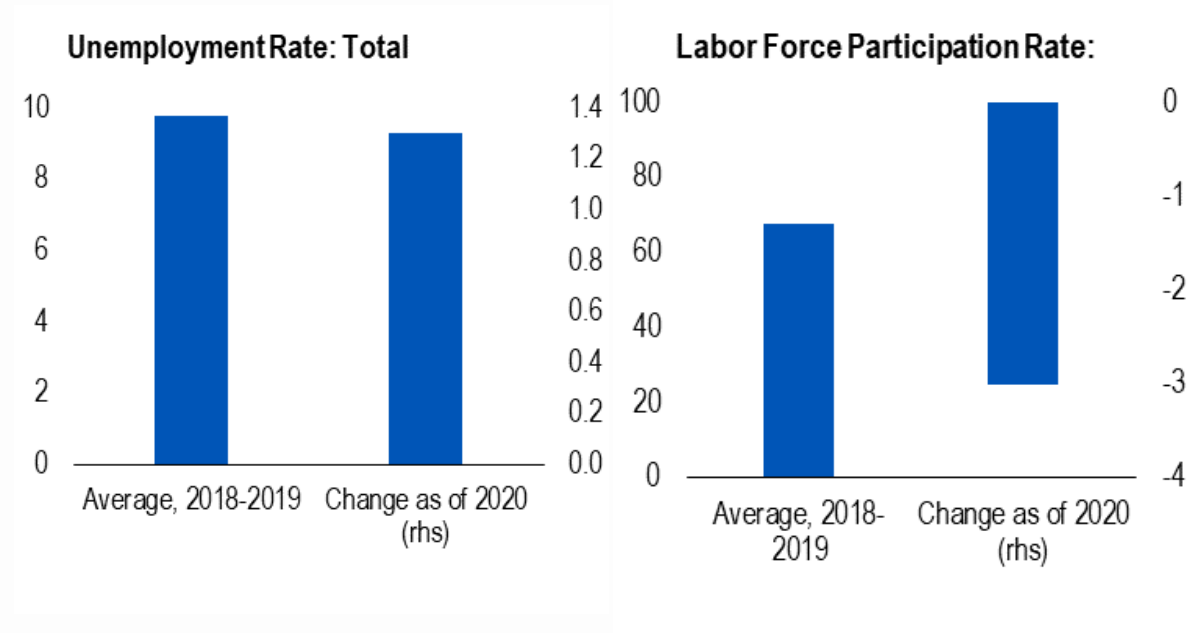
COVID-19 causing sharp labor market deteriorations

- Economic disruptions and worker dislocations globally around the world
- Average unemployment rates are up and labor force participation down compared with their pre-pandemic averages in both advanced and emerging market and developing economies

Labor Market Conditions in Advanced Economies
(Percentage points)



Labor Market Conditions in Emerging Market and Developing Economies
(Percentage points)



Unequal impacts across groups of workers

- Low-skilled and youth particularly hard hit across the world
- Signs that women in emerging markets and developing economies affected more

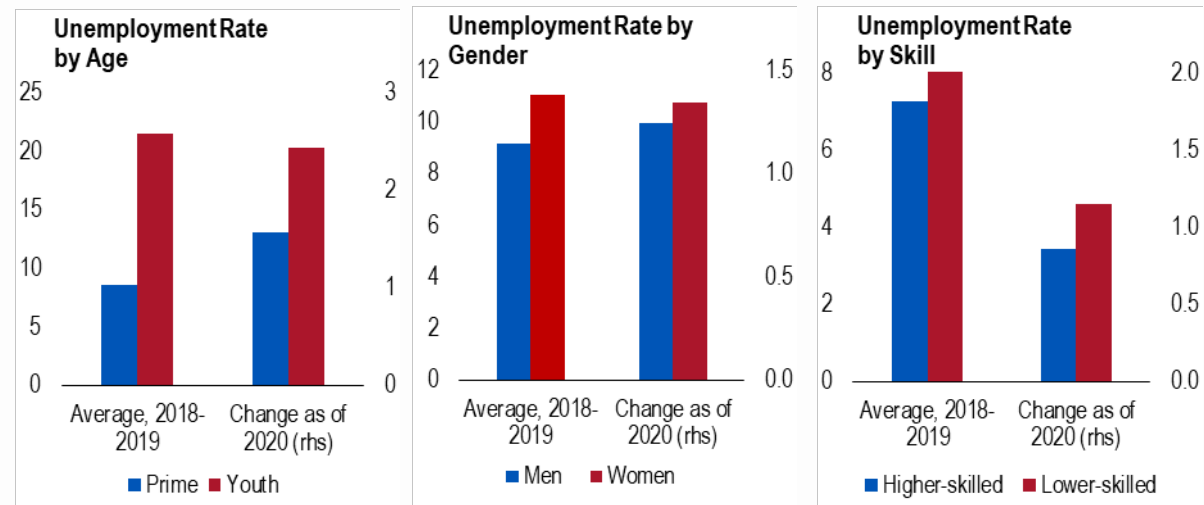
Labor Market Conditions in Advanced Economies

(Percentage points)



Labor Market Conditions in Emerging Market and Developing Economies

(Percentage points)

