2 Job retention schemes during the COVID-19 crisis: Promoting job retention while supporting job creation

Job retention schemes have been the main instrument used in most OECD countries for stemming the labour market impact of the COVID-19 crisis. This chapter provides a preliminary assessment of their impact during the crisis. It offers four key contributions: i) an institutional analysis of the main features of job retention schemes; ii) a statistical portrait of their use and determinants; iii) a discussion of their possible effects on job retention and job creation during the COVID-19 crisis based on the available preliminary evidence; iv) a comprehensive discussion of the policy challenge of promoting job retention while supporting transitions to jobs in firms and sectors with better growth prospects. The main message is that well-designed job retention schemes can be an effective policy tool to help the labour market weather an economic downturn: they need to be timely, targeted and temporary to support workers and firms effectively while minimising unintended negative effects on job creation and growth.

In Brief

This chapter provides a preliminary assessment of the role of job retention (JR) schemes during the COVID-19 crisis. It offers insights about their design, use and effects, and proposes a number of recommendations to make these schemes more effective in protecting jobs and reducing the risk of them undermining job creation in the recovery.

Almost all OECD countries operated job retention schemes during the COVID-19 crisis, but with important differences in their design and implementation:

- Traditionally, short-time work schemes that directly subsidise hours not worked (e.g. the German *Kurzarbeit* programme) represented the main instrument to promote job retention during economic downturns. Countries that already had such measures in place typically took steps to facilitate access, expand coverage and increase the generosity of these schemes during the crisis.

- Countries without pre-existing schemes introduced new ones that tended to take the form of furlough schemes, which restrict support to jobs that are temporarily suspended (e.g. the UK Coronavirus Job Retention Scheme), or wage subsidy schemes, which subsidise hours worked, but can also be used to top up the earnings of workers on reduced hours (e.g. the Australian Job Keeper Payment).

- Generous support allowed firms to reduce working time in line with the decline in business activity at limited or no costs, significantly reducing the number of jobs at risk of termination due to liquidity constraints.

- Support was increasingly made available to workers in non-standard forms of work, particularly those on temporary contracts, but in some cases also temporary agency workers and certain types of self-employed workers.

After reaching an unprecedented peak, the use of job retention schemes receded quickly as restrictions were withdrawn partially and economic activity could resume:

- On average across the OECD, the use of JR support peaked in April 2020 at the unprecedented level of around 20% of employment, supporting approximately 60 million jobs, more than ten times as many as during the global financial crisis. In contrast with what occurred during the global financial crisis, take-up rates were high both in countries with pre-existing schemes and those that introduced new ones.

- Average take-up declined quickly to 7% by September 2020 with the reopening of the economy, and remained above 6% until the first months of 2021, increasing again in some countries as they saw a resurgence of the virus, while receding in others.

- The use of JR support closely followed variations in government restrictions and economic activity, while there was no apparent link with other policies, such as employment protection legislation that played a significant role during the global financial crisis. Importantly, the strong decline in take-up in response to improved economic conditions suggests that the unprecedented levels of use are unlikely to persist once the economic recovery takes hold. However, take-up is likely to become more persistent as time goes by since firms with structural problems are more likely to continue relying on JR support, while other firms resume their activity.

- The use of JR schemes was particularly large in sectors most affected by government restrictions such as hotels and restaurants, arts and entertainment as well as wholesale and retail. As a result, the incidence of JR support was relatively high among young workers who represent a disproportionate share of the workforce in those sectors.

Job retention schemes helped to limit losses in employment and are unlikely to have had a significant adverse impact on job creation so far:

- Preliminary evidence on the effectiveness of JR schemes during the first six months of the COVID-19 crisis suggests that they played an important role in limiting job losses and averting a surge in unemployment. There is, however, considerable uncertainty over the magnitude of the impact. If the reduction in hours had fully translated into reductions in employment in the absence of JR schemes, the fall in the number of employees might have been as large as 11% instead of the decline of 4% observed in the second quarter of 2020. The actual effect might have been smaller because some firms might have been able to retain some workers even without the help of JR schemes, in part due to complementary measures taken by governments to provide liquidity to firms.

- At the same time, there is limited evidence that JR support so far has hampered job creation by locking workers into firms with structural difficulties. Support overwhelmingly went to firms in sectors affected by government-mandated restrictions and thus experiencing temporary difficulties due to the COVID-19 crisis, while job vacancies remained depressed during this period, suggesting that opportunities for job mobility were rather limited. Moreover, due to the increased number of jobseekers per vacancy, it has become easier to fill vacancies for firms, despite the adverse impact of the health situation on job search.

The evidence in the chapter suggests that JR schemes must be designed to ensure that they are both cost-effective and support job creation. They therefore need to incorporate a number of key features:

- As the crisis is not over yet, governments need to continue providing JR support to firms affected by social distancing restrictions in a timely manner. Reducing the delay in payments to a minimum is crucial for the effectiveness of JR support, but there have been significant differences across countries in the time between application and first payment. Where possible, payments should be made at least partly in advance with any required checks for eligibility carried out later.

- To prevent JR schemes from becoming an obstacle to job creation and job reallocation in the recovery, they should progressively become more targeted to jobs that are likely to remain viable in the medium term in firms or sectors were activity can resume. This might entail strengthening conditions for eligibility and increasing the employer's participation in the cost of the schemes for firms and sectors in which health recommendations and economic restrictions are withdrawn.

- Support from JR schemes can only be temporary. JR schemes are an important tool for limiting excessive layoffs in the context of a temporary reduction in business activity, but they should not become a tool for supporting firms with structural difficulties as this risks undermining the creation of good jobs and job reallocation.

Introduction

Job retention (JR) schemes seek to preserve jobs at firms experiencing a temporary decline in business activity by reducing their labour costs and supporting the incomes of workers whose hours are cut back. While there are important differences in their design and implementation across countries, a crucial aspect of all JR schemes is that employees' contracts remain in force even if their work is fully suspended (OECD, 2020[1]).

JR schemes have been the main instrument used to contain the fallout of the COVID-19 crisis on jobs in most OECD countries. Their use has been unprecedented, with take-up as a share of dependent employment in May 2020 about ten times as high as during the peak of the global financial crisis (OECD, 2020[1]). By investing in JR schemes, governments sought to protect firms and workers against the costs of government-imposed restrictions and broader social distancing measures and contain the impact of the health crisis on the economy and society at large. They did so while faced with great uncertainty about the duration and depth of an unprecedented, sudden and global crisis that threatened the lives and livelihoods of many of their citizens. The purpose of JR schemes during the COVID-19 crisis was therefore considerably broader than during the global financial crisis when they were used as a cost-effective tool to preserve jobs that were temporarily at risk of being destroyed (Boeri and Bruecker, 2011[2]; Cahuc and Carcillo, 2011[3]; Hijzen and Venn, 2011[4]).

The aim of this chapter is to provide a preliminary assessment of the role of JR schemes during the COVID-19 crisis. The central question that the chapter attempts to address is how governments can promote job retention on the one hand without deterring workers from moving from declining firms and sectors into ones that are expanding. As such, it touches on important questions related to the cost-effectiveness of JR schemes as well as their implications for the strength of the economic recovery. How many jobs have been saved thanks to JR schemes and how many would have been maintained even in the absence of public support? To what extent did JR schemes slow the creation of quality jobs by locking workers into firms facing structural difficulties? Answering these questions is not straightforward. The synchronised nature of the health crisis across countries and the plethora of policy responses deployed by governments to stem its economic and labour market impact severely limits the possibility of providing reliable estimates of the effects of JR schemes.

To provide a preliminary assessment of the role of JR schemes during the COVID-19 crisis, this chapter makes use of a variety of approaches. Section 2.1 offers an institutional analysis of the main features of job retention schemes based on the OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes (see Chapter 5 for a description of the questionnaire). Section 2.2 provides a statistical portrait of their use during the initial phase of the COVID-19 crisis and the factors affecting it. Section 2.3 presents tentative evidence on the effects of job retention schemes on employment and hours worked as well as their possible implications for job creation. Section 2.4 provides a comprehensive discussion of the policy challenge of promoting job retention while supporting job reallocation. Section 2.5 concludes with some remarks on how schemes might be adapted as the crisis evolves following the principles summarised by the three T's: timely, targeted and temporary.

2.1. The design of job retention schemes during the COVID-19 crisis

As the COVID-19 crisis took off, nearly all countries took steps to ensure that JR schemes provide timely and broad-based support for all firms and workers that were affected by social distancing restrictions, with limited attention to their fiscal costs or their potential implications for the recovery. Virtually all governments using JR schemes have eased access to pre-existing schemes and increased their generosity or, if no pre-existing scheme was present, introduced comprehensive temporary new ones. Mexico was the only country without a universal JR scheme.[1] In several countries, social partners were involved in the design and implementation of the JR schemes (Box 2.1). For a detailed overview of the key features of JR schemes as they operated during the initial period of the COVID-19 crisis, see Annex Table 2.A.1.

Box 2.1. The role of the social partners in the implementation and design of job retention schemes

Social partners have been involved in the design and implementation of job retention schemes in several countries.

In a number of countries, including Austria, Denmark, Korea, Norway and Sweden, JR schemes used during the COVID-19 crisis derive their main features from national-level collective agreements and declarations (The Global Deal for Decent Work and Inclusive Growth, 2020[5]). For example, in Korea, the decision to increase the Employment Retention Subsidy from 63% to 75% was taken following a tripartite declaration on the COVID-19 crisis. In Spain and Ireland, the social partners have further been instrumental in the simplification of procedural requirements and the adjustment of eligibility requirements (Eurofound, 2021[6]).

In certain other countries, social partners have been active in shaping JR schemes through the use of sectoral collective bargaining agreements. In Germany, sectoral agreements have raised replacement rates up to 90% and have enabled the use of short-time work in the public sector.[1] In Italy, a collective agreement was signed in the temporary agency work sector to allocate EUR 75 million from a bipartite fund to protect the continuity of employment and pay for temporary agency workers for the month of March 2020.

1. See for example https://www.dgb.de/themen/++co++27da3b1a-7038-11ea-85dd-52540088cada.

2.1.1. Almost all OECD countries operated job retention schemes during COVID-19, but with important differences in their design and implementation

Countries have used a variety of different approaches to job retention during the COVID-19 crisis (Table 2.1). Traditionally, short-time work (STW) schemes that directly subsidise hours not worked, such as the German *Kurzarbeit,* have been the main instrument to promote job retention during economic downturns. However, since the outbreak of COVID-19, a number of countries have introduced temporary wage subsidy (WS) schemes that subsidise hours worked but can also be used to top up the earnings of workers on reduced hours, such as the *Job Keeper Payment* in Australia. A crucial aspect of all JR schemes is that employees keep their contracts with the employer even if their work is fully suspended.

Most of the STW schemes that existed already before the crisis either do not impose any significant limits on the permissible reduction in working time or only allow for partial reductions (e.g. Sweden, the United States). One reason why schemes only allow for partial reductions is to promote work-sharing and spread the costs of adjustment across the workforce. Most new STW schemes that were introduced in response to the crisis take the form of furlough schemes that only subsidise jobs whose hours are

temporarily reduced to zero (e.g. Denmark, Slovenia, and the United Kingdom).[2] Such schemes might be easier to implement quickly and be less susceptible to abuse based on the misclassification of part-time workers. However, by restricting support only to jobs that are fully suspended, they are also necessarily more rigid and exclude the possibility of sharing the costs of adjustment across the workforce through broad-based working time reductions (OECD, 2020[1]).

A number of countries have introduced temporary WS in response to the COVID-19 crisis that can be used by firms for hours worked (like standard WS) as well as for hours not worked (like STW schemes) – e.g. Australia, Canada, Estonia, Ireland, New Zealand. WS are reserved for firms experiencing a significant decline in revenue. In some countries, the size of the actual subsidy only depends on the wage bill (before programme participation) and not the decline in business activity. Since such subsidies are not contingent on reducing working time, employers have strong incentives to request support for all eligible workers in the firm, raising potentially important questions about the way they are targeted (OECD, 2020[1]). A number of countries have therefore introduced mixed wage subsidies that do not just depend on the previous wage, but also the reduction in business activity, similar in spirit to STW schemes. For example, the Netherlands introduced a temporary WS that is proportional to the reduction in sales. Canada reformed its temporary WS scheme in July 2020 by making the subsidy partially proportional to the decline in sales.

Table 2.1. Job retention schemes have been used in almost all OECD countries, albeit in somewhat different forms

A typology of permanent and temporary job retention schemes

Type	Permanent schemes	Temporary schemes
Short-time work schemes		
– **General or unrestricted** (no significant limits on the reduction in working time)	Austria, Belgium, France, Germany, Italy, Japan, Korea, Luxembourg, Norway, Portugal, Spain, Switzerland, Turkey, the Netherlands (suspended)	Czech Republic, Lithuania
– **Furlough** (no partial reductions in working time allowed)	Finland	Denmark, Greece, Israel, Latvia, Slovenia, Turkey, the United Kingdom
– **Work-sharing** (significant limits on the maximum reduction in working time)	Denmark, Ireland, Sweden, the United States	Chile, Greece (since July), Hungary, Iceland,
Wage subsidy schemes		
– **Pure wage subsidy** (based on wage bill only)		Australia, Canada (until end June), Colombia, Estonia, Ireland, New Zealand
– **Mixed wage subsidy** (based on wage bill *and* reduction in business activity)		Canada (since July), the Netherlands, Poland, Portugal (since August), the Slovak Republic

Note: Austria: during the COVID-19 crisis, a downtime of up to 100% is possible within the short-time working period, but on average the short-time working period may not exceed 90%. The main reason for this is to exclude complete work stoppages rather than to promote work-sharing through broad-based reductions in working time. Chile: job retention support is financed out of the individual savings accounts for unemployment insurance of workers, unless there are no remaining funds. Denmark, Ireland and Portugal (from August): the pre-existing short-time work scheme was complemented with a temporary wage subsidy scheme. Greece: two schemes were introduced, the Special Purpose Compensation (furlough) in March 2020 and the Syn-Ergasia Mechanism (work-sharing) in July 2020. Netherlands: the pre-existing short-time work scheme was suspended during the crisis, while a new temporary was introduced. Turkey: the pre-existing short-time work scheme was complemented by a furlough scheme. United States: short-time compensation programmes (operational in 26 states); the Paycheck Protection Program is not considered here since it is targeted at small and medium-sized firms; temporary layoffs are not considered since the employment contract is not maintained. Mexico: did not operate a job retention scheme during the COVID-19 crisis.
Source: Country answers to OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes.

### 2.1.2. Job retention support has become more generous

Most countries provided generous JR support to firms and workers in the immediate aftermath of the COVID-19 crisis. As a result, the cost of hours not worked was largely borne by governments (61% and 68% of labour costs for average and low-wage workers respectively on average across countries).[3] However, workers often bore a significant part of the costs of reduced working hours (28% and 21% of labour costs for average and low-wage workers on average), while the costs for firms were usually smaller (7% on average) (Figure 2.1).

During the early stage of the COVID-19 crisis, a majority of countries set to zero the cost of hours not worked, allowing firms to adjust labour costs in line with the decline in business activity. This tended to hold in countries with STW schemes as well as those with WS schemes. When some business activity remained possible, WS schemes allowed for even larger reductions in labour costs than STW schemes since they subsidise hours worked as well.[4] In about half of STW countries, the cost of hours not worked was already zero, while in several others it was reduced to zero as the COVID-19 crisis struck (e.g. France, Germany, and Italy). However, in some countries, employers have continued to bear some of the cost of idle workers. The costs of hours not worked amount to around 30% in Korea and Lithuania, and 25% in Denmark and Japan. Even in the countries where employers bear some of the costs, JR schemes allowed for significant adjustments in labour costs during the crisis, alleviating liquidity constraints and limiting the number of workers at risk of dismissal. The *actual* impact of JR schemes on the number of jobs saved also depends on other factors, including the timeliness of support (Box 2.2).

Workers typically bore a substantially larger share of the cost of hours not worked than firms in terms of lower wages and social security entitlements, but still were considerably better off than workers on full-time unemployment benefits, even in the case of a complete work stoppage (see Section 2.4). Workers at the average wage absorbed 28% of the costs of hours not worked on average across countries.[5] The incomes of low-wage workers – defined here as workers earning 67% of the average wage – were usually better protected due to the role of benefit caps for workers with incomes above a certain threshold (e.g. Italy, Spain and the United Kingdom) or lump-sum subsidies (e.g. Australia, New Zealand, the United States).[6] Low-wage workers bore 21% of the costs of hours not worked on average across countries. In countries with a statutory minimum wage, this sometimes served as a floor for benefits, so that minimum-wage workers did not experience any loss in income when put on short-time work (e.g. Belgium, France, Greece).[7] In countries without a statutory minimum wage, concerns about low incomes were sometimes addressed through temporary ad hoc top-ups for low-wage workers (e.g. Switzerland). More than half of countries with a pre-existing STW scheme increased the replacement rate for hours not worked in response to the COVID-19 crisis. All in all, JR schemes played an important role in preventing financial hardship, particularly among low-income families, and supporting aggregate demand.