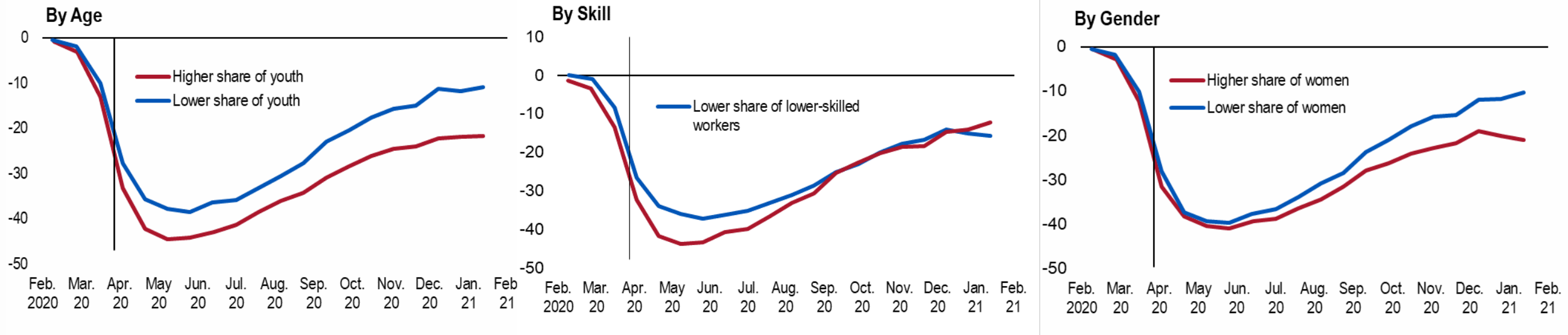


Unequal impacts also visible in job postings

- Data on trends in online job postings suggest that sectors that tend to have more youth, women, or lower-skilled workers are likely to have underperformed more than other sectors

Changes to Sectoral Online Job Posting Trends

(Percent; gap in trend from a year ago, indexed to Feb. 1)



Key questions

- What is the sectoral character of the COVID 19 pandemic recession so far and how does it compare with past recessions?
- How have labor market inflows and outflows across sectors behaved in recessions and recoveries? Do recessions tend to amplify sectoral employment trends (in vulnerability to automation)?
- How do individual-level labor market outcomes (including sectoral and occupational transitions and earnings changes) behave and differ across demographic groups (such as gender, age, and skill) and the business cycle?
- How effective are labor market policies encouraging job retention versus worker reallocation against the adverse effects from asymmetric shocks across sectors and occupations? Does the persistence of the shock matter?

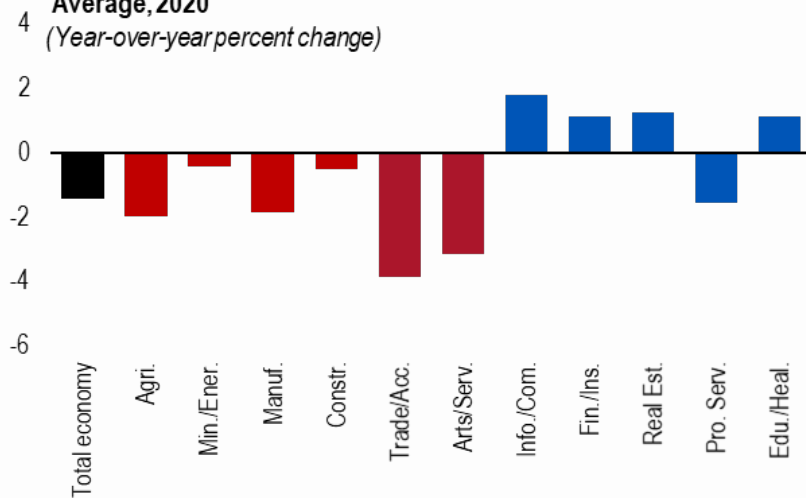
Sectoral Shocks, Trends in Reallocation, and the Business Cycle

Sectors hit unevenly by COVID-19 and differently than past recessions

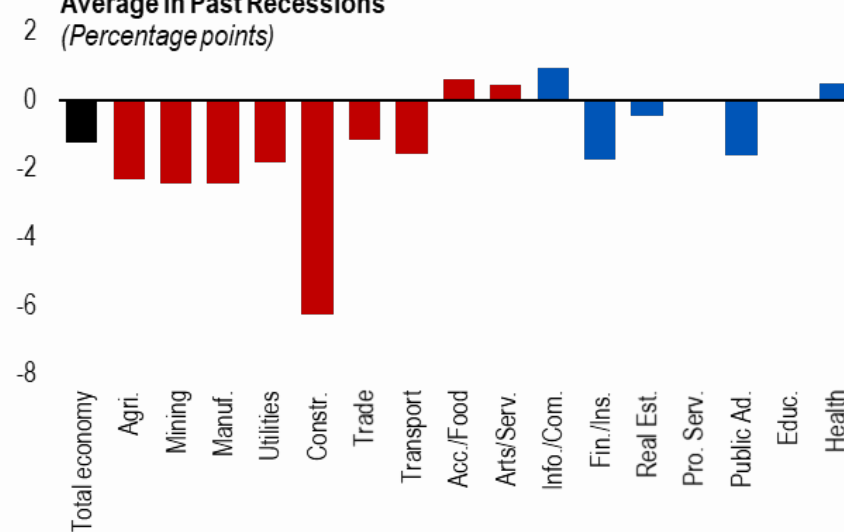
- Services more vulnerable to automation hurt more, reinforcing trend towards less vulnerable and higher skill services

Sectoral Employment Growth and the Business Cycle

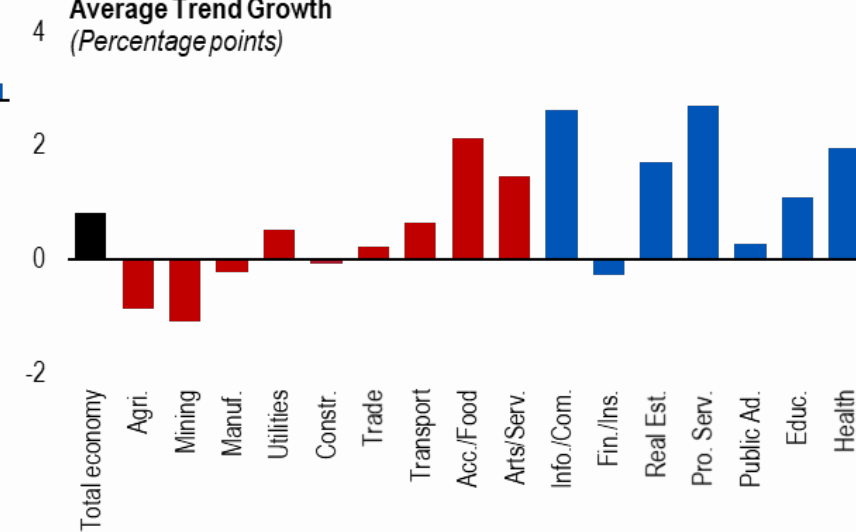
Average, 2020
(Year-over-year percent change)