Figure 2.1. The cost of hours not worked for the government, firms and workers

The cost of hours not worked as a percentage of labour cost – gross wage plus employer social security contributions – for maximum permissible reduction in working time, May/June 2020

A. At the average wage level

B. At 67% of the average wage level
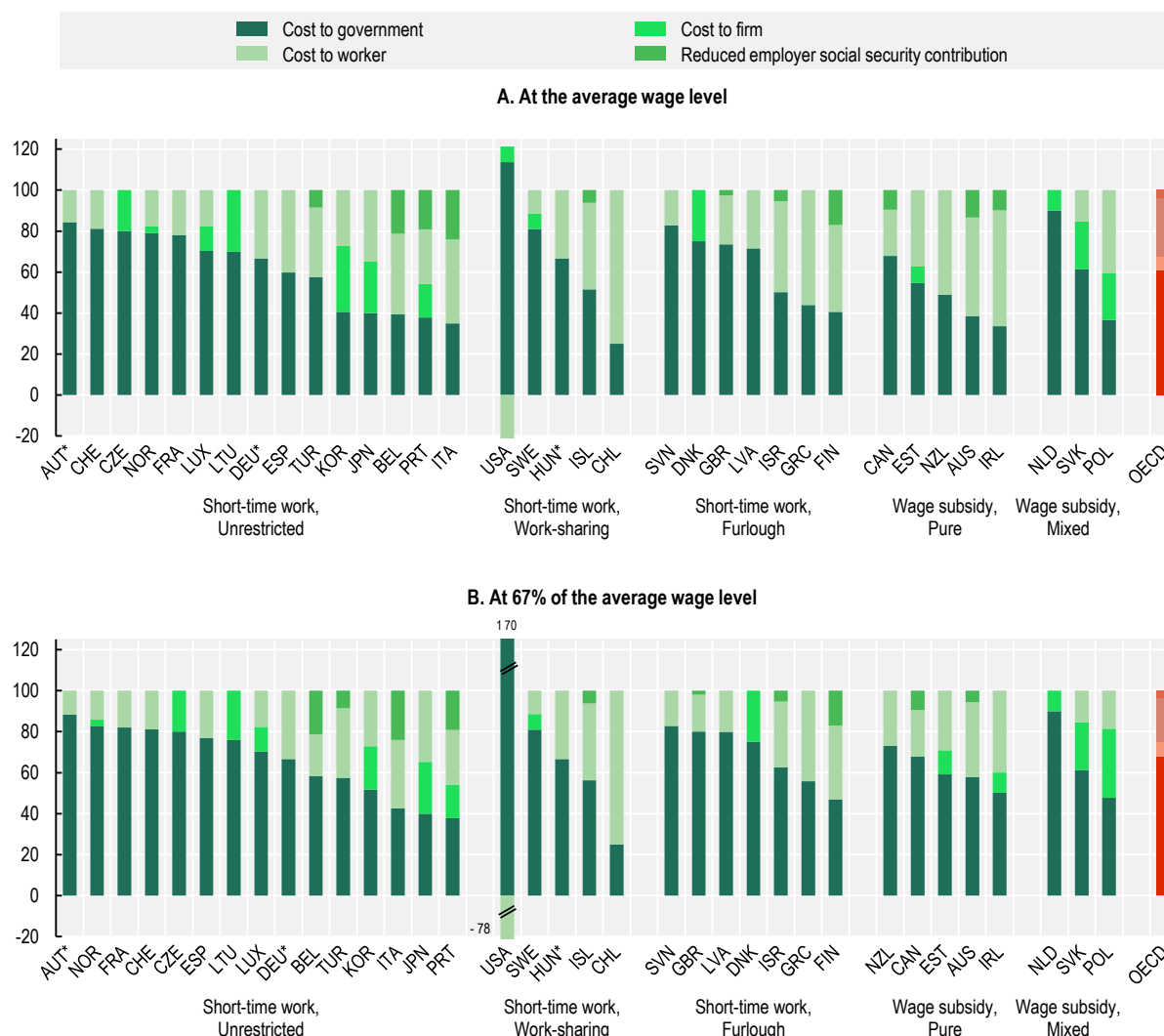
Note: * Net terms (after taxes and other transfers). Short-time work – unrestricted: no significant limits on the reduction in working time; short-time work – furlough: no partial reductions in working time allowed; short-time work – work-sharing: significant limits on the maximum reduction in working time; wage subsidy – pure: based on wage bill only; wage subsidy – mixed: based on wage bill and reduction in business activity. Mandatory employer contributions for private insurance are not taken into account (consistent with the OECD methodology of Taxing Wages). If job retention benefits are paid directly to workers it is assumed that firms pay no employer social security contributions over hours not worked. Chile: payments mainly take the form of withdrawals from individual unemployment accounts. Norway: for the first 3 months (60 days). Chile, Hungary, Sweden and the United States: for a maximum reduction of working time. United States: includes weekly lump-sum of USD 600 that was paid irrespective of the reduction in working time to all short-time compensation recipients as part of CARES, resulting in an increase in earnings in both cases considered here. If there are several schemes in the country, the figure relates to the primary scheme in May 2020 (Denmark: Wage compensation scheme (Lønkompensation); Greece: Special purpose scheme; Ireland: COVID-19 Wage Subsidy Scheme; Portugal: Layoff Simplificado; the United States: short-time compensation).
Source: Country answers to OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes.

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2.1.3. Access to job retention schemes has been eased

Most countries took measures to allow easy access to JR schemes. Applications can now be made mostly online, approval processes have been automated in many countries (Box 2.2) and eligibility requirements for either firms or workers have sometimes been eased.

To reduce the risk of supporting jobs that do not need support, i.e. "deadweight effects", countries often condition eligibility to having a valid economic justification. A formal economic test based on a quantitative threshold is required in the case of all WS schemes. STW schemes do not always require an economic justification and, if there is one, this is usually less formal (not based on a quantitative threshold).[8] Since subsidies are conditional on reducing working hours, which only makes sense when business activity is down, a formal economic justification may be less relevant in the context of STW. To promote access, a number of countries with STW, temporarily weakened the criteria for a valid economic justification or even completely removed the need for one. This reflected reduced concerns about deadweight effects during the initial lockdown when economic activity came to a virtual standstill. Requiring an agreement with a trade union or worker representative can also help to alleviate deadweight effects, while at the same time ensuring a sound process. Since participation is costly for workers, a firm-level agreement can help to prevent firms from claiming support when there are no jobs at risk. The need for a firm-level agreement is quite common in countries with STW schemes but never present in countries with WS schemes.

In addition to easing eligibility for firms, several countries have extended eligibility for workers. Eligibility may be limited to "insured" workers, i.e. workers who meet the minimum contribution requirements for unemployment benefits, or workers with a permanent contract, i.e. jobs that would be expected to last for a long time in the absence of the temporary shock. The focus of JR schemes on workers with recent work experience or permanent jobs is, in principle, consistent with the rationale of such schemes to preserve firm-specific knowledge that would be costly to rebuild if the worker is laid off. However, it also risks deepening labour duality, i.e. the gap in employment protection between those on open-ended and temporary contracts (Hijzen and Venn, 2011[4]). Newly introduced JR schemes typically do not impose such restrictions, while a number of countries with pre-existing ones have removed or relaxed minimum contribution requirements (e.g. Japan, Turkey) or extended coverage to workers on temporary contracts (e.g. Finland, France and Switzerland).[9] Almost all countries now cover workers on temporary contracts and a number of countries even cover certain categories of self-employed (e.g. Australia, Latvia, Poland), typically without minimum contribution requirements. However, formal eligibility to JR schemes for these categories does not guarantee actual access. Evidence presented in Chapter 1 indeed suggests that adjustments for workers in temporary contracts still occurred mostly through job destruction.

Box 2.2. Support needs to be provided in a timely manner to be effective

To be effective, JR support needs to be provided in a timely manner. This requires a smooth process of applications, approvals and payments.

In essentially all countries applications can be made online and in most countries the approval process is automated resulting in immediate or quasi-immediate approvals (within two working days). In some countries, the approval process takes somewhat longer but generally no more than two weeks. In the majority of countries, applications could be made retroactively, with respect to one or several months in the past, something that was not possible before the COVID-19 crisis. Retroactivity was introduced to take account of the fact that in many countries lockdown measures were implemented with limited or no notice. This allowed governments to adjust their existing job retention schemes or introduce new ones and firms to work out the implications of the lockdown measures for their activities and file an application for support.

In a few countries, payments were made largely or fully in advance of the period for which support is given (e.g. the Netherlands, New Zealand and Sweden). In countries with pure WS schemes, this was relatively straightforward since there is no uncertainty about the amount of the subsidy that is due as it does not depend on the actual decline in sales or working time. In New Zealand, wage subsidies simply took the form of a lump-sum payment per worker (COVID-19 Wage Subsidy and Extension COVID-19 Wage Subsidy). Payments were made within two working days following the approval of the application for the entire three-month support period. In the Netherlands, 80% of the subsidy was paid in advance based on the expected decline in sales and a constant wage bill (Emergency Bridging Employment Measure). If the expected decline in sales materialised and the wage bill remained constant, the remaining 20% was paid once the final balance was made up. However, if the actual decline in sales was smaller than expected or the wage bill declined (e.g. termination of temporary contracts, retirements) the final payment was smaller and firms could even be required to pay back part of the advance. Preliminary data suggest that in more than half of cases, partial paybacks were required in relation to the first subsidy period. This was good news since this meant that the need for support was less than initially anticipated. However, it also raised potentially important implementation issues related to the payback of subsidies at a time when business conditions had not fully recovered.

In the majority of countries, payments were made ex post, but with considerable variation across countries between the time of application and the first payment. In Australia, Estonia and Latvia, payments were made within days from the application, while in most other countries payments were made at a fixed day of the following month. However, in a few countries, the payment was made after two months or more, substantially limiting the potential effectiveness of the schemes for job retention.

The implications of delays in the process of applications, approvals and payments depend on whether the payment is made to firms or workers. When payments are made to firms – as in the majority of countries – delays reduce the effectiveness of JR schemes in alleviating the financial difficulties of firms and preventing job losses. When payments are made to workers, they reduce their effectiveness in alleviating financial hardship of workers and supporting consumption. This is the case in Belgium, Finland, Hungary, Norway, Spain, Turkey and the United States (short-time compensation).

Source: Country answers to the OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes.

2.1.4. In sum, JR support was easily accessible, widely available and exceptionally generous in the initial phase of the COVID-19 crisis

As a result of these measures, JR support during the early period of the COVID-19 crisis was easily accessible, widely available and exceptionally generous. These measures no doubt helped to provide timely support to all firms and workers whose economic activities had suddenly been reduced or even completely come to a halt. To an important extent, this reflects the specific nature of the crisis that was driven by government-imposed economic restrictions and social distancing measures to contain the epidemic and the need to shield firms and workers as much as possible against their economic and social consequences. However, it may also reflect the tendency of JR schemes to temporarily become more cost-effective during an economic downturn (Hijzen and Venn, 2011[4]). The efficiency cost of JR support may be reduced during a recession since many more jobs are at risk, reducing the risk of supporting jobs that do not need support, while the social cost of locking workers in unviable jobs is temporarily lower since the prospects of moving quickly to more productive jobs are weakened as a result of the decline in job vacancies. At the same time, the benefits from preventing layoffs during a recession may increase due to the longer expected duration of unemployment and the increased risk of "scarring". Importantly, both arguments suggest that the measures taken by governments to promote the use of JR schemes should be temporary and be adapted when social distancing restrictions are withdrawn and economic activity can be resume. Section 2.4 discusses how this can be done.

2.2. The use of job retention schemes during the COVID-19 crisis

Partly as a result of the measures taken by governments to promote access to JR schemes and increase their attractiveness, the use of JR schemes reached unprecedented levels following the outbreak of the COVID-19 crisis.

2.2.1. After reaching an unprecedented peak the use of job retention schemes receded quickly

The use of both new and old JR schemes was widespread during the first wave of the COVID-19 pandemic. Across the OECD, take up as a share of dependent employment peaked (mostly in April 2020) at around 20%, supporting approximately 60 million jobs, more than ten times as many as during the global financial crisis (Figure 2.2).[10] Take-up rates were lower in the few countries with STW schemes that only allow partial reductions in hours. This small group of countries includes the US which relied on the unemployment benefit system more than any other country to deal with the labour market shock of the pandemic.[11] By contrast, in countries with general STW schemes, peak take-up rates tended to be considerably higher, reaching or exceeding 30% in France, Belgium, Switzerland and Italy. All countries with WS schemes except Poland had peak take-up rates above 20%, with New Zealand reaching a stunning 66%. High take-up in countries with WS schemes could reflect strong incentives to apply for support for all workers in the firm rather than just those at risk, but also the ease with which such schemes could be accessed. During the global financial crisis, newly introduced JR schemes typically had difficulty achieving high levels of take-up (Hijzen and Venn, 2011[4]).

The use of JR support declined quickly as most countries relaxed restrictions over the summer of 2020. Average take-up fell to 7% by September 2020, just before several countries began to see a resurgence of the epidemic. The decline was particularly strong in countries with high initial take-up. For example, France, Belgium, Switzerland and Italy saw take-up plummeting from higher-than-average values of 30% to values in line with the new average of 7% in September 2020. In some countries, the decline was due to the termination of temporary schemes (e.g. Estonia, New Zealand), while in others this may also have reflected in part the gradual phase out of measures to promote take-up (e.g. France, the United Kingdom).

Take-up rates declined much less in some of the countries with WS schemes. Indeed, by September, take-up was higher in Canada, Australia, Ireland and the Netherlands than in any other country except Greece. This likely reflects that WS schemes are less targeted to firms with reduced working hours, but also the fact that these countries eased restrictions less than others during the third quarter of 2020 (Figure 2.3).

The average use of JR support remained around 6% in February/March 2021 as countries experienced diverging health developments a year after the start of the crisis. Countries that were hit by a second or even a third wave of the coronavirus such as France, Italy, and the United Kingdom saw increases in take-up – although to levels well below the peak of spring 2020. In Greece, take-up reached levels very close to the peak seen at the start of the crisis. Other countries, such as Canada and Sweden, saw continued declines in take-up.

Figure 2.2. The use of job retention schemes was very high across countries

Percentage of dependent employment (April/May 2020, September 2020, February/March 2021)
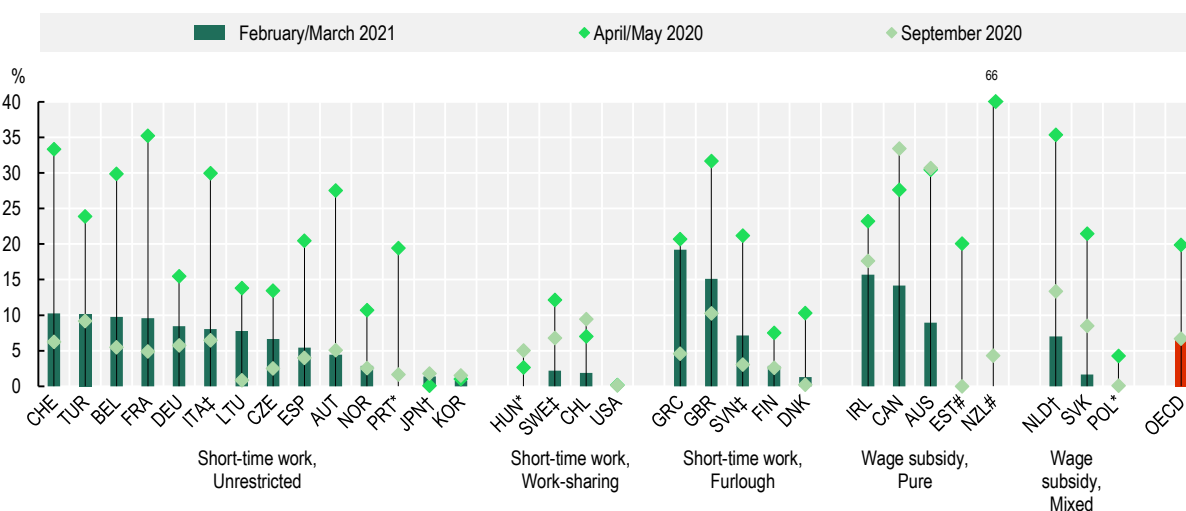
Note: Short-time work – unrestricted: no significant limits on the reduction in working time; short-time work – furlough: no partial reductions in working time allowed; short-time work – work-sharing: significant limits on the maximum reduction in working time; wage subsidy – pure: based on wage bill only; wage subsidy – mixed: based on wage bill and reduction in business activity. Take-up rates are calculated as a percentage of all dependent employees in Q1 2020. ‡ Italy, Slovenia, and the Slovak Republic: Latest data refer to December 2020.*Hungary, Poland and Portugal: Data for December unavailable. # Estonia and New Zealand: Scheme no longer operational. †Japan, the Netherlands: estimate based on the total use during the reference period and the assumption that support is provided for no more than three months during this period, the United States: Refer to short-time compensation benefits. Sorted by latest available data.
Source: National sources, see Annex Table 2.A.1 for details.