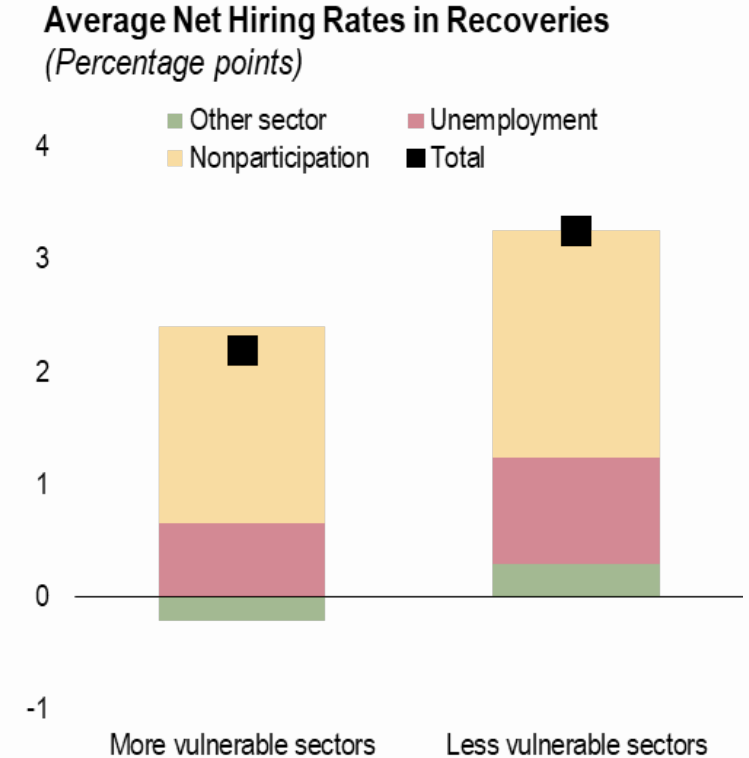
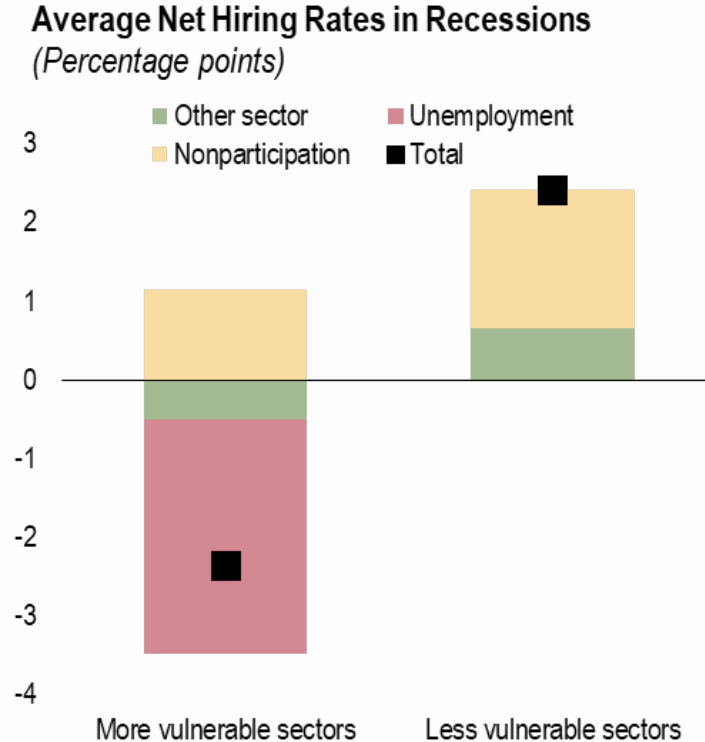
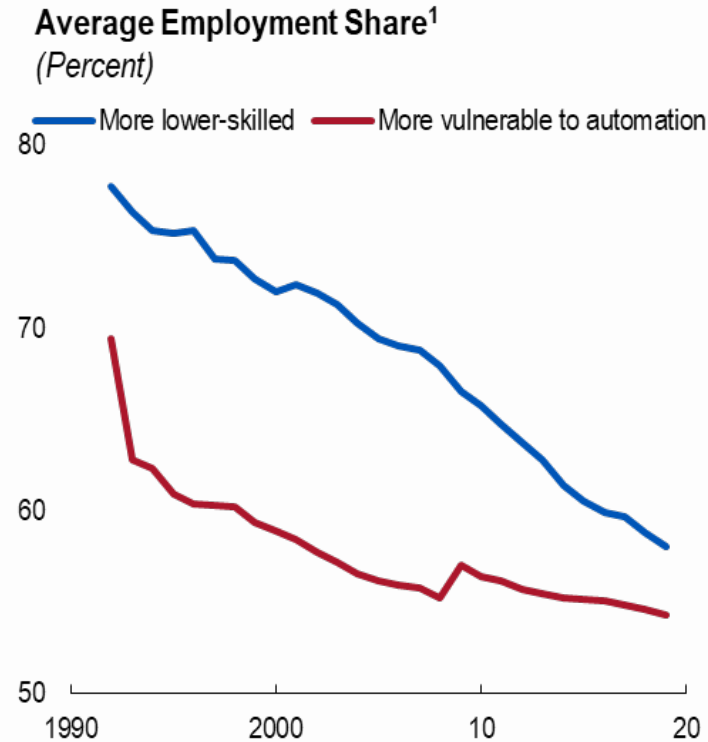
Average in Past Recessions
(Percentage points)



Average Trend Growth
(Percentage points)



Sectors More Vulnerable to Automation are Harder Hit, Similar to Past Recessions



- Employment has been shifting away from sectors that are more vulnerable to automation, and the share of employed workers with lower skills has fallen
- The shift results from net hiring of workers from unemployment and nonparticipation
- During recessions when sectors that are more vulnerable to automation exhibit large outflows into unemployment

Labor Market Transitions, Inequality, and Recessions

Empirical strategy to estimate labor market transitions

- Linear probability model (LPM) of labor market transitions at the individual level (with weights):

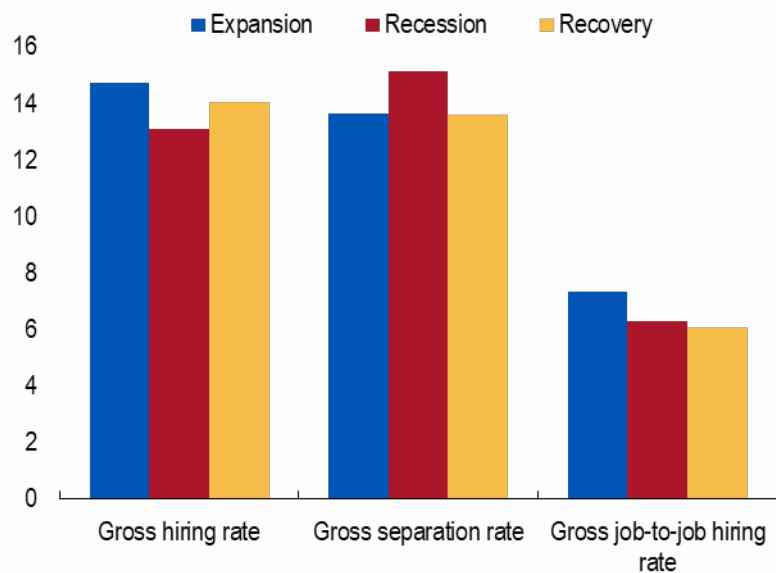
$$outcome_{ict} = \gamma_{ct} + \beta X_{ict} + \varepsilon_{ict}$$

where X_{ict} is a vector of individual (i) level socio-economic characteristics. γ_{ct} are country-year FE

- Outcomes
 - Job findings: individuals who were unemployed last year and found a job this year
 - Separations: individuals who, conditional on being employed last year, lost their job this year
 - Sectoral and occupation transitions: individuals who changed sector or occupation in the last year
 - Focus both on on-the-job and via-unemployment occupational reallocation
 - We will also consider earning consequences associated with reallocation

Youth and the Lower-Skilled were also Most Affected in Past Recessions

Labor Market Turnover across Business Cycles
(Percent)



Average Probabilities across Demographic Groups¹
(Percentage point deviation from the base group)



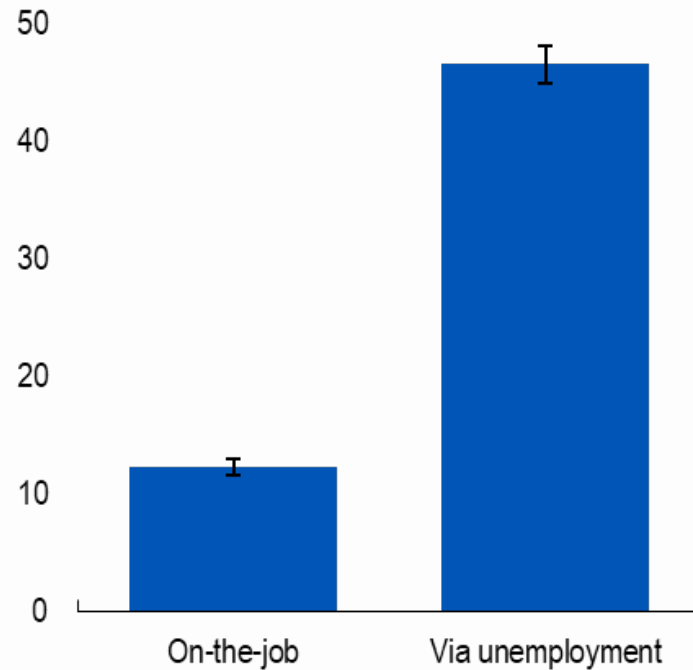
Average Probabilities across Demographic Groups in Recessions¹
(Percentage point deviation from the base group in recessions)



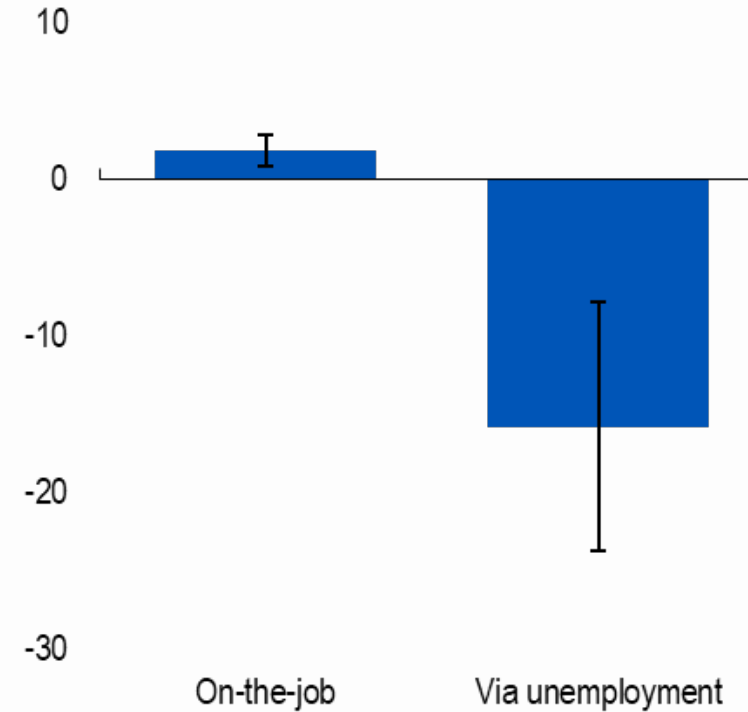
- The probability of finding a job is lower in recessions and recoveries than in expansions, while the reverse is true for job separations
- Youth tend to be disadvantaged in finding a job and more likely to lose one than prime-age workers in a downturn
- Women have seen smaller drops in job finding and rises in separations than men during a recession
- Lower-skilled have a higher likelihood of finding a job than the higher-skilled, but also of losing it in a recession. The separation effect likely dominates