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2.2.2. Over the first wave of the pandemic, the use of JR schemes closely followed variations in government restrictions and economic activity

Differences in the use of JR support across countries largely reflect the intensity of the crisis rather than differences in their broader institutional settings. Peak take-up rates are correlated with both the stringency of the lockdown measures and the fall in GDP (Panels A and B of Figure 2.3).[12] For example, take-up was very low in countries like Korea and Japan which managed to contain the first wave of the epidemic and therefore resorted to less stringent government restrictions and experienced a smaller fall in output than most other countries. By contrast, peak take-up rates do not correlate with institutions such as employment

protection legislation (EPL) and collective bargaining systems. Indeed, during the COVID-19 crisis, even countries that traditionally relied on external flexibility, such as Australia, Canada, New Zealand and the United Kingdom, have deployed JR schemes on a massive scale. This is likely due to the nature of the crisis that in many countries suddenly forced large swaths of firms to temporarily cease their activity and stands in contrast with previous evidence that stricter EPL is associated with higher take-up of JR schemes (Boeri and Bruecker, 2011[2]; Hijzen and Martin, 2013[7]).
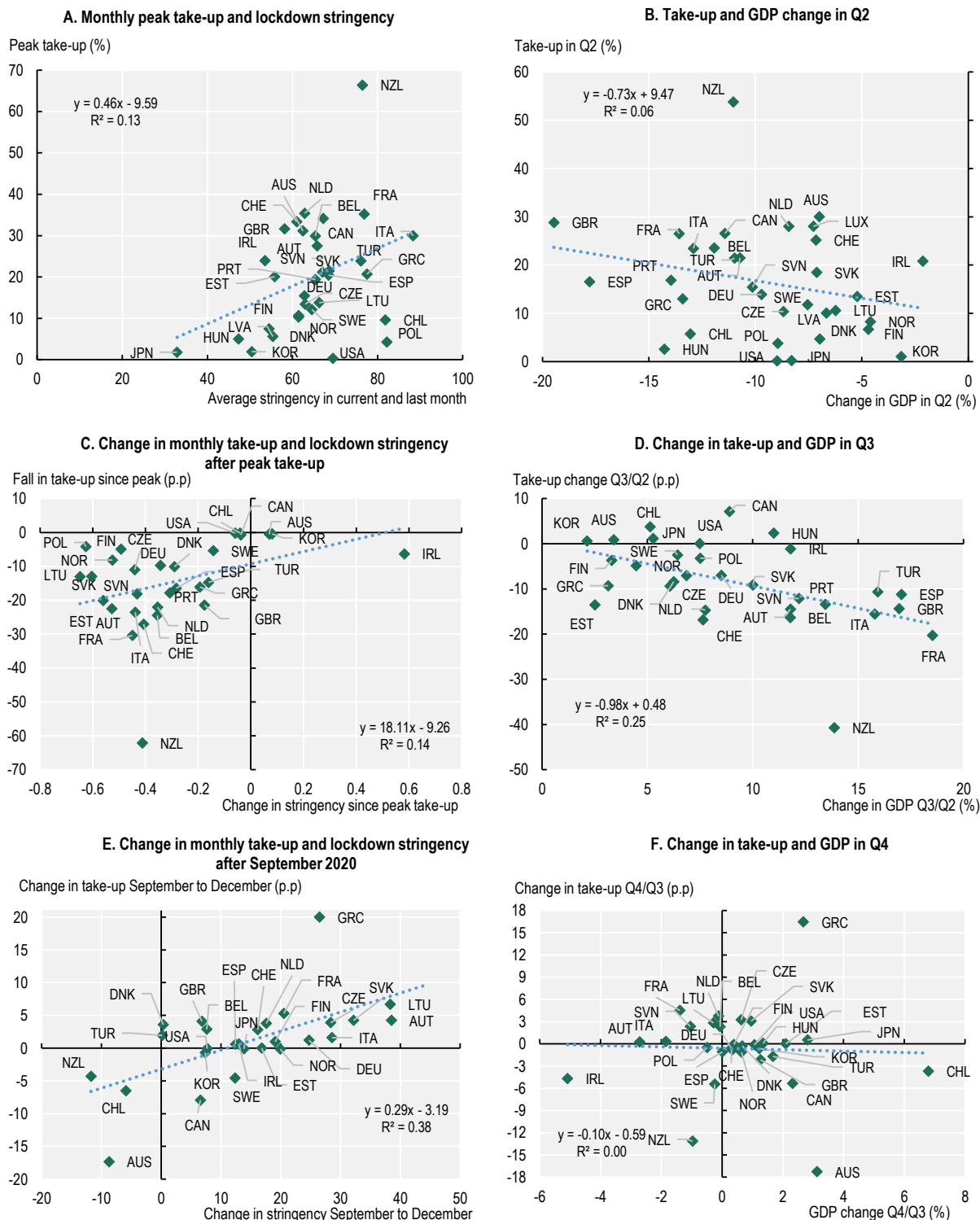
As the first wave receded in most countries, the use of JR schemes declined in line with the relaxation of the lockdown measures and the rebound in GDP in the third quarter of 2020 (Panels C and D of Figure 2.3). For example, the large declines in take-up in France, Italy, Belgium and Switzerland took place as these countries greatly relaxed the restrictions and GDP regained some of the lost ground. By contrast, Ireland, Canada and Australia made relatively smaller changes to their restrictions and saw smaller changes in take-up which, as noted above, resulted in them having higher-than-average use of JR schemes in September 2020. The strong responsiveness of take-up to enhanced economic conditions suggests that the unprecedented levels of take-up are unlikely to persist once the economic recovery takes hold. However, one would expect take-up to become more persistent as it falls to lower levels since firms with temporary difficulties will resume their activities, while firms with structural problems will continue to rely on JR support.

In the last quarter of 2020, the use of JR schemes continued to follow variations in government restrictions and economic conditions, but less closely than during the previous two quarters (Panels E and F of Figure 2.3). The weakening relationship between take-up, government restrictions and economic conditions across countries is likely to reflect a variety of factors. While many countries saw a resurgence of the epidemic in Q4 2020, the nature, scope and enforcement of the new restrictions varied considerably between countries (as well as within countries). In addition, by the end of 2020, firms and workers had learned much more about managing the risk of contagion while performing different activities and could therefore behave differently from when the pandemic first hit. Finally, the policy context evolved as countries continued to fine-tune their interventions to support firms and workers, including through adjustments to JR schemes.

2.2.3. The use of job retention schemes across sectors closely mirrors the impact of economic restrictions

The use of JR schemes was particularly important in sectors that were most affected by government restrictions (Figure 2.4, Panel A – see also Chapter 1). In hotels and restaurants, more than 50% of jobs were supported by JR schemes in Q2 2020 compared with 19% on average in the countries considered. Other sectors that were heavily affected by government restrictions include arts and entertainment as well as wholesale and retail. In sectors where telework is possible such as finance the use of JR support remained rather limited. While take-up declined strongly from Q2 2020 to Q3 2020, it declined relatively more in wholesale and retail as shops were allowed to resume activity in many countries, while it declined relatively less in manufacturing, possibly due to the role of the COVID-19 crisis for consumption and investment. The widespread use of JR schemes in services stands in sharp contrast to the experience during the global financial crisis. In France and Germany, 80% of the actual use of JR support in France and Germany was concentrated in manufacturing during the global financial crisis, compared with around 20% during the COVID-19 crisis (OECD, 2020[1]).

Figure 2.3. The use of job retention schemes reflects variations in government restrictions and economic activity

A. Monthly peak take-up and lockdown stringency

Peak take-up (%)

y = 0.46x - 9.59
R² = 0.13

Average stringency in current and last month

B. Take-up and GDP change in Q2

Take-up in Q2 (%)

y = -0.73x + 9.47
R² = 0.06

Change in GDP in Q2 (%)

C. Change in monthly take-up and lockdown stringency after peak take-up

Fall in take-up since peak (p.p)

y = 18.11x - 9.26
R² = 0.14

Change in stringency since peak take-up

D. Change in take-up and GDP in Q3

Take-up change Q3/Q2 (p.p)

y = -0.98x + 0.48
R² = 0.25

Change in GDP Q3/Q2 (%)

E. Change in monthly take-up and lockdown stringency after September 2020

Change in take-up September to December (p.p)

y = 0.29x - 3.19
R² = 0.38

Change in stringency September to December

F. Change in take-up and GDP in Q4

Change in take-up Q4/Q3 (p.p)

y = -0.10x - 0.59
R² = 0.00

GDP change Q4/Q3 (%)

Source: JR take-up: national sources; stringency index: Hale et al. (2020[8]), Oxford COVID-19 Government Response Tracker, Blavatnik School of Government; GDP: OECD National Account Database.

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Figure 2.4. The use of job retention schemes by industry and demographic group

Average across selected countries, Q2 2020 and Q3 2020, percentage of dependent employment
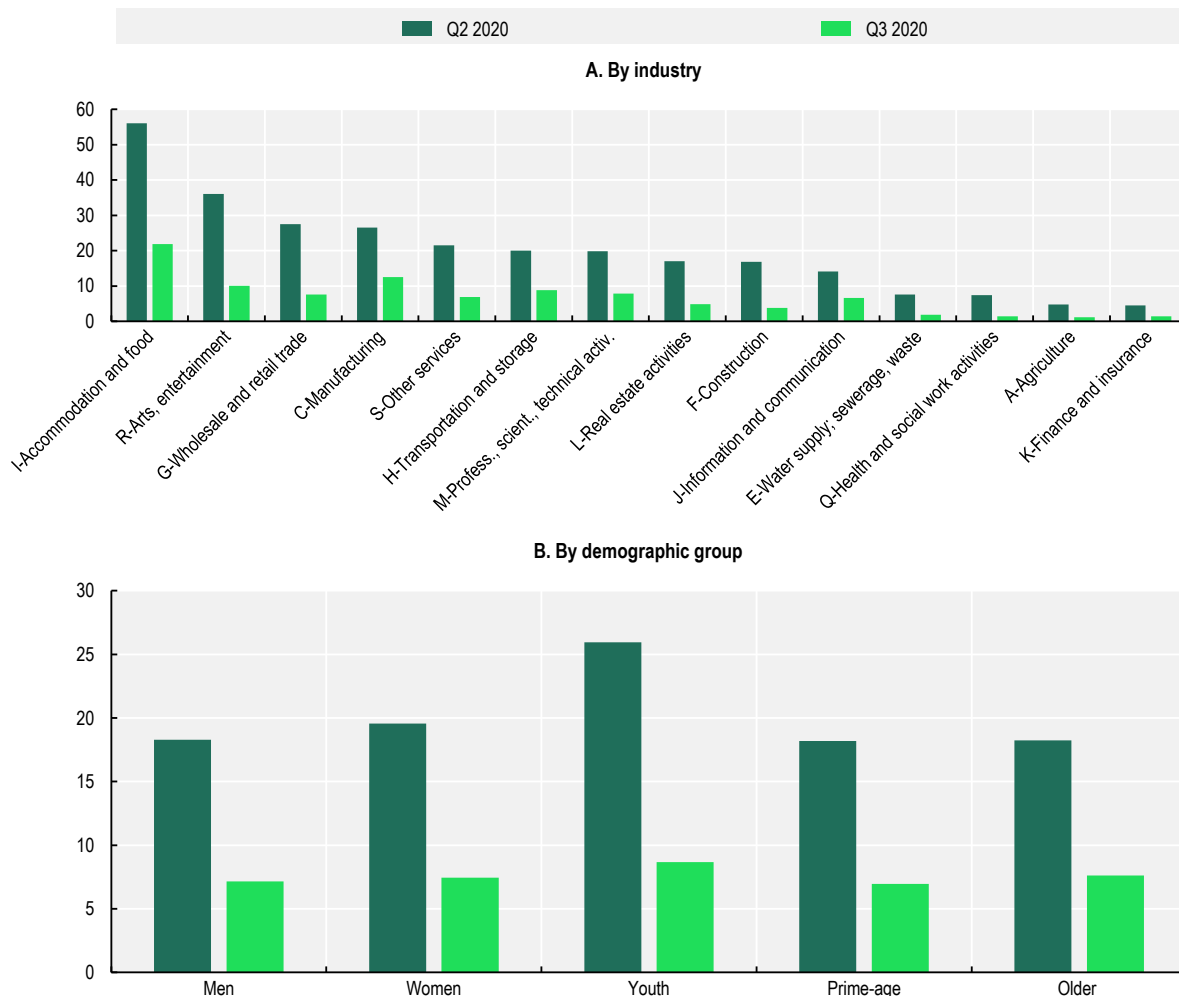
Note: Panel A: private sector only, average across seven selected countries (Austria, Belgium, Denmark, Italy, Spain, Sweden and Switzerland). The letters indicate the sector in the ISIC rev.4 classification; Panel B: average for Italy, Switzerland and the United Kingdom.
Source: National sources (see Annex Table 2.A.1 for details).

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The use of JR schemes across sectors also determines to an important extent their use across demographic groups (Panel B). Their use was considerably higher for young workers than prime-age or older workers and, in some cases, there is some evidence of significant use for workers with temporary contracts albeit at a lower level than for permanent workers (see Box 2.3). These patterns are likely to reflect the fact that a disproportionate share of young and temporary workers is employed in hotels, restaurants, retail and arts – sectors which made most intensive use of JR support.[13] The use of JR schemes was similar between men and women, but if anything slightly higher for women.[14] The patterns by industry and demographic group are strikingly consistent across the countries for which disaggregated data are available.

Box 2.3. The use of job retention schemes across different groups of workers: Insights from Switzerland

This box presents additional insights on the use of JR schemes across different groups of workers for Switzerland (Figure 2.5).

The incidence of STW is highest for persons with intermediate levels of education, followed by persons with low levels of education, while the incidence of STW is markedly lower for persons with high levels of education. The lower incidence among highly educated workers most likely reflects the higher scope of working effectively from home – see e.g. OECD (2020[9]) and Chapter 5. The somewhat lower incidence of STW among workers with low levels of education may reflect their higher propensity to work in essential professions that remained open for business during the lockdown – see also Chapter 1.

The incidence of STW is considerably higher among workers with a permanent contract than those with a temporary contract. However, even among workers with a temporary contract take-up was sizeable, amounting to over 10% in Q2 2020. This suggests that the temporary extension of eligibility for STW to temporary workers by the Swiss Government in response to COVID-19 is likely to have played an important role in mitigating the labour market impact of the crisis on this group of workers, which usually tends to be among the hardest hit during an economic downturn.

The descriptive statistics documented in this box are based on answers by workers to the Swiss Labour Force Survey, rather than on administrative data as in the main text. The difference in take-up between the two sources is considerable: 14% (4%) based on the LFS data versus 24.6% (7.8%) in the administrative data in Q2 2020 (Q3 2020). While this might in part reflect the fact that workers are not always aware that they are on STW, more likely it reflects differences in the reference period. The LFS data refer to workers who were on STW in a specific reference week in the quarter, while the administrative data count anyone who has been on STW at any point in a month and average take-up across months in the quarter.

Figure 2.5. The use of job retention schemes by education and contract type in Switzerland

Percentage of dependent employment
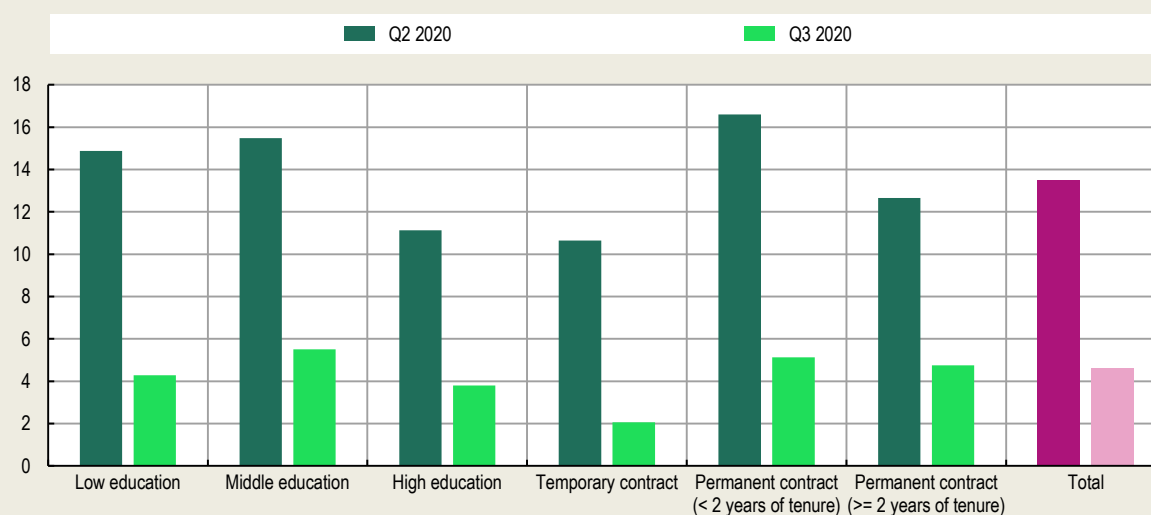
Source: OECD Calculations based on Swiss LFS.

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2.3. The effects of job retention schemes: A preliminary analysis

This section presents a preliminary discussion of the possible effects of JR schemes during the first two quarters of the COVID-19 crisis on job preservation as well as their possible adverse effects on job creation and reallocation.

### 2.3.1. Job retention schemes helped to preserve jobs

Providing an accurate estimate of the number of jobs saved by JR support requires a well-defined and credible counterfactual for what would have happened during the COVID-19 crisis in the absence of JR schemes. This is far from obvious due to the unprecedented and synchronised nature of the COVID-19 crisis that followed from the combination of legal restrictions imposed by governments and behavioural responses by workers and firms to the epidemic. Moreover, governments across the OECD responded decisively through a range of measures to contain the impact of the health crisis on the economy and the labour market by providing liquidity to firms, via JR schemes but also tax deferrals, direct income-support to workers and households and many other measures (Chapter 1). These factors greatly complicate the task of defining a meaningful counterfactual based on either previous crisis episodes or by making comparisons across countries that differed in their use of JR support and not much else.

Bearing these limitations in mind, this sub-section presents some tentative insights on the plausible range of the effect of JR support on jobs saved.[15] The estimates are based on two simple pair-wise correlations which relate the change in JR use during the COVID-19 crisis to respectively the change in hours worked per employee and the change in the number of employees. The correlation between the change in average hours worked and the use of JR support provides an indication of the number of jobs saved under the assumption that firms only used the scheme to support jobs that they would have otherwise terminated (i.e. no efficiency losses). The correlation between JR support and the change in the number of employees provides an indication of the number of jobs saved under the assumption that employment growth is not affected by any other factors that also correlate with JR take-up (i.e. other policy interventions, pre-existing policies and institutions, the size and nature of the shock). While the latter set-up in principle allows for efficiency losses, it is also clear that there are important confounding factors that are not easily taken into account. To the extent that larger shocks cause both an increase in the use of JR support and a decline in employment, the implied jobs effect is most likely underestimated and should be interpreted with due caution.[16]

The correlations of JR support on the one hand and average hours worked and employment on the other, point to a broad range of plausible estimates of the jobs impact of JR schemes during the COVID-19 crisis (Figure 2.6).[17] As expected, the use of JR schemes is associated with a strong reduction in hours worked per employee across countries (Panel A). The fitted line suggests that a 10% increase in the use of JR support is associated with a reduction in hours worked per employee of about 4% (on average between Q2 and Q3), equivalent to an average reduction in working time for those on JR support by 40%.[18] As discussed above, under the assumption of no efficiency losses, this also implies a jobs impact of 4%, which could therefore be considered an upper bound to the true effect on jobs. The correlation between the use of JR support and employment is weaker: a 10% increase in the use of JR support is associated with a 1.2% higher level of employment (Panel B). Taken at face value, a relatively small effect of JR schemes on jobs may reflect the ability of firms to retain workers independently of JR support, due to complementary measures taken by governments to provide liquidity to firms. However, as mentioned above, there are good reasons to believe this is an underestimate of the true jobs impact.[19]

Figure 2.6. The use of job retention schemes, average hours worked and employment

Pairwise correlations between the use of JR schemes and average hours worked (Panel A) and log employees (Panel B), Q2 2020 and Q3 2020