Switches in Occupations are More Frequent After Unemployment Spells and Inflict Earnings Penalties

Occupational Switch Probability
(Percent, conditioned on the same labor market)



Earnings Change due to Occupational Switch
(Percent, deviation of switchers from stayers)



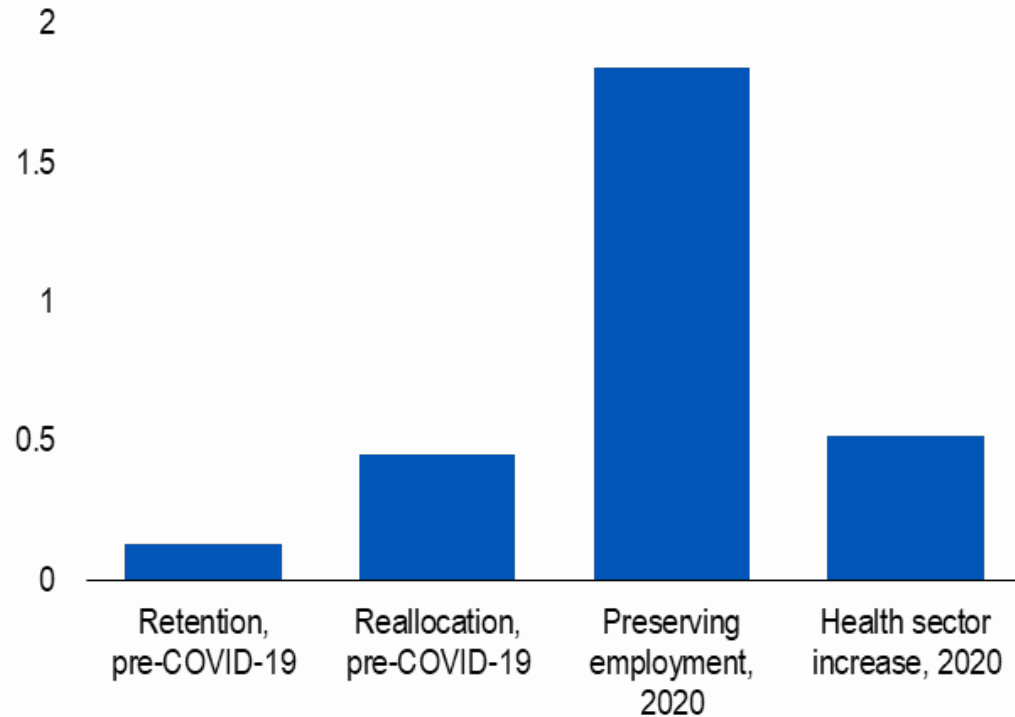
- “On the job” occupational switch incidence is smaller than after a one-year unemployment spell
- The earning penalty associated with an unemployment spell is large

Policy Responses to the COVID-19 Shock: Job Retention versus Worker Reallocation

The COVID-19 pandemic has prompted extraordinary policy support in many countries

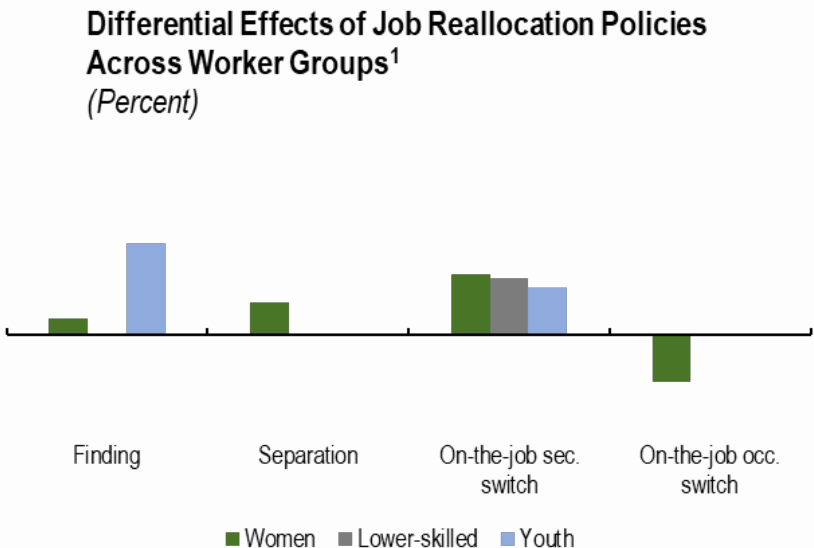
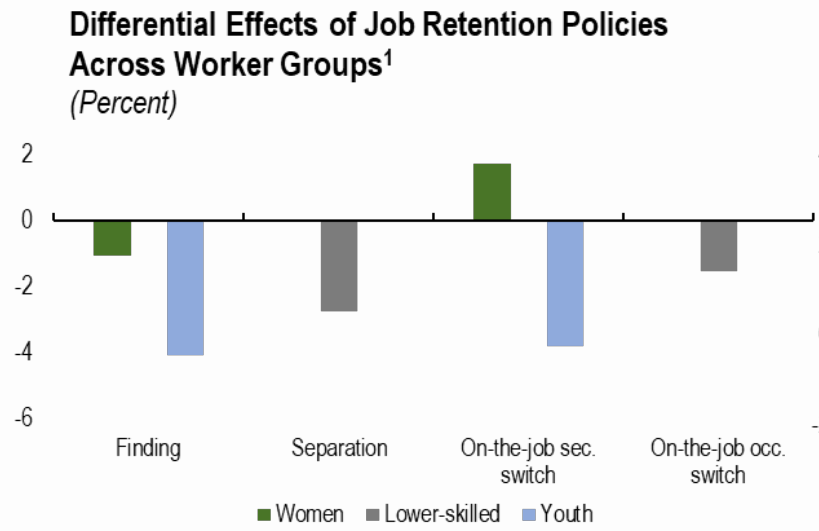
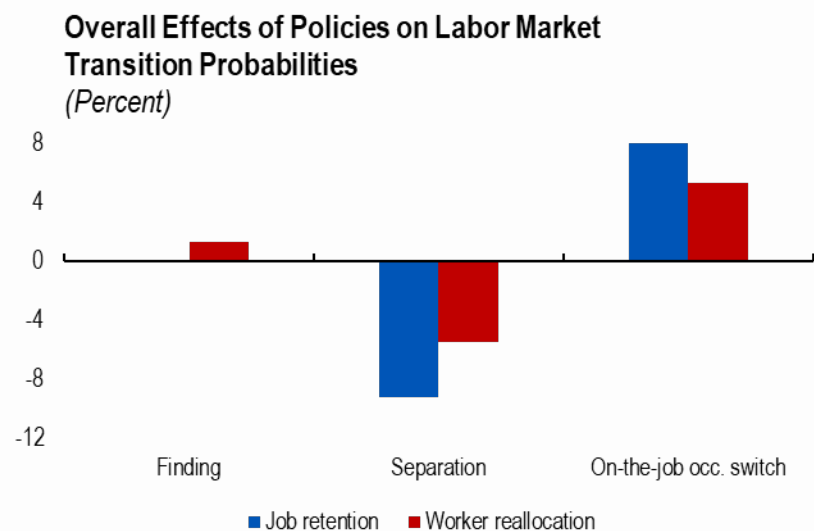
Public Spending on Retention and Reallocation Policies: Before COVID-19 and Response to COVID-19

(Percent of GDP)



- Reallocation policy: training for unemployed workers and recruitment/start-up incentives
- Retention policy: incentives for job maintenance and partial unemployment benefits
- To empirically study the impact of these policies with augment the previous LPM with variables capturing spending as a share of average income per unemployed

Job retention and worker reallocation policies can be powerful tools in mitigating negative labor market consequences



- Both retention policy and reallocation policies:
 - Mitigate the job separation likelihood
 - Boost on-the-job occupational switch chances
- Only reallocation policy boosts the job finding probability
- Differential policy impact across different demographic groups:
 - *Job retention*: reduces separation likelihood particularly for low-skilled workers
 - *Worker reallocation*: raises job finding likelihood particularly for young and women

Nature of the shock may influence the effectiveness of policies

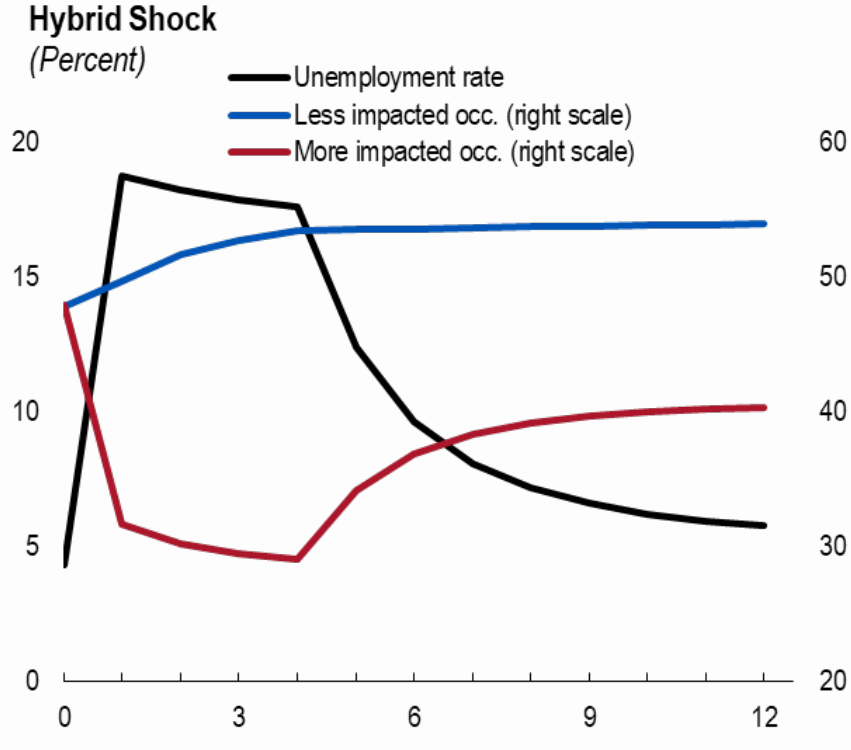
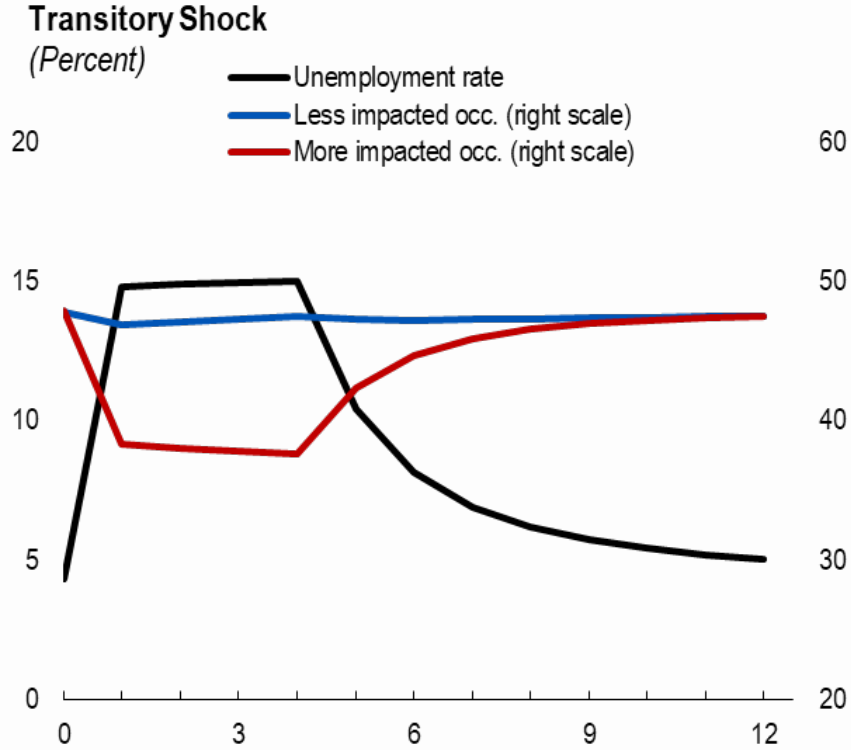
- COVID-19 pandemic shock and downturn unusual in extent and uncertain in persistence
- Use newly developed **model-based analysis** informed by empirical estimates to examine how shock and policies interact to affect labor market functioning and worker reallocation
 - ▶ Heterogenous workers and jobs, with labor market search and matching
 - ◆ Productivities differ across occupations and workers
 - ◆ Firms enter and exit freely, hiring workers into 2 occupation types
 - ◆ Lockdown shock that impacts occupations asymmetrically
 - Transitory (17.5% in less-impacted and 35% in more-impacted lasting 4 quarters)
 - Hybrid (same as transitory but half of shock to more-impacted is permanent)
 - ◆ Policies considered are same as empirical analysis