A. Hours worked per employee

B. Number of employees
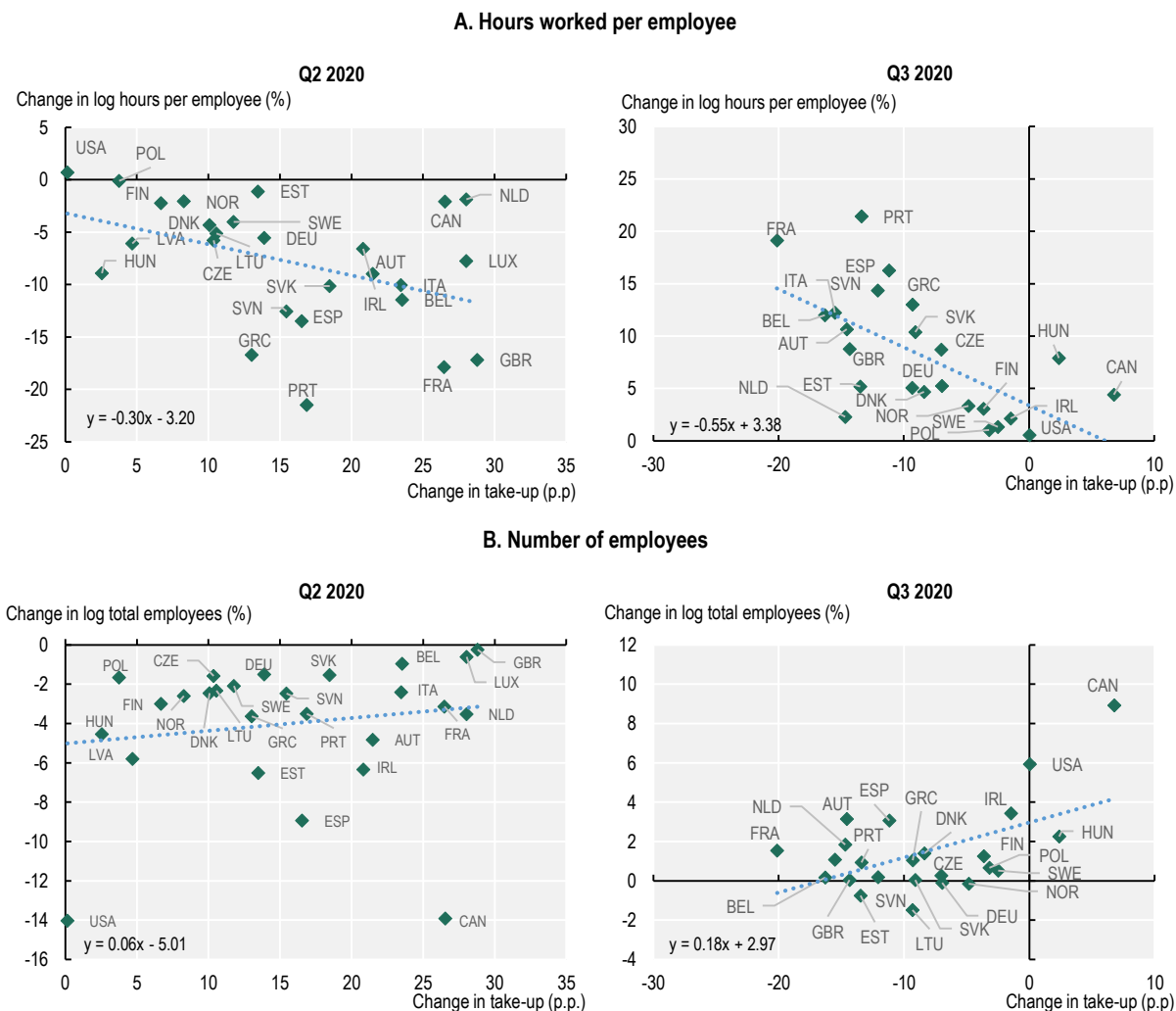
Note: Data refer to quarter-on-quarter changes. Seasonally adjusted hours and employees data.
Source: JR take-up: national sources (see Annex Table 2.A.1 for details). Hours and employees: OECD Quarterly National Accounts database.

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The implications of these different jobs estimates of the use of JR schemes for the evolution of employment during the COVID-19 crisis are visualised in Figure 2.7. It compares the actual change in the total number of employees with the implied counterfactual changes that would have occurred in the absence of JR support. The counterfactual changes have been obtained by adjusting the actual change in employment for the estimated effect of JR use on hours and employment. Across the OECD, the number of employees fell sharply by about 4% between Q1 2020 and Q2 2020, and then started to recover gradually. The adjusted employment series based on the correlation between the change in JR support and the change in average hours worked indicates that in the absence of JR support – not allowing for possible efficiency losses – the fall in the number of employees in Q2 2020 might have been as large as 11%. The adjusted employment series based on the correlation of the change in JR support and the change in the number of

employees across countries suggests that, in the absence of JR schemes, the decline in the number of employees would have been almost 50% larger than the actual change in employment, resulting in a decline in employment of more than 6%. The large differences in the evolution of employment after adjusting for the estimated associations of JR schemes with average hours worked and employment clearly highlight the high degree of uncertainty that surrounds these estimates. A better understanding of the role of JR schemes during the COVID-19 crisis may be obtained as time passes and more detailed data become available.

Figure 2.7. Job retention schemes have helped to contain the decline in employment, but there is considerable uncertainty by how much

Percentage change in the number of employees with and without JR support from Q1 2020 to Q3 2020
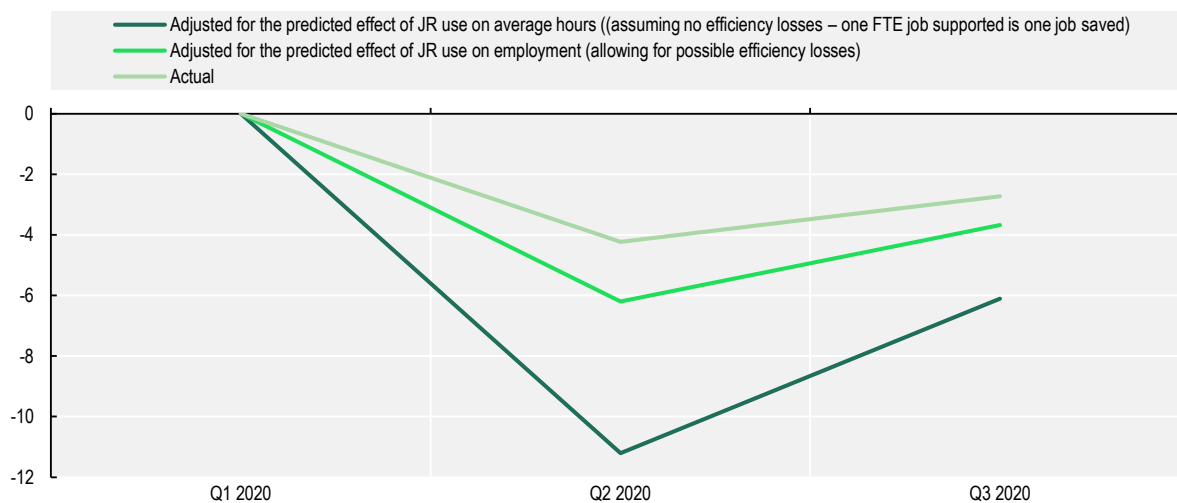
Note:
Adjusted for the predicted effect of JR use on average hours = Actual employment – the average slope coefficient in the scatter plots relating average hours worked to the use of JR schemes * the actual use of JR schemes.
Adjusted for the predicted effect of JR use on employment = Actual employment – the average slope coefficient in the scatter plots relating employment to the use of JR schemes * the actual use of JR schemes.
Seasonally adjusted hours and employees data.
Source: OECD calculations based the use of JR support: national sources. Hours and employees: OECD Quarterly National Accounts database.

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Given the difficulty of coming up with a well-defined and credible counterfactual of what would have happened in the absence of JR schemes using country level data, there have been only few attempts to quantify their effects so far and those that have done so rely on detailed microdata. An early evaluation of the Australian *JobKeeper Payment* finds that it saved the job of one in five employees who received the payment or about 700 000 jobs over the period April to July 2020 (Bishop and Day, 2020[10]). Given the modest size of the lump-sum subsidy, this effect seems large, suggesting that the *JobKeeper Payment* was an effective instrument to preserve jobs. Evidence for the *Paycheck Protection Program* in the United States remains inconclusive, with some studies finding very small and others finding very large employment effects (see Box 2.4).

Box 2.4. The *Paycheck Protection Program* in the United States

As part of the initial policy response to the COVID-19 crisis, the United States introduced the *Paycheck Protection Program* (PPP) which provides small and medium-sized businesses with less than 500 employees forgivable, low-interest loans to pay their employees even if they do not work. Eligibility did not depend on the financial situation of the firm. The loan was converted into a subsidy if employment and compensation levels were maintained. The programme was administered by private banks. The programme was extremely large, disbursing more than USD 500 billion between April and June 2020 equivalent to about 2.5% of GDP.

Jobs estimates are mixed

A few academic studies have evaluated the initial effects of PPP (Autor et al., 2020[11]; Chetty et al., 2020[12]; Bartik et al., 2020[13]; Hubbard and Strain, 2020[14]) comparing employment changes between eligible firms with just under 500 employees and ineligible firms with just over 500 employees. These studies tend to find rather small employment effects. For example, Autor et al. (2020[11]) find that PPP increased employment by about 3% or 2 million jobs over the period from April to June 2020. This amounts to about 250K USD per job saved (based on a combination of loans and subsidies). Other studies argue that comparisons around the eligibility threshold of 500 employees are not informative of the likely larger effect on smaller and more vulnerable firms (Faulkender, Jackman and Miran, 2021[15]; Doniger and Kay, 2021[16]). Exploiting time variation in the receipt of PPP loans, these studies find much larger employment impacts of the programme and argue that it could have achieved even better results had it been targeted more effectively to smaller firms.

Targeting was initially weak

Some features of the initial design of the PPP might have limited its ability to target firms with jobs at risk (Granja et al., 2020[17]; Doniger and Kay, 2021[16]). First, since the programme was administered by private banks, it had a tendency to favour firms with better connections. As a result, smaller firms were less likely to be aware of the programme, experienced longer processing times and were less likely get their applications approved. Second, the initial version of the programme did not consider the need for financial support beyond being small as a condition for receiving a loan. Consequently, a considerable number of firms received support which did not need it and these firms were more likely to have their loans forgiven since they could more easily maintain employment and compensation levels. Third, loans were often used to make non-payroll payments and build up savings buffers. While this reduced the impact of PPP on employment, it has rendered it more effective in preventing bankruptcies.

Targeting has been enhanced in the revised programme

In January 2021, an additional USD 300 billion were assigned to PPP as part of the second COVID-19 relief package. The programme was more narrowly focused on businesses which have been hit hard. While qualifying circumstances remain unchanged for first-time applicants, firms which have already received funds from the programme will be eligible for a second loan only if they have 300 employees or fewer and can prove significant revenue losses. Moreover, the maximum loan will be limited to USD 2 million, down from USD 10 million in the original round of funding.

2.3.2. It is unlikely that the widespread use of JR schemes had a significant adverse impact on job creation and reallocation so far
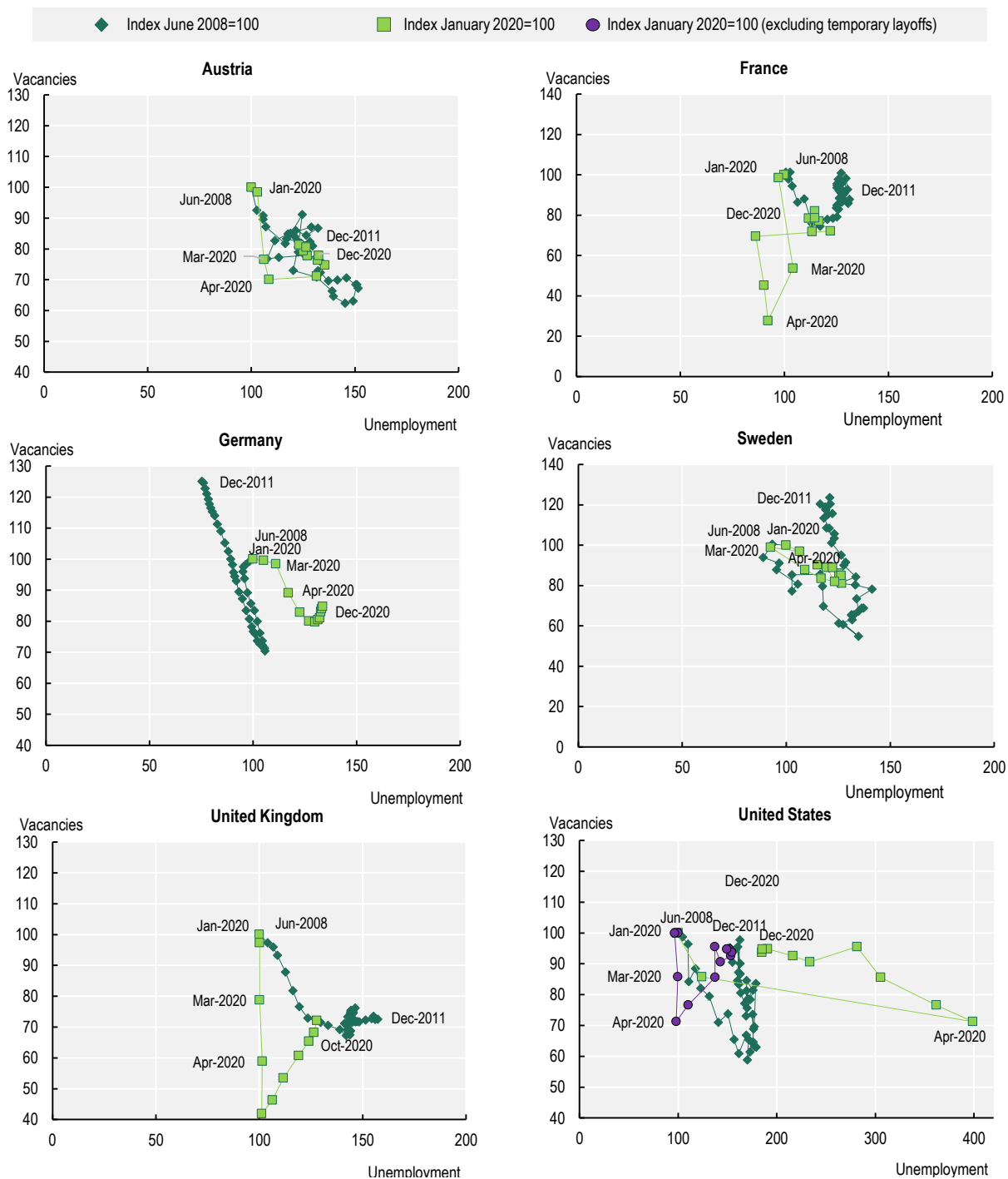
The main concern with the widespread use of JR schemes is that, when used for too long, there is a risk that they undermine job creation in the recovery and slow down the reallocation of jobs from low to high performing firms.[20] For these concerns to have materialised so far, three conditions need to be met. First, JR schemes must have supported unviable jobs in firms with structural difficulties (low productivity firms). Second, in the absence of JR support, these workers would have been laid off and would swiftly have found a job in another firm. Third, it must have become more difficult for firms to fill their job vacancies as a result of the use of JR schemes. Each of these issues will be reviewed in turn below, based on the available data and preliminary evidence for the first year of the COVID-19 crisis.

JR schemes may end up supporting unviable jobs in firms with structural difficulties for two main reasons. First, the JR schemes may support firms with *pre-existing* structural difficulties. This is likely to be small relative to the number of jobs supported by JR schemes. As documented above, the use of JR support has been widespread across sectors and was closely related to presence of economic restrictions since the start of COVID-19 crisis. While a number of countries that relied heavily on JR schemes exhibited lower layoffs than in normal times, suggesting that JR schemes and other firm-support measures have tended to preserve some jobs that in the absence of the crisis would have been terminated, the number of these "missing layoffs" so far is likely to have been rather small.[21,22] Second, JR schemes may have supported jobs that had become permanently unviable as a result of the COVID-19 shock itself: it did not just represent a temporary shock but also a permanent one, requiring the reallocation of jobs across firms and sectors.[23] While it is too early to say to what extent the COVID-19 crisis is likely to induce permanent changes, it is likely to accelerate a number of important pre-crisis trends related to the spread of online activities, the incidence of working from home and the automation of production (see Chapter 1).

Even in the event that JR schemes were supporting many permanently unviable jobs, this does not necessarily mean that they were also slowing job creation and reallocation. If there is weak effective demand for workers in permanently unviable jobs, letting them go would merely increase unemployment, without any effect on job creation and reallocation. This is more likely when job vacancies are relatively low and the number of unemployed persons competing for these job vacancies is relatively high. This is visualised in Figure 2.8 using Beveridge Curves which trace out combinations of job vacancies and unemployed job seekers during the COVID-19 crisis (from 2020M1 to 2020M12) and, to put this in perspective, also during the global financial crisis (from 2008M6 to 2011M12).[24] It shows that as a result of the COVID-19 crisis, the ratio of vacancies to the number of unemployed initially sharply declined as job vacancies plummeted and the number of unemployment jobseekers tended to increase. As time passed, job vacancies started to recover while unemployment continued to edge up, resulting in an outward movement of the Beveridge Curve. With the exception of the United States, however, job vacancies remained well below their pre-crisis levels until the end of 2020. At least in part, this is likely to reflect weak labour demand related to the high degree of uncertainty about the short-term outlook. The continued weakness of labour demand mitigates concerns about the possible adverse effects of JR schemes on job creation and reallocation. Indeed, the resulting increase in the expected duration of unemployment and the competition for jobs among the unemployed provides a justification for temporarily increasing the generosity of JR support (and unemployment benefits) in the context of an economic downturn (Landais, Michaillat and Saez, 2018[18]; Hijzen and Venn, 2011[4]).[25]

Figure 2.8. In countries that have relied heavily on job retention schemes job vacancies remain depressed

Index of job vacancies and unemployment set to 100 at start of crisis, selected OECD countries

◆ Index June 2008=100   ■ Index January 2020=100   ● Index January 2020=100 (excluding temporary layoffs)

Source: OECD Short-term labour force statistics database.