Simulation Structure

- Two Shocks Scenarios:
 1. Hybrid and 2. Transitory
- Four policy scenarios:
 1. no policy intervention
 2. reallocation policy
 3. retention policy
 4. package (retention policy followed by reallocation policy)
- All policies financed using government debt.
- Unemployment insurance operating in the background.
- Outcomes:
 1. unemployment rate
 2. occupational shares
 3. fiscal costs
 4. income inequality

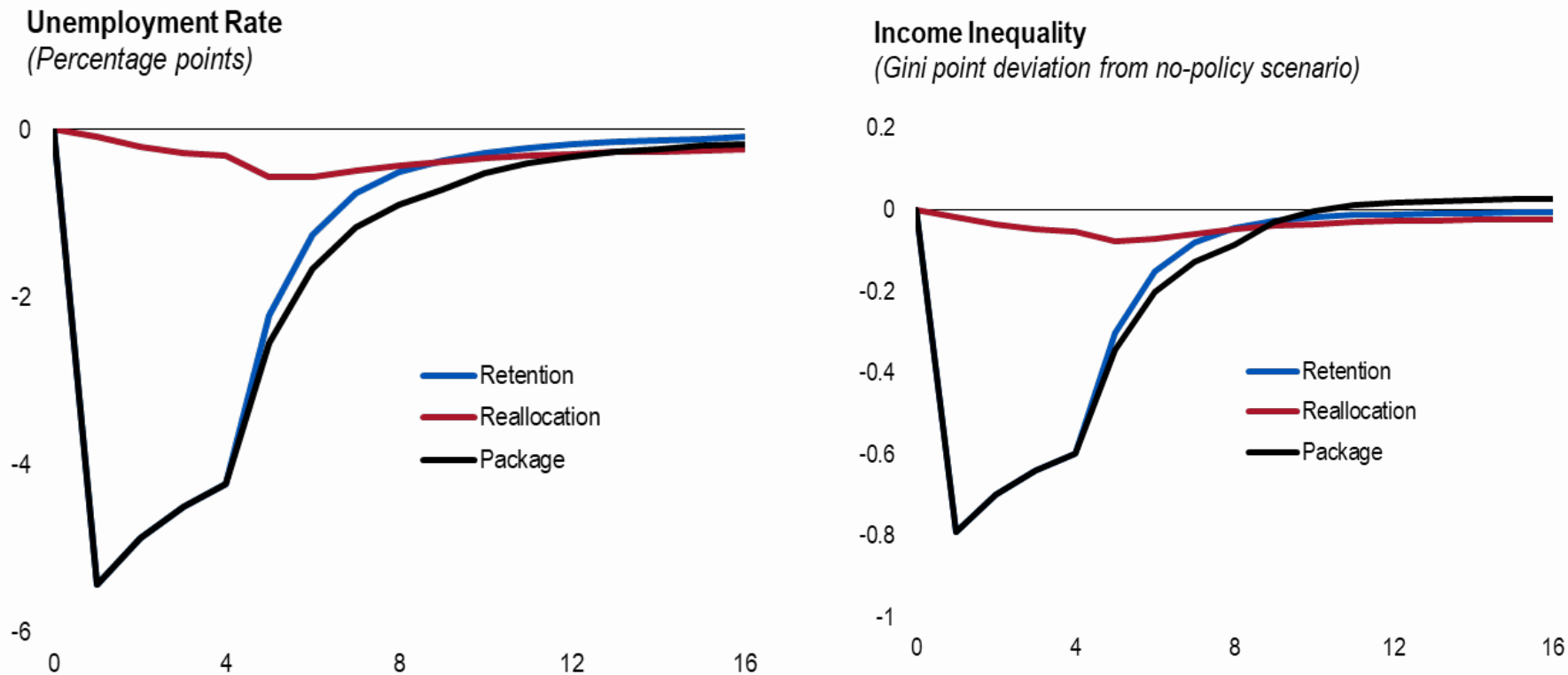
The impact on unemployment is larger for the same size underlying shock when part is permanent