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A further question is whether supporting jobs in firms with structural difficulties has undermined job creation by making it more difficult for firms to fill their vacancies. To shed some light on this question, so-called "matching functions" are estimated, which describe the ease with which job openings can be filled (or unemployed job seekers can find jobs) for a given level of labour market tightness (Petrongolo and Pissarides, 2001[19]; Federal Reserve Bank of San Francisco et al., 2011[20]). Figure 2.9 documents the actual evolution of the job-filling rate, the ratio of hires over vacancies, as well as its expected evolution based on actual changes in labour market tightness (see Box 2.5 for details). The figure provides two insights. First, actual job-filling rates have tended to increase since the start of the COVID-19 crisis. This is the typical pattern observed during economic downturns as more workers are competing for fewer job vacancies. Importantly, the increase in the job-filling rate suggests that it has not become more difficult to fill job vacancies. Second, the job-filling rate tended to increase less than what might have been expected based on its relationship with labour market tightness in the period before the COVID-19 crisis. While this may point to a decline in matching efficiency, it is unlikely to be related to the unprecedented use of JR schemes. Indeed, there is no clear indication in the data that the use of JR schemes played a significant role in explaining the-smaller-than-expected increase in the job filling rate (Figure 2.10).

The limited increase in the job-filling rate might, instead, be due to the nature of the crisis itself. The asymmetric impact of the crisis across sectors with different skill requirements might have produced a mismatch between skills of unemployed jobseekers and those required by employers, as observed during previous recessions (Şahin et al., 2014[21]). Indeed, one of the objectives of JR schemes is to prevent the build-up of such skill mismatches. Moreover, unemployed workers might have limited their search efforts due to concerns linked to the severity of the health and economic situation – see Chapter 1. For example, evidence for Sweden shows that job-search declined more sharply than vacancies in the period immediately after the COVID-19 outbreak, making it harder to fill jobs despite a larger number of unemployed per vacancy (Hensvik, Le Barbanchon and Rathelot, 2021[22]).

Figure 2.9. Actual job-filling rates during COVID-19 fell short of their predictions based on historical data

Actual and predicted job-filling rates, selected countries, Q1 2015- Q3 2020
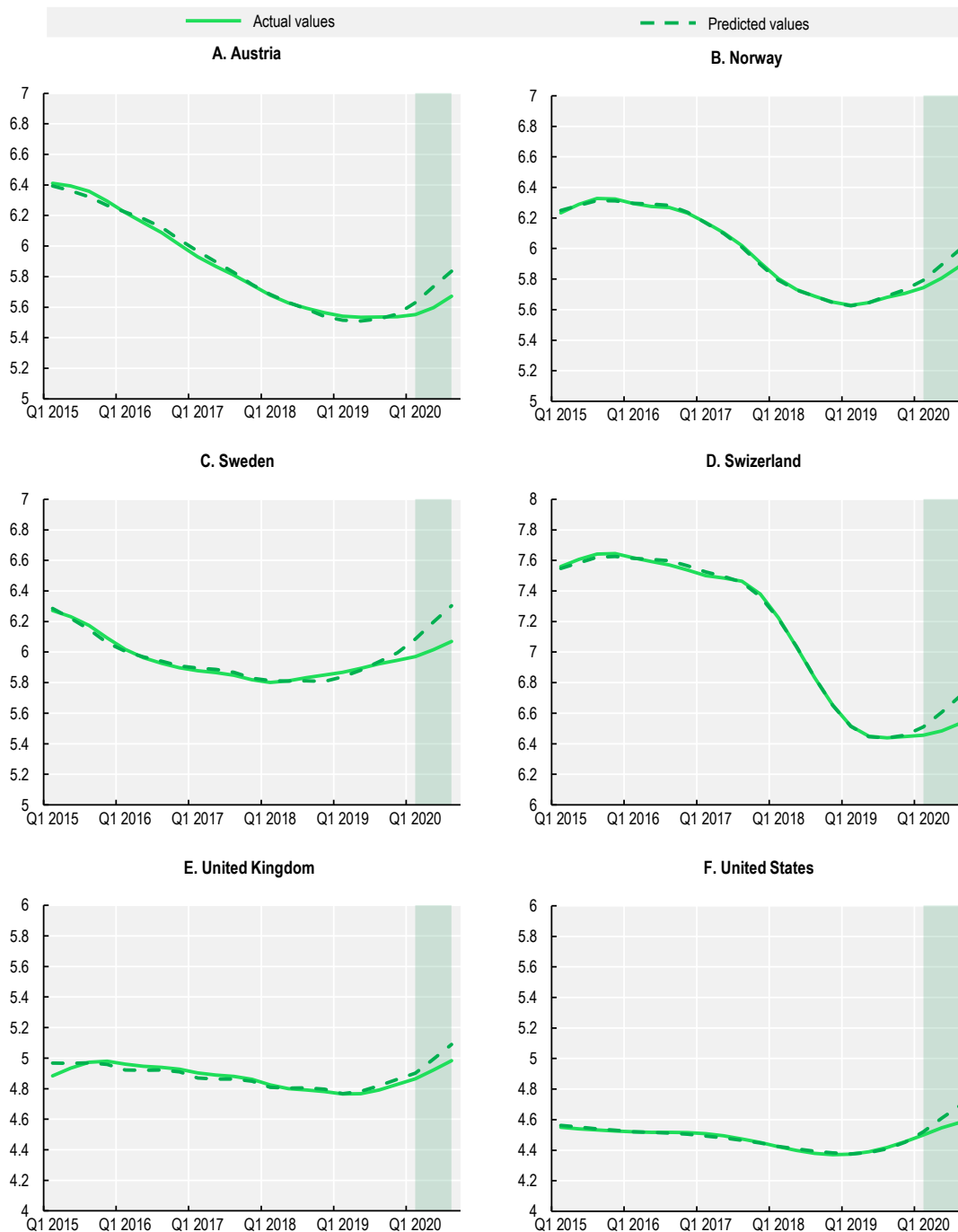
Note: Job-filling rate: ratio of hires to job vacancies. Predicted job-filling rates are based on country-specific regressions on labour market tightness using data for the period before the COVID-19 crisis (Q1 2015-Q4 2019).
Source: Hires: European Union Labour Force Survey (EULFS) for European countries and Job Openings and Labour Turnover Survey (JOLTS) for the United States. Job vacancies: OECD Short-Term Labour Force Database.

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Box 2.5. Assessing the role of job retention schemes for labour market efficiency

Matching functions describe the ease with which job openings can be filled (or unemployed job seekers can find jobs) for a given level of labour market tightness. For the purpose of this chapter, matching functions for the job-filling rate are estimated separately for each country using the following empirical model (Petrongolo and Pissarides, 2001[19]; Federal Reserve Bank of San Francisco et al., 2011[20]):

$$(1) \ln y_t = \alpha_0 + \alpha_1 \ln\left(\frac{v_t}{u_t}\right) + \varepsilon_t$$

where y refers to the job-filling rate, u and v refer to the number of vacancies and unemployed job seekers and ε an independent error term. α_1 captures the sensitivity of matching measured in terms of the job-filling rate with respect to labour market tightness and α_0 measures the degree of matching frictions conditional on labour market tightness. Matching functions are estimated separately for each country using quarterly data for the pre-crisis period (Q1 2015 to Q4 2019). The evolution of the job-filling rate since the start of the crisis can be predicted by combining the estimated parameters of the matching function with the actual evolution of labour market tightness since the start of the crisis. While these estimates suggest that matching efficiency may have declined since the start of the crisis in a number of countries, there is no clear relationship with the use of JR schemes (Figure 2.10).

Figure 2.10. The shortfall in the job-filling rate during the COVID-19 crisis is not related to the use of JR schemes
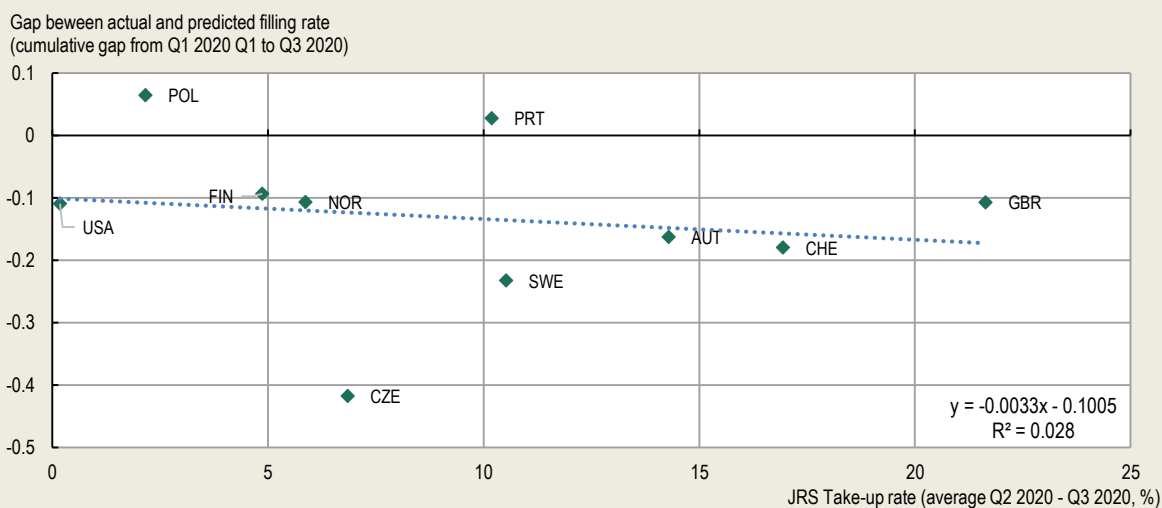
Source: Hires: European Union Labour Force Survey (EULFS) for European countries and Job Openings and Labour Turnover Survey (JOLTS) for the United States. Job vacancies: OECD Short-Term Labour Force Database.

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2.4. Policy discussion: Combining job retention policies with job reallocation

With job vacancies and job search remaining depressed in most countries, JR schemes mainly helped preserve jobs and limit the surge in unemployment, probably without a significant impact on workers' flows towards expanding firms. As a result of often strict social distancing restrictions, many jobs were

temporarily at risk, limiting the risk of subsidising jobs that do not need support (deadweight costs), while the risk of significantly stifling job creation was small since the scope for effective job search and job mobility was limited. This justified the measures taken by governments to promote the use of JR support during the initial phase of the COVID-19 crisis.

Going forward, concerns about the possible adverse effects of JR schemes on job reallocation are growing, but withdrawing the support too early or too widely risks generating a sudden wave of layoffs.[26] A careful scaling back of JR support should be implemented flexibly, closely following the evolution of the economic and health situation, and likely requires a differentiated approach across sectors. Firms and sectors whose ability to operate remains constrained by health recommendations or legal restrictions should continue to receive strong JR support. In other sectors, however, continuing to provide generous support after the end of health and legal restrictions carries an increased risk of supporting unviable jobs and consequently potentially undermine job creation and reallocation as economic activity resumes. Here, the challenge for governments is to adapt JR schemes to provide incentives for firms and workers to use support only for jobs that are temporarily at risk but remain viable in the longer term. Indeed, as firms with temporary difficulties are likely to leave support when activity can resume – as witnessed during the third quarter of 2020 – the share of firms with structural problems is likely to increase.

This section discusses the dimensions along which job retention schemes can be adapted and how the changes can be implemented keeping into account the uncertain evolution of the crisis and its differentiated impact across sectors. It focuses on the following three key issues:

- Limiting the maximum duration of support
- Enhancing the targeting of support
- Supporting workers in jobs at risk

2.4.1. Limiting the maximum duration of support

While support should remain in place as long as government-imposed health measures restrict economic activity, once these measures are withdrawn and economic activity can resume, support should become time-limited to reduce the risk of subsidising jobs that no longer need support or jobs that have become unviable. Since STW schemes provide relatively strong incentives for resuming working hours once business conditions have improved, the main purpose of maximum limits for those schemes is to avoid supporting jobs with structural problems. By contrast, WS are not conditional on reducing working time and therefore provide strong incentives for drawing support as long as possible irrespective of the financial need or the viability of the job. To limit the risk of subsidising jobs that do not need support (i.e. deadweight losses), firm eligibility needs to be re-assessed regularly in WS schemes. Conditional on eligibility requirements being met, limits to the effective maximum duration serve the same purpose as in STW schemes, i.e. reducing the risk of preserving jobs that have become unviable in the longer term.

The maximum duration of support varies considerably across JR schemes. In countries with STW schemes, the maximum duration varies from about three months in Japan, Latvia and Portugal to 18 months in Switzerland up to 24 months in Germany. In Germany, firms which started using STW before 31 December 2019 can continue to do so for up to 24 months without reassessment of eligibility until the end of 2021 (compared to 12 months in normal times). While the maximum duration of support in Switzerland is also quite long, its continued use is subject to regular reassessments of firm eligibility (every 3 or 6 months).[27] In countries with WS schemes, the maximum duration of support tends to be short (around 3 months) or firm eligibility is re-assessed regularly. In countries such as Australia, the Netherlands and the United Kingdom, several extensions have been introduced, allowing for additional support for firms that remain eligible, albeit in some cases under less generous conditions.

2.4.2. Enhancing the targeting of support

Limiting the maximum duration prevents that jobs are supported for too long, particularly those with limited prospects of recovering, but does not ensure that subsidies go to the right jobs, i.e. jobs that are temporarily at risk but will be able to resume in the not too distant future. Firms and workers typically have a better sense of the viability of jobs than governments, particularly in the current context where social distancing restrictions remain important and market signals are weak. Financial incentives for firms and workers can help enhance the targeting of JR support to jobs that are temporarily at risk, but viable in the longer term.

Requiring firms to contribute to the costs of reduced working hours

While the cost of reducing working time was set to zero in response to the COVID-19 crisis in most countries, governments should consider (re)introducing some cost-sharing with firms in sectors where restrictions are withdrawn and activity can resume. While this would reduce the attractiveness of STW for firms in general, it would also strengthen incentives to use support only for jobs that are likely to re-start after the crisis and to resume regular work schedules as soon as possible. A number of countries have introduced co-financing for firms, while others have increased the rate (Figure 2.11). For example, since 1 June 2020, firms in France were required to pay 10% of the cost of hours not worked (15% of the benefit) in sectors that were no longer subject to economic restrictions.[28] This is expected to increase to 24% from 1 July 2021 (40% of the benefit). The United Kingdom had started to gradually increase the cost to employers for keeping workers on furlough from July 2020, but as the health situation deteriorated in the fall, largely reverted to its original version with firms only required to pay social security contributions over hours not worked. Employers in Germany will be liable to pay 50% of social security contributions from July 2021 and 100% from January 2022, which is the usual rule during short-time work. In Norway, the waiting period during which firms have to pay full wages has been increased from 2 to 10 days since November 2020. Latvia introduced a new scheme in response to the second wave of the virus which requires firms to cover up to 20% of the costs of hours not worked, while employers did not have to contribute anything with the temporary scheme that was operational during the first wave.

Figure 2.11. Some countries recently introduced co-financing by firms or increased the rate

Cost of hours not worked for firms as percentage of labour cost for the maximum permissible reduction in working time, May/June 2020 and January 2021
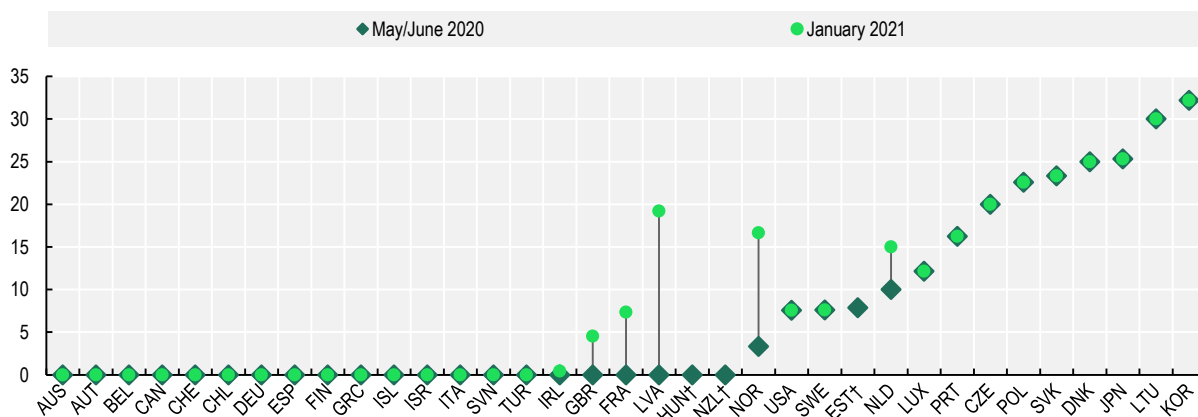
Note: † Schemes no longer operational in January 2021. Mandatory employer contributions for private insurance are not taken into account (consistent with the OECD methodology of Taxing Wages). Norway: for the first 3 months (60 days). For full details see Annex Table 2.A.2.
Source: Country answers and ad hoc updates to OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes.

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The optimal contribution of firms for hours not worked depends on efficiency considerations related to the risk of slowing job reallocation and equity considerations related to the risk of reinforcing labour market duality.

If the objective is to prevent supporting jobs that are permanently unviable, a small co-payment by firms should be sufficient. This would help to reduce the risk of supporting permanently unviable jobs from the start of programme participation rather than only after the maximum duration of support. In practice, the objective of co-financing is likely to go beyond preventing permanently unviable jobs by limiting support to jobs that are viable after the maximum duration of support. To the extent that jobs that are not viable after this period will be terminated, it may be preferable to avoid supporting such jobs in the first place. This requires a more significant co-payment by firms. To provide a broad idea of the approximate co-financing rate, Box 2.6 considers a set of numerical examples. For STW schemes with a maximum duration of 12 months, requiring firms to pay 8.5% of the costs of hours not worked may be enough to limit support to jobs for which the costs of closing and re-opening them exceeds one month of pay. Having a shorter maximum duration or restricting support to jobs with larger replacement costs would be consistent with a larger co-payment.

While co-payments by firms increase the targeting of support to viable jobs (and firms), they can have unintended consequences. First, co-payments may reinforce firms' financial difficulties and increase the risk of bankruptcies. To avoid increasing the risk of bankruptcies in solvent but illiquid firms, co-financing by firms could take the form of a delayed payment or (zero-interest) loan (Cahuc, Kramarz and Nevoux, 2018[23]; Burdett and Wright, 1989[24]).[29] Second, co-payments by firms risk reinforcing labour market duality by limiting support to workers with high replacement costs, e.g. permanent workers with significant firm-specific skills and severance pay entitlements, and laying off workers with low replacement costs, e.g. temporary jobs or jobs with limited skill requirements. Indeed, Tilly and Niedermayer (2017[25]) show using administrative data for Germany that take-up is increasing in tenure and experience.[30] This reflects weak incentives for firms to hoard such workers rather than concerns over the viability of these jobs in the future. A potentially more nuanced but also much more complex and so far untested approach would be to link the co-payment to tenure or contract status.[31]

Box 2.6. Setting the STW co-financing rate: A quantitative illustration

Job retention schemes seek to limit inefficient layoffs, i.e. jobs that have become unprofitable temporarily for firms but remain viable in the longer term. This may be because firms cannot unilaterally reduce earnings in line with the decline in business activity (sometimes referred to by economists as "wage rigidity") or because firms do not have the means to absorb the costs of reduced business activity due to liquidity constraints even though this would be profitable in the medium term. JR schemes help to overcome earnings rigidities and alleviate liquidity constraints by allowing labour costs to decline in line with the decline in business activity.

In the context of STW, firms face a choice between using STW to retain workers and laying them off. This requires comparing the cost of hoarding workers with STW support on the one hand with the cost of laying off workers and recruiting and training new ones once business activity resumes on the other. The cost of labour hoarding depends on the duration of reduced business activity (and STW support) and the cost for firms of hours not worked. The replacement cost of workers consists of firing costs (e.g. notification requirements and mandatory severance pay, privately negotiated severance pay, experience-rated social security contributions) and hiring costs (e.g. recruitment costs, formal training, on-the job learning). These costs are likely to be larger for workers with higher levels of firm-specific capital, i.e. workers who have considerable experience in the firm and who engage in knowledge-intensive activities.

In the absence of any co-financing requirements, the cost of labour hoarding under STW is zero and hence labour hoarding with STW is beneficial to firms for all workers irrespective of the period over which workers should be hoarded. With co-financing requirements, labour hoarding with STW is only beneficial for workers in firms for whom the replacement cost exceeds the cost of labour hoarding over the period. This is more likely the higher the replacement cost of workers (the cost of firing, hiring and training) and the lower the cost of labour hoarding (the shorter the hoarding period and the lower the co-financing rate for STW).

To provide an indication of the appropriate co-financing rate Figure 2.12 calculates the STW co-financing rate for different combinations of replacement and hoarding costs. When business activity is down by 100% for a period of 24 months, a small co-financing rate of about 4% of the costs of hours not worked ensures that all jobs with a replacement cost of one month of salary or more will be preserved. When business activity is completely down for 12 months, a co-financing rate of 8.5% should ensure that jobs with a replacement cost of one month of salary or more will be preserved, while a co-financing rate of 17% would allow preserving jobs with a replacement cost of two months of salary or more.

Figure 2.12. The co-financing rate could be higher the lower the cost of labour hoarding and the higher the replacement cost of workers

The co-financing rate for given hoarding and replacement costs
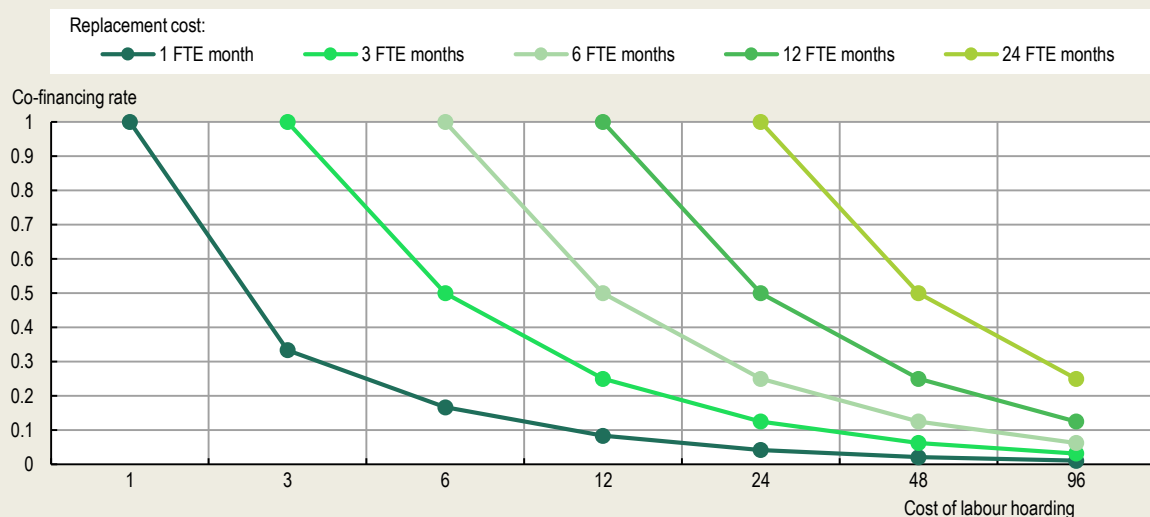
Note: The cost of labour hoarding in the absence of STW is defined as the number of months of salary that need to paid to keep a worker when business activity is down (in full-time equivalents). For example, if activity is down by 50% for a period 12 months, the cost of hoarding will be 6 months in full-time equivalents. The replacement cost of workers is defined as the firing, hiring and training costs of workers in terms of months of pay.

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While WS schemes typically have short maximum durations, they have been extended multiple times in a number countries, raising similar issues as STW in relation to reallocation. To address this issue to some extent, governments could ensure that employers bear some of the cost of hours not worked – at least for large reductions in working hours – by requiring firms to pay a fraction of a workers' usual wage regardless of hours worked with the subsidy set to cover only part of that pay.[32] The WS scheme operated in the Netherlands mimics STW schemes that require firms to share some of the cost of hours not worked. While

workers continue to receive 100% of their earnings during periods of reduced working time, employers receive at most 90% of the wage, depending on the decline in business activity. Since 1 October 2020, firms are allowed to reduce the wage bill by 10%, be it through quits or layoffs during a 3-month period, *without* a reduction in the subsidy. The implications for job retention and job reallocation of this measure are discussed in Box 2.7.

Box 2.7. Reconciling job retention and job reallocation: An example from the Netherlands

In the initial versions of the Dutch JR scheme (NOW1 and 2), participating firms had to pay full earnings, were not allowed to make any layoff and received a subsidy of 90% of the wage bill times the expected reduction in sales for all workers in the firm. This system supported job retention, but impeded job reallocation due to the restrictions on firing. In the revised version of the scheme operational from 1 October 2020 (NOW3) the ban on firing is lifted: firms are allowed to reduce the wage bill by up to 10% through quits or layoffs, *without* a reduction in the subsidy. The subsidy is now computed as 80% of the wage bill times the expected decline in sales (85% from 1 January 2021) while firms continue to be required to pay full earnings to all workers.

The new version of the scheme continues to support the retention of core workers, but also generates incentives to adjust employment by laying off marginal workers whose hours have been reduced. To see this, consider as an example a firm with ten workers of which five workers continue to work full-time and five are put on furlough following a reduction in business activity of 50%. According to the rules that were introduced in October 2020, the firm continues to pay full earnings to the furloughed workers (equal to 50% of the usual wage bill) and receives a subsidy of 0.8*0.5 or 40% of the usual wage bill. Hence the total cost of the five furloughed workers amounts to 10% of the usual wage bill. However, the firm can now bring the total cost of hours not worked to zero by laying off one of the workers on furlough – hence reducing the amount it pays to workers from 50% to 40% of the usual wage bill while still receiving a wage subsidy of 40%.

The new scheme therefore at the same time actively promotes job retention of core workers and job reallocation of marginal workers. Whether this is desirable is debatable. Indeed, one might wonder whether a more neutral treatment of layoffs would not be preferable. For example, layoffs could be allowed with a pro rata adjustment of the subsidy in case of layoffs and quits instead.

Aligning STW and unemployment benefits more closely in countries where the gap is large

Balancing job retention and reallocation also requires striking the right mix of in-work and out-of-work support in the form of JR and unemployment benefits (UB). In most countries, JR benefits for hours not worked exceeded regular unemployment benefits during the initial period of the COVID-19 crisis (Figure 2.13).[33] The largest differences with UB can be found in countries with temporary JR schemes such as Denmark and the Netherlands, which offer full income protection to workers, as well as countries with means-tested UB such as Australia, New Zealand and the United Kingdom. Higher replacements rates for workers increase the attractiveness of short-time work in comparison to (full) unemployment and the willingness of workers, including those not directly at risk of being laid off, to accept a reduction in working hours as part of a STW scheme.[34] One argument why JR benefits should be more generous than UB in the beginning of a deep crisis may be that it helps to limit congestion in the labour market, as many unemployed search for a limited number of jobs (Giupponi and Landais, 2018[26]; Lalive, Landais and Zweimüller, 2015[27]), and prevents the PES from being overwhelmed (OECD, 2020[1]). In other words, the flattening-the-curve argument that has been used to justify lockdown measures to contain the health crisis equally applies to the use of JR schemes to contain the jobs crisis.[35]

As concerns about congestion in the labour market diminish and those about the cost-effectiveness of JR support become more important, there may be a case for rebalancing JR with UB support, by reducing the gap between STW benefits and regular unemployment benefits, notably in countries with particularly generous JR benefits. These changes would help contain the overall cost of JR schemes, and might improve the targeting of STW schemes to jobs at risk of being destroyed by reducing the willingness of workers to accept STW. Lower subsidies might also increase incentives for workers to resume normal working hours or actively look for another job altogether (see also discussion on financial incentives to promote job mobility below). Even with a smaller difference when compared to unemployment benefits, JR is likely to remain attractive because it preserves the employment contract and the non-wage benefits linked to it (fringe benefits, social security, including access to health insurance in some countries). In France's general STW scheme, the gross replacement rate has been reduced from 70% to 60% in April 2021, while in the Australia and the United States the lump-sum benefit was reduced.

There may also be an argument for letting benefits decline over the support period in countries where the maximum duration is relatively long. One justification for this could be that the risk of supporting permanently unviable jobs increases with the duration of support. Another is that since in most countries unemployment benefits decline over the spell already, a similar benefit schedule may be needed for JR benefits to prevent the gap between the two from increasing over time. To the best of our knowledge, no country operates a JR scheme with a declining benefit schedule. Interestingly, Germany temporarily operates increasing benefit schedules. This is based on the observations that i) during the COVID-19 crisis workers in the services sector are hit particularly hard, ii) these workers are less likely to be covered by top-ups in sectoral collective agreements and iii) the risk of financial hardship is likely to increase over the period of reduced activity. Korlsrud (2018[28]) recently proposed a similar argument for having increasing benefit schedules for unemployment benefits (see Hijzen and Salvatori (2020[29]), for a discussion of this issue in the context of unemployment benefits).

Figure 2.13. Gross replacement rates in job retention schemes tend to be higher than in unemployment benefit systems

Percentage of gross wage, evaluated at the average wage for the maximum permissible reduction in working time
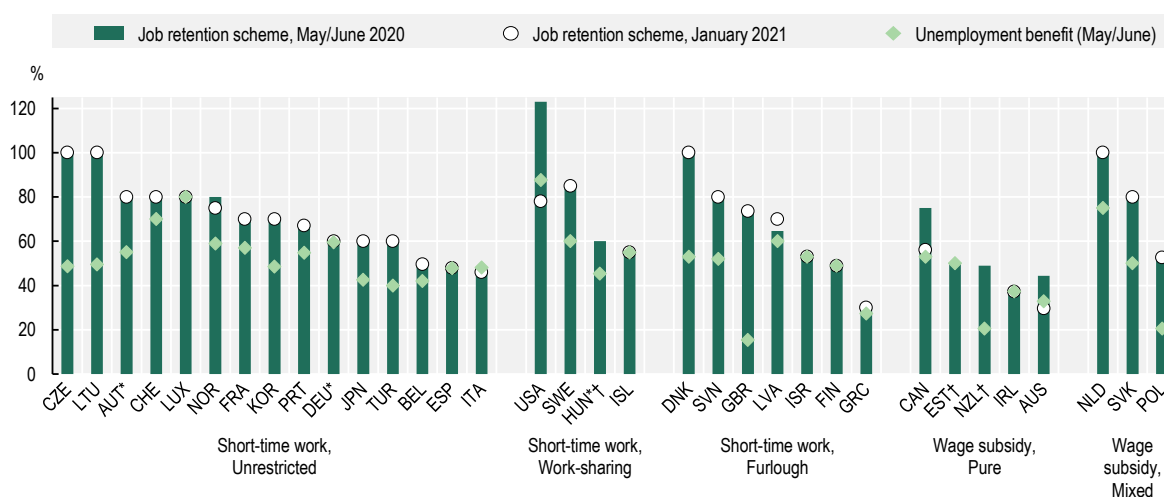
Note: * Net terms (after taxes and other benefits). † Ended schemes in January 2021. Unemployment benefit for a single adult with no children and two months of unemployment.
Source: Country answers and ad hoc updates to OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes; Calculations based on output from the OECD tax-benefit model (version 2.3.0) along with ad-hoc updates based on the Policy Tracker of the Policy Responses to the COVID-19 crisis.

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How to adjust the level of support available for firms and workers has been a major challenge for governments. The consensus over the course of the COVID-19 crisis has been to protect firms and workers as much as possible from the direct effects of health-related restrictions on economic activity.[36] As a result, firms typically were able to reduce working time in line with the decline in business activity at no or limited costs and benefits for workers were exceptionally generous (OECD, 2020[1]). However, this also meant that adjustments needed to be made as economic restrictions were withdrawn, particularly in countries where significant special measures were introduced in response to the crisis. This was complicated by the fact that restrictions were often not universal, but limited to specific sectors or regions and the risk of a relapse in the form of a second or a third wave loomed. Adjustments typically related to the generosity of support to firms and workers, i.e. the contribution rate by firms and the replacement rate to workers for hours not worked. In some cases, adjustments have also been made with respect to firm eligibility (tightening eligibility as government measures are withdrawn or economic conditions improve).

To reduce uncertainty about the degree of JR support available in the future, one promising avenue is to relate the degree of JR support more directly to the evolution of the health and the economic situation. Most countries already make use of dashboards to monitor the health and economic situation and inform policy. In principle, these could be used to explicitly relate the level of JR support to the health and economic situation. As long as social distancing restrictions remain significant, the health situation, possibly differentiated across regions, may be the main determinant for the degree of support. To take account of the differential effect of social distancing measures across sectors or firms, information on sales may be used as a complement. Once social distancing restrictions have been withdrawn, the strength of the economic recovery could determine to what extent prolonged support is necessary. This could be based on a set of readily available indicators of the state of the labour market, such as statistics on vacancies, hires and separations, the unemployment rate or broader measures of labour market slack accounting for underemployed and marginally attached workers (issues that are particularly important in the current context – see Chapter 1).

Based on these health and economic indicators, the generosity of JR support to firms and workers could be allowed to evolve gradually. For example, the cost of hours not worked for firms could be allowed to increase gradually to its desired long-term level in countries with permanent schemes and 100% in countries where JR support is supposed to remain temporary. Similarly, the benefit for workers for hours not worked could be gradually brought in line with that for unemployed workers in countries where this is considerably higher. To provide a maximum degree of transparency and predictability about the degree of JR support available to firms and workers, it is important to not just monitor the health and economic situation, but also provide forecasts of their evolution in the near term and their implications for the availability of JR support under different scenarios of the short-term outlook.

To take account of the fact that the impact of economic restrictions varies across sectors, regions and firms, some countries differentiated JR support. France for example applied different rules for sectors that remained subject to government-imposed restrictions and those that were not. Firms in sectors without major government restrictions were required to contribute 10% of the cost of hours not worked (expressed in usual gross wages) from 1 July 2020[37] and 24% from 1 July 2021, while this has remained zero in sheltered sectors. Moreover, from 1 May 2021, support without co-financing by firms in sheltered sectors has been restricted to firms experiencing significant reductions in revenue (more than 80%), with other firms being gradually brought into the general regime.[38] Portugal introduced a new temporary scheme in August 2020 that requires firms to pay for 30% of the costs of hours not worked when working time is reduced by less than 60%, while there is no co-financing for firms with larger reductions in working time. Moreover, firms with a reduction in sales of more than 75% firms receive an additional WS to contribute to the cost of hours worked.[39,40]

> **Box 2.8. Balancing job retention and job reallocation: The use of layoff bans in JR schemes**
>
> A number of countries impose restrictions on layoffs for firms that make use of JR support. Restrictions increase the costs of layoff by requiring firms to pay back the subsidy and in some cases a fine (Netherlands until June 2020, New Zealand, the United States) or ruling out economic layoffs, with the implication that they will be considered unfair if challenged in court (Spain and Portugal). The restrictions may apply only during programme participation or extend for a period after its end. For example, in Denmark the tripartite agreement between the government and social partners establishing the new STW scheme for the COVID-19 crisis banned firms from laying off workers while receiving support. In Hungary and Latvia, layoffs are banned until one month after programme participation, and for two and six months respectively in Portugal and Spain. Austria normally enforces a ban that extends for a month after the end of the support, but this was suspended by an agreement among social partners in the summer of 2020.
>
> Bans on layoffs can be viewed as a conditionality imposed on firms in return for public support. However, whether they are socially desirable remains unclear a priori because they can have potentially contrasting effects on job retention and job reallocation. By increasing the de facto firing costs, layoff bans may improve the targeting of the schemes to jobs that are more likely to remain viable, with a potential positive effect on job reallocation, but at the costs of less job retention (especially among workers with lower replacement costs in temporary jobs or jobs with limited skill requirements). However, it is also possible that layoff bans increase job retention by making it more difficult to lay off workers on JR schemes when business conditions deteriorate and slow down job reallocation. The relative magnitude of these different effects is likely to depend on the specific design of the bans and remain an open empirical question.
>
> As the COVID-19 crisis hit, Italy took a more radical approach, banning all layoffs regardless of the actual use by firms of JR schemes. Because of the political difficulty of lifting them, such bans run the risk of staying in place for too long, slowing down the necessary adjustment in the labour market and generating a wave of layoffs when they are eventually removed. In general, designing JR schemes that encourage widespread take-up is likely to be a preferable approach that provides workers with a strong level of protection while limiting the risk of overly restrictive measures that can hinder the recovery.

2.4.3. Supporting workers in jobs at risk

While the main aim of JR schemes is to preserve jobs, they will not be successful in all cases as some jobs may have become permanently unviable. Some workers in subsidised jobs may have limited career prospects and remain at risk of losing their job eventually. Government can promote the career prospects of workers by investing in the viability of their current job or facilitating job mobility across firms.