Unemployment Rate and Distribution of Workers by Occupation
(No-policy scenario)



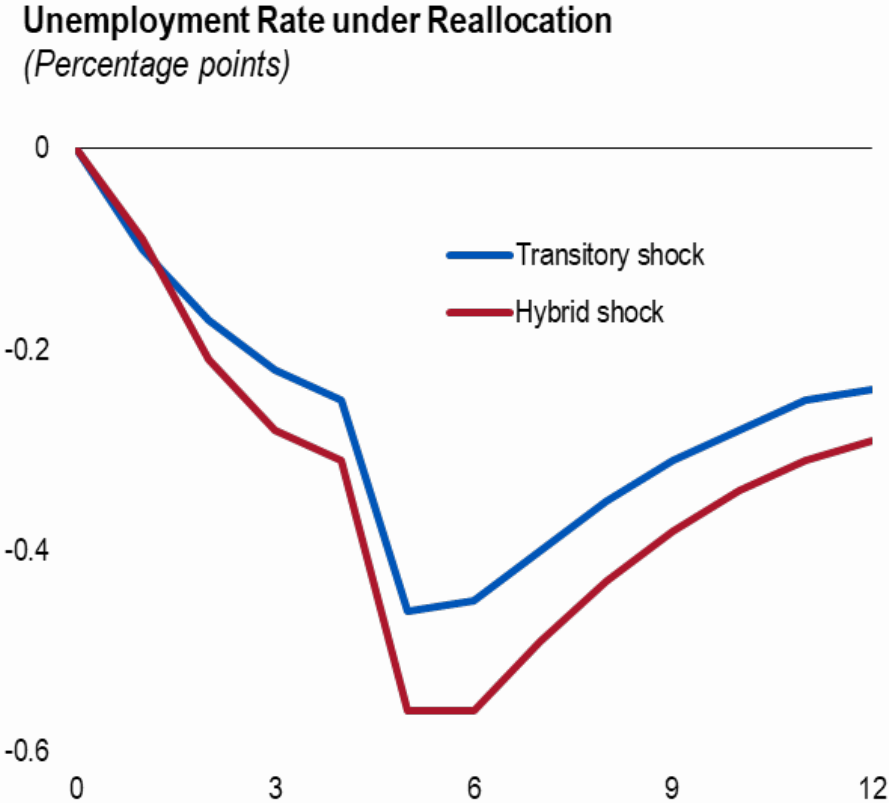
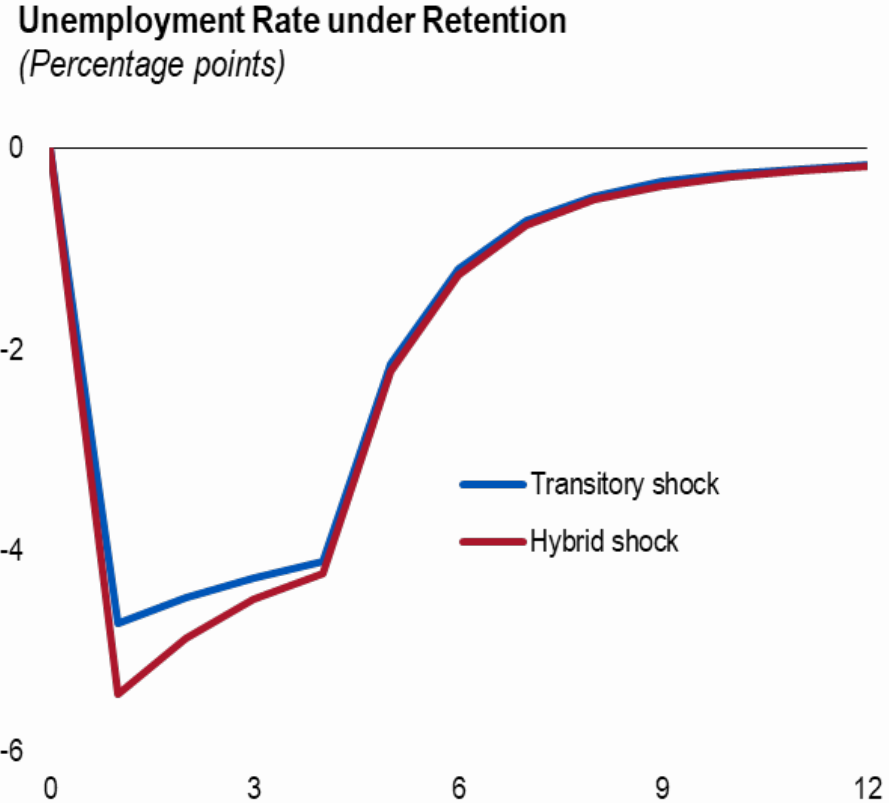
Retention policies preserve matching and are cheaper in the short-run while reducing inequality

Effect and Cost of Labor Market Policies during Different Shocks
(Deviation from no-policy scenario)



Reallocation policies are more powerful under a permanent shock

Effect and Cost of Labor Market Policies during Different Shocks
(Deviation from no-policy scenario)



Policy implications

- Countries with fiscal space should maintain support for job retention, helping to avoid socially costly unemployment spells and to dampen the effects on more disadvantaged worker groups
 - Retention policies could be linked to the duration and intensity of the pandemic
- Uncertainties about the pandemic and its path mean that the phaseout of such measures is more complicated in practice:
 - Monitoring of the pandemic (including rollout of vaccines)
 - Judgment of the economy's ability to weather a reduction in support
- Policies could also be designed to target more affected worker groups to discourage firms from letting these workers go:
 - For example, increasing wage subsidies for youth or lower-skilled workers
- As a recovery gets under way, a more vigorous deployment of worker reallocation support can hasten labor market adjustment
- However, it is important to be realistic about how quickly progress in reallocation can be achieved given skill mismatches



World Economic Outlook April 2021

THANK YOU!