Promoting the mobility of workers from subsidised to unsubsidised jobs

The permanent mobility of workers from subsidised to unsubsidised jobs[41] can be promoted through the provision of effective public employment services (PES), by engaging employers in supporting job mobility among workers in jobs at risk and by strengthening the incentives of workers for job mobility.[42]

Governments can promote job mobility among workers in subsidised jobs by encouraging or requiring workers on short-time work to register with the PES and benefit from their support (e.g. job-search assistance, career guidance and training (cf. Chapter 3). OECD analysis shows that early interventions – including those before job displacement takes place – can be very effective in promoting smooth job transitions (OECD, 2018[30]).

Mandatory registration requirements exist in only few countries, and typically concerns countries where JR support is part of the overall UB system and subsidies are paid directly to the worker (e.g. Finland, Ireland (STW), and Norway).[43] Mandatory job-search requirements are even less common and where they exist, they do not tend to be enforced in practice (e.g. Finland, Norway). This is not surprising since workers on JR schemes are supported to keep them in their existing job. Consequently, the main purpose of mandatory registration requirements in the context of JR schemes may be to encourage workers to make use of PES rather than to impose job-search requirements.

About half of countries allow for the voluntary registration of workers on JR support with the PES and enable such workers to access their services (e.g. job-search assistance, career guidance, counselling). This includes both countries with STW schemes (e.g. Belgium, Canada, Germany, Italy, and Switzerland) and countries with WS schemes (e.g. Australia, Canada). While little is known about the actual number of people in subsidised jobs who register with the PES, let alone their level of engagement with any of their activities, there are good reasons to believe that this tends to be rather modest in practice.[44] Governments can promote registration with the PES by reaching out to firms that make use of JR support with information about the process and the potential benefits this can provide. For example, the Ministry for Social Development in New Zealand contacted firms using JR support with information about training opportunities.

Firms could also play an active role in promoting the mobility of workers at risk of dismissal. For example, the Netherlands requires employers using JR support to stimulate career development among employees. Concretely, employers are obliged to inform the works council when using JR support and to contact the PES when dismissing a worker for economic reasons. These notification requirements provide a natural starting point for discussing possible development options. Development measures can be financed through education and development funds ("O&O fondsen") managed by the social partners or through additional funding made available by the government. Sweden has a well-established system of Job Security councils that can be activated to provide income support and employment services in the case of collective dismissal (OECD, 2018[31]).

Financial incentives could also be used to promote the mobility of workers from jobs supported by JR schemes to other jobs. For example, it may be possible to temporarily reduce employee social security contributions for workers starting a new job in a firm not receiving JR support or to temporarily provide an in-work benefit. These job mobility "bonuses" compensate workers for the cost of changing jobs, while at the same promote the reallocation of workers from subsidised jobs to expanding firms. A similar bonus could be made available for persons moving from unemployment into work as well as new labour market entrants (e.g. youth). The fiscal cost of such a measure would most likely be limited if kept for a short period of time (say 3 months) since the cost-saving effect of reduced JR (or unemployment) benefits would most likely outweigh the cost of the bonus (Cahuc, Carcillo and Le Barbanchon, 2019[32]). In Spain, it is possible to keep JR benefits for a limited period of time after having moved to another firm.[45]

Box 2.9. Temporarily working in a different firm while receiving STW benefits

A number of countries allow workers on short-time work to temporarily work in another firm (e.g. Belgium, France, Finland, Germany, Spain and Switzerland). The main argument for this provision is to allow low-wage workers to top-up their earnings. This may be particularly relevant in countries where STW replacement rates are low or that do not have a minimum level of benefits (for example, because there is no minimum wage). Other arguments that are sometimes advanced include providing workers with work experience that may be relevant for their current job or facilitate making a permanent transition to another job and alleviating bottlenecks in the labour market. The main concern about this provision is likely to be that it reduces incentives among workers for resuming normal working hours in their main job or making a permanent transition to another job.

Source: Responses from the Joint OECD/EC Questionnaire on Active Labour Market Policy Measures to Mitigate the Rise in (Long-Term) Unemployment (Q4 2020) as well as the OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes.

Promoting training while on reduced working hours

Participation in training while on reduced working hours can help workers improve the viability of their current job or improve the prospect of finding a new job. Several countries actively encourage training during short-time work by providing financial incentives to firms or workers (e.g. France, Germany, Japan, Portugal) or setting expectations (e.g. Netherlands). In France, employers were fully reimbursed for the costs of training and for 70-80% since March 2021. In Germany, training costs are reimbursed up to 100%, with larger subsidies for smaller firms. In addition, from July 2021, as the obligation to pay social security contributions on hours not worked is re-introduced, firms that place their workers on training will have them discounted by 50% till July 2023. In the Netherlands, employers applying for JR support have to declare that they actively encourage training since June 2020, while the government has taken additional measures to make on-line training and development courses freely available. Formal training requirements as a condition for JR support currently do not exist.[46] By contrast, in Italy, Greece and Chile, training is not allowed during subsidised hours. This most likely reflects concerns about abuse in relation to training provided within the firm to the extent that this makes it difficult to distinguish between work and training, particularly when provided informally. To some extent, this can be addressed by allowing only for formal training. Any remaining concerns about abuse should be weighed carefully against the costs of excluding training while on reduced working time completely.

There is limited information on the use and nature of training whilst on JR support during the COVID-19 crisis. Evidence from the global financial crisis suggests that the use of training was negligible in most countries (Hijzen and Venn, 2011[4]). To some extent this reflects the difficulty of engaging employed adults in training more generally. Only about 40% of all adults participates in training in normal times (OECD, 2020[33]). However, it is also likely to reflect the difficulty of organising training in such a way that it can be combined with temporary reductions in working time. This is easier when training courses are targeted at individuals rather than groups, delivered in a flexible manner through online teaching tools and their duration is relatively short (OECD, 2020[34]). France has been one of the countries that has been most successful in engaging workers on JR support with training (Box 2.10). In November 2020, almost one in five workers on JR support participated in training.

Box 2.10. The use of training while on short-time work: The case of France
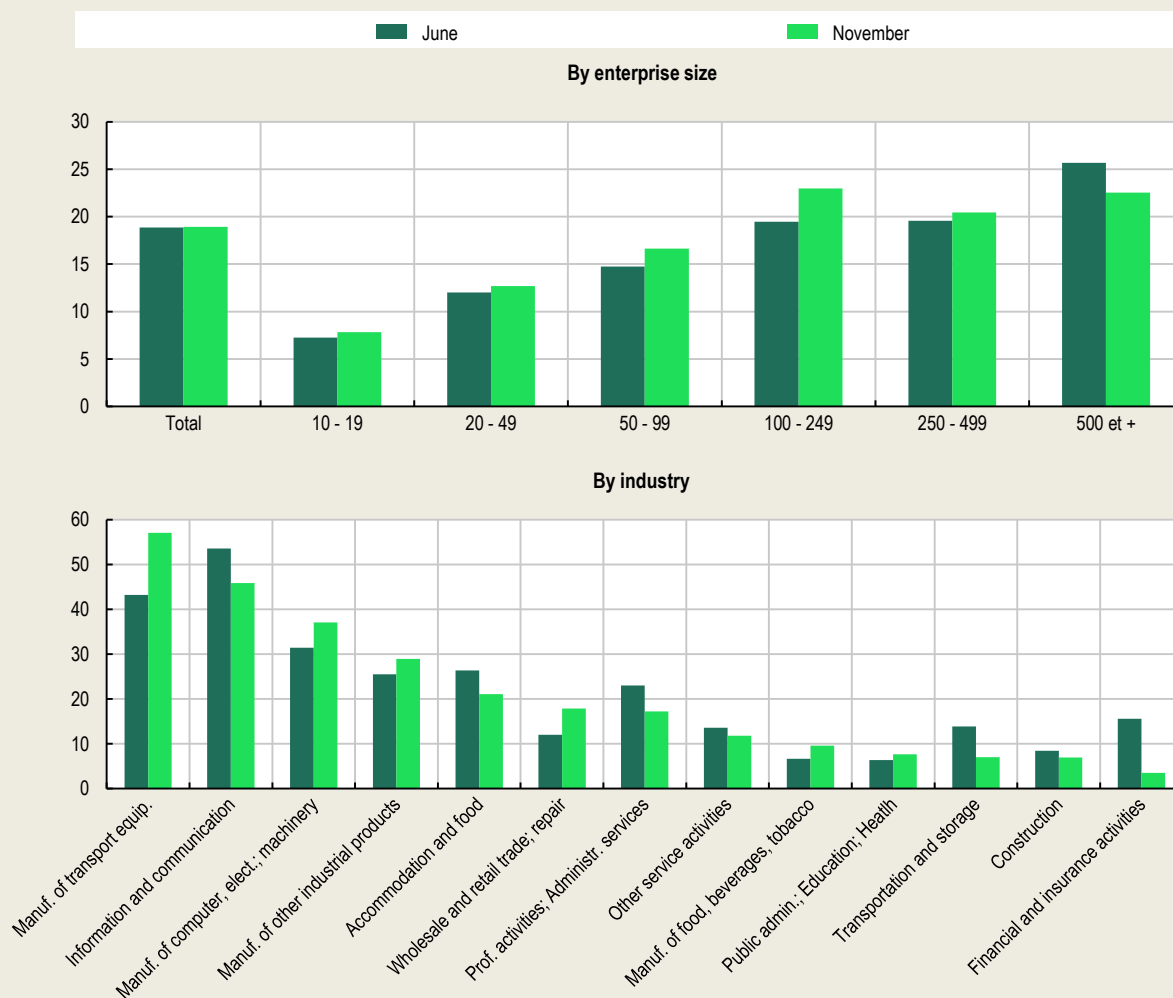
France has been one of the countries that has been most successful in combining short-time work with training. In November 2020, almost one in five workers on JR support participated in training. There are however important differences across firms and industries (Figure 2.14). Even if the use of training while on short-time work is only slightly above-average in large firms (>100 employees), in small and medium sized firms, this is considerably lower at respectively 8% for firms with 10-19 employees and 12% for firms with 20-49 employees. Differences across sectors are even larger with take-up reaching more than 30% in most manufacturing industries (and over 50% in manufacturing of transport equipment), while it tends to remain below 10% in transport, construction and financial services. The relative importance of training in larger firms and firms in manufacturing is likely to reflect the importance of skills, particularly in the form of firm-specific human capital, and a relative emphasis on long-term contracting. It may also reflect the difficulty of identifying suitable training opportunities by small firms (OECD, 2019[35]).

The well-established infrastructure for adult learning coupled with generous financial resources is likely to have been key for the relatively high use of training while on short-time work in France. The system for adult training among the unemployed was swiftly redeployed to support workers on STW (*FNE Formation*). The programme fully reimburses the pedagogical expenses of training for employers, with limited conditions on the type of training that is pursued and workers receive 100% of the usual wage when participating in training. About half of workers participating in training while on STW were supported

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by *FNE Formation*. Since these subsidies are directed at employers they are likely to be used mainly for training courses that enhance the performance of workers in their current firm. France's system of individual training accounts (*Compte Personnel de Formation, CPF*) can also be used for training whilst on STW. This is explicitly directed at the workers themselves and s more likely to be used for training courses that enhance opportunities for career advancement more generally, including through job mobility between firms.

Figure 2.14. The use of training for workers on short-time work in France

Percentage of persons on short-time work by firm size and industry, June and November 2020

Note: Non-responses are not included.
Source: Dares, Enquête Acemo Covid. https://dares.travail-emploi.gouv.fr/dares-etudes-et-statistiques/.

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2.5. Concluding remarks

Job retention (JR) schemes have been the main policy tool used by most OECD countries for stemming the labour market impact of the COVID-19 crisis. This has helped limit the increase in unemployment and prevent financial hardship among workers and their families. At the same time, preliminary evidence suggests that concerns that JR schemes might significantly slow the reallocation of jobs to high-performing firms and undermine job creation have not materialised so far. Job vacancies remain depressed on the whole and there is no evidence that the use of JR schemes has made it more difficult to fill them. The risk of growing dependency on JR benefits seems limited. During periods when business activity was able to resume, take-up declined quickly. Nevertheless, as jobs in firms facing temporary difficulties restart and are no longer covered by the programmes, the share of supported jobs in firms with structural problems is likely to increase. This is why JR support has to remain temporary and become more targeted on jobs in temporary need of support due to the effects of social distancing restrictions rather than those at risk because of pre-existing structural difficulties. Indeed, well-designed JR schemes need to be timely, targeted and temporary:

Timely. To be effective, JR support needs to be timely. The unprecedented levels of take-up soon after the outbreak of the COVID-19 crisis in many countries suggest that by and large this was the case. Moreover, and in contrast to the experience during the global financial crisis, high take-up was achieved both with pre-existing schemes and new ones that were introduced in response to the COVID-19 crisis. In almost all countries, applications could be made on-line and the approval process was largely automated. However, there are important differences across countries in the time between application and the actual payment of the subsidy. Reducing the delay in payments to a minimum is crucial for the effectiveness of JR support. Where possible, payments should be made partly in advance. Proof of eligibility, when required, and the circumstances determining the amount of the subsidy can be verified ex post.

Targeted. As the COVID-19 crisis took off, most countries took steps to ensure that JR schemes provide broad-based support for all firms and workers that were affected by social distancing restrictions, with limited attention to their fiscal costs or implications for the recovery. However, this also increased the risk of subsidising jobs that did not need support and jobs that would have disappeared even in the absence of the pandemic. To prevent JR schemes from becoming an obstacle to job reallocation and job creation in the recovery, it is important that their targeting is enhanced by strengthening the conditions for eligibility and bolstering incentives of firms and workers to limit support to jobs that are at risk, but remain viable in the medium term. Where necessary the rules can be differentiated between sectors and firms according to the impact of social distancing restrictions on their activities.

Temporary. JR schemes are an important tool for limiting excessive layoffs in the context of a temporary reduction in business activity, but should not be used to support firms with structural difficulties as this risks undermining job reallocation and the creation of good jobs. While support should remain in place as long as government measures restrict economic activity, the use of JR support should be time-limited once economic activity can resume. It may be preferable that firms with structural problems restore financial health by restructuring. Workers who lose their jobs should be supported through effective income-support schemes and re-employment support provided by the public employment services (cf. Chapter 3).

Adapting JR schemes to the evolving crisis is challenging. The degree of uncertainty over the short-term outlook remains very high and the effects of social distancing restrictions vary widely between sectors and regions. This raises important questions about the speed with which temporary support measures are withdrawn and for whom. One promising avenue may be to link the degree of JR support more directly to developments in the health situation and economic activity. Most countries are already making use of dashboards to monitor the health and economic situation and these could be used to inform policy on JR support. As long as social distancing restrictions remain significant, the health situation could be used as

the main determinant for the degree of support, possibly on a regional basis. Meanwhile, information on sales could be used to decide the level of support for individual sectors or firms. Once social distancing restrictions have been withdrawn, the strength of the economic recovery could determine the extent to which prolonged support is provided. The generosity of JR support to firms and workers could therefore be adjusted gradually, based on developments in the health and economic situation.

Beyond the refinements needed to JR schemes over the near term, an important question is also whether it is necessary to have a permanent scheme in place so that this can be scaled up if necessary, or whether a temporary scheme could simply be introduced when the need arises. As mentioned above, several countries without pre-existing JR schemes have been able to provide timely support to firms and workers, in large part thanks to the use of digital technologies in the application and payment process. While this is clearly positive, it did not come without any costs. To achieve high levels of use, new schemes had to be sufficiently simple and necessarily tended to be somewhat crude. For example, most new short-time work schemes only provided support in the case of a temporary suspension of work, while some temporary wage subsidy schemes only made lump-sum payments. This suggests that there may be a case for having a limited permanent scheme in place that can be scaled up quickly in the context of a major crisis and cut back gradually as economic activity picks up. The nature and scope of such a scheme is likely to vary between countries depending on their preferences and existing institutional settings.

There are several important issues left for future work. The most important is no doubt to provide a more comprehensive ex-post evaluation of the effectiveness of JR schemes in preserving jobs and supporting job creation during the COVID-19 crisis once data become available. A key aspect of such any such evaluation should be to analyse the effectiveness of JR schemes in protecting different types of workers from the risk of job losses, as well as the longer-term career paths. While JR schemes have helped to prevent a surge in unemployment, it is not clear to what extent they have been equally effective in protecting the jobs of different groups of workers. Evidence presented in Chapter 1 suggests that those in high-pay occupations were much likely to keep their jobs, even if their hours were reduced to zero hours, while those in low-pay occupations were more likely to be laid-off. Moreover, despite efforts to open up JR schemes to workers on temporary contracts, concerns remain about the effectiveness of JR schemes to protect workers in such jobs. To some extent these differences in the effectiveness of JR schemes across different groups may be related to their design. For example, co-financing requirements for firms are likely to reinforce such concerns. Empirical evidence on the effectiveness of JR schemes in protecting different groups of workers will help fine-tune their design but also provide a better understanding of their limits and how they should be complemented by other policy tools, including income support schemes.

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Annex 2.A. Additional tables

Annex Table 2.A.1. Job retention schemes in place in May/June 2020

Name, type, duration and source of data on participants

Country	Name of the scheme	Type	Start	End	Source of data on participants	Note
Australia	JobKeeper	WS-P	30 March 2020	31 March 2021	Australian Taxation Office	
Austria	Kurzarbeit	STW-G	Pre-existing	-	Labour Market Service (AMS)	
Belgium	Chômage temporaire	STW-G	Pre-existing	-	Ministry of Employment	
Canada	Canada Emergency Wage Subsidy (CEWS)	WS-P until end June. WS-M from July	15 March 2020	30 June 2021	StatCan	
Chile	Suspensión de contrato – (Ley 21.227 título I) y reducción de jornada (Ley 21.227 título II)	STW-WS	1 April 2020	..	Superintendencia de Pensiones	
Colombia	Formal Employment Support Program – PAEF	WS-P	4 June 2020	31 March 2021	..	
Czech Republic	Targeted employment support programme "Antivirus"	STW-G	1 April 2020	30 April 2021	StatCZE	
Denmark	Work sharing scheme (Arbejdsfordeling)	STW-WS	Pre-existing	-	Danish Business Authority and Jobindstat	
Denmark	Wage compensation scheme (Midlertidig lønkompensation)	STW-F	15 March 2020	31 December 2021		
Estonia	Wage subsidy programme	WS-P	20 March 2020	30 June 2020	Eurostat, Statistics on society and work related to COVID-19	
Finland	Temporary layoff scheme	STW-F	Pre-existing	-	Ministry of employment	
France	Activité partielle	STW-G	Pre-existing	-	Direction de l'animation de la recherche, des études et des statistiques (Dares), Ministry of Labour	
Germany	Kurzarbeit	STW-G	Pre-existing	Pre-existing	Bundesagentur für Arbeit	
Greece	Special purpose compensation	STW-F	14 March 2020	31 December 2020	Hellenic Statistical Authority	
Hungary	Job Protection Wage Subsidy	STW-WS	16 April 2020	31 December 2020	Eurostat, Statistics on society and work related to COVID-19	
Iceland	Reduced employment ratio	STW-WS	15 March 2020	..		No information
Ireland	Short-time work support	STW-WS	Pre-existing	.		Data on participants refer to TWSS/EWSS only
Ireland	Temporary wage subsidy scheme (TWSS) / Employment Wage	WS-P	24 March 2020	TWSS:31 August 2020	Revenue IE	

Country	Name of the scheme	Type	Start	End	Source of data on participants	Note
	Subsidy Scheme (EWSS)			EWSS: 30 June 2021		
Israel	Unemployment benefit during unpaid leave	STW-F	17 March 2020	30 June 2021		No information
Italy	Cassa integrazione (CIGO, CIGS, CID)	STW-G	Pre-existing	-	Istituto nazionale della previdenza sociale (INPS)	
Japan	Employment Adjustment Subsidy	STW-G	Pre-existing	-	Ministry of Health, Labor and Welfare	Stocks estimated as 3 months cumulative flows
Korea	Employment retention subsidy	STW-G	Pre-existing	-	Korean Statisitcal Information Service (Kosis)	
Latvia	Allowance for fully idle employees	STW-F	24 March 2020	31 December 2020	Eurostat, Statistics on society and work related to COVID-19	
Lithuania	Wage subsidies during idle time	STW-G	19 March 2020	When the state of emergency ends	Eurostat, Statistics on society and work related to COVID-19	
Luxembourg	Chômage partiel	STW-G	Pre-existing	-	Comité de conjoncture	
Netherlands	Regulation Short-Time Work	STW-G	Pre-existing (suspended)	-		
Netherlands	Temporary Emergency Measure Bridging Employment (NOW)	WS-M	1 March 2020	30 June 2021	Employee Insurance Implementation Institute (UWV)	Stocks estimated as 3 months cumulative flows
New Zealand	COVID-19 Wage Subsidy and COVID-19 Wage Subsidy Extension	WS-P	27 March 2020	1 September 2020	Ministry of Social Development	
Norway	Temporary lay-off scheme	WS-M	Pre-existing	-	Norwegian Labour and Welfare Administration (NAV)	
Poland	Guaranteed Employee Benefits Fund (GEBF)	WS-M	31 March 2020	..	Eurostat, Statistics on society and work related to COVID-19	
Portugal	Layoff and Simplified layoff	STW-G	Pre-existing	-	Eurostat, Statistics on society and work related to COVID-19	
Portugal	Support for the progressive resumption of activity	WS-M	1 August 2020	31 December 2020		Data on participants refer to the Layoff scheme only
Slovak Republic	First Aid schemes	WS-M	1 April 2020	30 March 2021	Eurostat, Statistics on society and work related to COVID-19	
Slovenia	Part of Anti-Corona Law	STW-F	13 March 2020	30 June 2021	Eurostat, Statistics on society and work related to COVID-19	
Spain	Expediente de regulación temporal de empleo (ERTE)	STW-G	Pre-existing	-	Ministerio de Inclusión, Seguridad Social y Migraciones	
Sweden	Short-time work (Korttidsarbete)	STW-WS	Pre-existing	-		

Country	Name of the scheme	Type	Start	End	Source of data on participants	Note
					Swedish Agency for Economic and Regional Growth	
Switzerland	Indemnité en cas de réduction de l'horaire de travail / Kurzarbeitsentschädigung	STW-G	Pre-existing	-	SECO – Amstat	
Turkey	Short-time Working Benefit	STW-G	Pre-existing	-	ISKUR	
United Kingdom	Coronavirus Job Retention Scheme	STW-F	20 March 2020	30 September 2021	HMRC coronavirus (COVID-19) statistics	
United States	Short-Time Compensation (STC) programme	STW-WS	Pre-existing	-	Department of Labor	

Note:
STW-G: Short-time work scheme – General or unrestricted (no significant limits on the reduction in working time)
STW-F: Short-time work scheme – Furlough (no partial reductions in working time allowed).
STW-WS: Short-time work scheme – Work-sharing (significant limits on the maximum reduction in working time)
WS-P: Wage subsidy scheme – Pure wage subsidy (based on wage bill only)
WS-M: Mixed wage subsidy (based on wage bill and reduction in business activity).
Source: Country answers to OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes.

Annex Table 2.A.2. Effective cost of hours not worked for workers, firms and the government

For a 100% reduction in hours or a maximum reduction in working time

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Country	Period	Average wage (monthly)	Maximum benefit (monthly)	Replacement rate at the average wage	Cost to employer	Cost to state	Normal social security contributions payed by employer	Social security contributions payed by employer during COVID	Social security contributions payed by state during COVID	Effective cost to worker	Effective cost to employer	Effective cost to state	Cost due to reduced social security contribution
		National currency	National currency	% average wage	% average wage	% average wage	% average wage	% average wage	% average wage	% normal labour cost	% normal labour cost	% normal labour cost	% normal labour cost
										[1-(3)]/[(1+(6)]	[(4)+(7)]/[1+(6)]	[(5)+(8)]/[1+(6)]	1-(9)-(10)-(11)
Australia	May-20	7 319	3 000	41%	0%	41%	15%	0%	0%	51%	0%	36%	13%
	Jan-21	7 319	2 000	27%	0%	27%	15%	0%	0%	63%	0%	23%	13%
Austria*	May-20	4 034	4 296	80%	0%	80%	28%	0%	28%	16%	0%	84%	0%
	Jan-21	4 034					No change						
Belgium	May-20	4 130	2 100	50%	0%	50%	27%	0%	0%	39%	0%	39%	21%
	Jan-21	4 130					No change						
Canada	May-20	4 591	847 per week	75%	0%	75%	10%	0%	0%	23%	0%	68%	9%
	Jan-21	4 591	595 per week	56%	0%	56%	10%	0%	0%	40%	0%	51%	9%
Chile	May-20	836 920	225 000	25%	0%	25%	0%	0%	0%	75%	0%	25%	0%
	Jan-21	836 920					No change						
Colombia		..	..	..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	..	..	..	..
Czech Republic	May-20	34 063	39 000	100%.	20%.	80%.	34%.	7%.	27%.	0%.	20%.	80%.	0%.
	Jan-21	34 063					No change						
Denmark	May-20	35 658	30 000	100%	25%	75%	0%	0%	0%	0%	25%	75%	0%
	Jan-21	35 658					No change						
Estonia	May-20	1 427	800	50%	11%	39%	34%	0%	34%	37%	8%	55%	0%
	Jan-21	1 427					Ended						
Finland	May-20	3 773		49%	0%	49%	20%	0%	0%	42%	0%	41%	17%
	Jan-21	3 773					No change						

Country	Period	(1) Average wage (monthly)	(2) Maximum benefit (monthly)	(3) Replacement rate at the average wage	(4) Cost to employer	(5) Cost to state	(6) Normal social security contributions payed by employer	(7) Social security contributions payed by employer during COVID	(8) Social security contributions payed by state during COVID	(9) Effective cost to worker	(10) Effective cost to employer	(11) Effective cost to state	(12) Cost due to reduced social security contribution
		National currency	National currency	% average wage	% average wage	% average wage	% average wage	% average wage	% average wage	% normal labour cost	% normal labour cost	% normal labour cost	% normal labour cost
										[1-(3)]/[1+(6)]	[(4)+(7)]/[1+(6)]	[(5)+(8)]/[1+(6)]	1-(9)-(10)-(11)
France	May-20	3 046	4 849	70%	0%	70%	36%	0%	36%	22%	0%	78%	0%
	Jan-21	3 046	4 849	70%	10%	60%	36%	0%	36%	22%	7%	71%	0%
Germany*	May-20	4 349	3 870	60%	0%	60%	20%	0%	20%	33%	0%	67%	0%
	Jan-21	4 349						No change					
Greece*	May-20	1 782	534	30%	0%	30%	25%	0%	25%	56%	0%	44%	0%
	Jan-21	1 782						No change					
Hungary*	May-20	370 845	112 418	60%	0%	60%	20%	0%	20%	33%	0%	67%	0%
	Jan-21	370 845						Ended					
Iceland	May-20	802 249		60%	0%	60%	7%	0%	0%	42%	0%	52%	6%
	Jan-21	802 249						No change					
Ireland*	May-20	4 067	350 per week	37%	0%	37%	11%	0%	0%	57%	0%	34%	10%
	Jan-21	4 067	350 per week	37%	0%	37%	11%	1%	0%	57%	0%	34%	9%
Israel	May-20	13 248		53%	0%	53%	6%	0%	0%	44%	0%	50%	5%
	Jan-21	13 248						No change					
Italy	May-20	2 633	1 199	46%	0%	46%	32%	0%	0%	41%	0%	35%	24%
	Jan-21	2 633						No change					
Japan	May-20	435 706	330 000	60%	20%	40%	15%	9%	6%	35%	25%	40%	0%
	Jan-21	435 706						No change					
Korea	May-20	4 146 188	1 428 900	70%	36%	34%	10%	0%	10%	27%	32%	41%	0%
	Jan-21	4 146 188	1 428 900	70%	36%	34%	10%	0%	10%	27%	32%	41%	0%
Latvia	May-20	1 083	700	65%	0%	65%	24%	0%	24%	29%	0%	71%	0%
	Jan-21	1 083	1 000	70%	24%	46%	24%	0%	24%	24%	19%	57%	0%
Lithuania	May-20	1 199	911	70%	0%	70%	2%	0%	2%	29%	0%	71%	0%
	Jan-21	1 199						No change					
Luxembourg	May-20	5 064	4 284	80%	0%	80%	14%	14%	0%	18%	12%	70%	0%

Country	Period	(1) Average wage (monthly)	(2) Maximum benefit (monthly)	(3) Replacement rate at the average wage	(4) Cost to employer	(5) Cost to state	(6) Normal social security contributions payed by employer	(7) Social security contributions payed by employer during COVID	(8) Social security contributions payed by state during COVID	(9) Effective cost to worker	(10) Effective cost to employer	(11) Effective cost to state	(12) Cost due to reduced social security contribution
		National currency	National currency	% average wage	% average wage	% average wage	% average wage	% average wage	% average wage	% normal labour cost	% normal labour cost	% normal labour cost	% normal labour cost
										[1-(3)]/[(1+(6)]	[(4)+(7)]/[1+(6)]	[(5)+(8)]/[1+(6)]	1-(9)-(10)-(11)
	Jan-21	5 064					No change						
Netherlands	May-20	4 433	9 538	100%	10%	90%	12%	1%	11%	0%	10%	90%	0%
	Jan-21	4 433	9718	100%	15%	85%	12%	2%	10%	0%	15%	85%	0%
New Zealand	May-20	5 182	2 538	49%	0%	49%	0%	0%	0%	51%	0%	49%	0%
	Jan-21	5 182					Ended						
Norway	May-20	51 226	50 000	80%	3%	77%	13%	0%	13%	18%	3%	79%	0%
	Jan-21	51 226	50 000	75%	17%	58%	13%	2%	11%	22%	17%	61%	0%
Poland	May-20	4 945	..	53%	26%	26%	16%	0%	16%	41%	23%	37%	0%
	Jan-21	4 945					No change						
Portugal	May-20	1 566	1905	67%	20%	47%	24%	0%	0%	27%	16%	38%	19%
	Jan-21	1 566					No change						
Spain	May-20	2 295	1 098	48%	0%	48%	30%	0%	30%	40%	0%	60%	0%
	Jan-21	2 295					No change						
Slovak Republic	May-20	1 100	880	80%	0%	80%	30%	30%	0%	15%	23%	61%	0%
	Jan-21	1 100	1100	80%	0%	80%	30%	30%	0%	15%	23%	61%	0%
Slovenia	May-20	1 715	1 754	80%	0%	80%	16%	0%	16%	17%	0%	83%	0%
	Jan-21	1 715					No change						
Sweden	May-20	38 485	37 400	85%	10%	75%	31%	0%	31%	11%	8%	81%	0%
	Jan-21	38 485					No change						
Switzerland	May-20	7 611	9 880	80%	0%	80%	6%	0%	6%	19%	0%	81%	0%
	Jan-21	7 611					No change						
Turkey	May-20	4 885	2 943	60%	0%	60%	18%	0%	8%	34%	0%	57%	9%
	Jan-21	4 885					No change						
United Kingdom	May-20	3 400	2 500	74%	0%	74%	11%	0%	8%	24%	0%	74%	3%
	Jan-21	3 400	2 500	74%	0%	74%	11%	5%	6%	24%	5%	72%	0%

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Country	Period	Average wage (monthly)	Maximum benefit (monthly)	Replacement rate at the average wage	Cost to employer	Cost to state	Normal social security contributions payed by employer	Social security contributions payed by employer during COVID	Social security contributions payed by state during COVID	Effective cost to worker	Effective cost to employer	Effective cost to state	Cost due to reduced social security contribution
		National currency	National currency	% average wage	% average wage	% average wage	% average wage	% average wage	% average wage	% normal labour cost	% normal labour cost	% normal labour cost	% normal labour cost
										[1-(3)]/[(1+(6)]	[(4)+(7)]/[1+(6)]	[(5)+(8)]/[1+(6)]	1-(9)-(10)-(11)
United States	May-20	4 755		123%	0%	123%	8%	8%	0%	-21%	8%	114%	0%
	Jan-21	4 755		78%	0%	78%	8%	8%	0%	20%	8%	72%	0%

Note:

. Information not available.

* Net terms (after taxes and other transfers). Mandatory employer contributions for private insurance are not taken into account (consistent with the OECD methodology of Taxing Wages). If job retention benefits are paid directly to workers it is assumed that firms pay no employer social security contributions over hours not worked. When relevant, it is assumed that the employer do not pay any top-up payment. Data on average wage and normal social security contribution refer to 2019.

Australia: Benefit for two fortnights. Czech Republic: In the event of closure of business due to the Government order. Canada: For a drop in revenue of at least 70%. Chile: payments mainly take the form of withdrawals from individual unemployment accounts. Hungary: the employer social security contribution was 19.5% between 1 January 2018 and 30 June 2019; 17.5% between 1 July 2019 and 30 June 2020; and is 15.5% from July 2020. Norway: for the first 3 month (60 days). Chile, Hungary, Sweden and the United States: for a maximum reduction of working time. Germany and Spain: for a childless worker. Japan and Korea: for big companies. United States: includes weekly lump-sum of USD 600 (USD 300 in January) that was paid irrespective of the reduction in working time to all short-time compensation recipients as part of CARES.

If there are several schemes in the country, the table relates to the primary scheme in May 2020 (Denmark: Wage compensation scheme (Lønkompensation); Greece: Special purpose compensation; Ireland: COVID-19 Wage Subsidy Scheme; Portugal: Layoff Simplificado; the United States: short-time compensation).

Source: Country answers to OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes. Average wages and normal employer social security contribution: OECD Taxing wages database.

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Annex Table 2.A.3. Unemployment benefit gross replacement rates

Percentage of the average wage

	Unemployment benefit before the COVID crisis (2019)	Unemployment benefit (May/June 2020)
Australia	16.5	32.8
Austria*	55.0	55.0
Belgium	42.0	42.0
Canada	53.0	53.0
Czech Republic	48.7	48.7
Denmark	52.9	52.9
Estonia	50.0	50.0
Finland	48.9	48.9
France	57.0	57.0
Germany*	59.5	59.5
Greece*	27.4	27.4
Hungary*	45.3	45.3
Iceland	55.0	55.0
Ireland	21.1	37.3
Israel	53.0	53.0
Italy	48.2	48.2
Japan	42.5	42.5
Korea	48.5	48.5
Latvia	60.0	60.0
Lithuania	49.6	49.6
Luxembourg	80.0	80.0
Netherlands	75.0	75.0
New Zealand	20.5	20.5
Norway	59.0	59.0
Poland	20.6	20.6
Portugal	54.8	54.8
Slovak Republic	50.0	50.0
Slovenia	52.0	52.0
Spain	47.9	47.9
Sweden	51.2	60.0
Switzerland	70.0	70.0
Turkey	40.0	40.0
United Kingdom	15.3	15.3
United States	33.0	87.7

Note: * Net terms (after taxes and other benefits). Unemployment benefit for a single adult with no children and two months of unemployment.
Source: Calculations based on output from the OECD tax-benefit model (version 2.3.0) along with ad-hoc updates based on the Policy Tracker of the Policy Responses to the COVID-19 crisis.

StatLink 📊 https://stat.link/ts18gk

Notes

[1] In the United States, 26 states (accounting for about 70% of the population) operate universal short-time compensation (STC) programmes. However, their use has remained very limited during the COVID-19 crisis due to a variety of design and implementation issues (see footnote 11 for details). To bypass these, the *Paycheck Protection Program* (PPP) was introduced, which provides small and medium-sized businesses with forgivable loans to pay their employees during the COVID-19 crisis (see Box 2.4 for a discussion of its design and effects).

[2] In the United States, where the maximum reduction in working time tends to be capped, another reason may be that this helps ensure that short-time compensation (STC) programmes effectively complement the system of temporary layoffs and unemployment benefits in a context where employers can dismiss workers at will.

[3] The labour cost includes the gross wage and any mandatory employer's contributions to publicly provided social security. Note that in some countries (e.g. Australia, Denmark and Switzerland) employers remain liable for contributions to private insurance, including pensions.

[4] For example, in the case of a worker on the average wage experiencing a 30% reduction in hours worked, labour costs fall by the same proportion in most STW countries, but they decline by 70% in Australia and New Zealand and 100% in Canada (OECD, 2020[1]).

[5] It is not a priori clear who pays for reduced employer social security contributions whilst on reduced working time. It could take the form of lower entitlements for social security (i.e. pensions) for workers, higher future labour taxes for firms or lower tax revenues for the government.

[6] Due to the additional lump-sum payment to workers on short-time compensation as part of CARES, they are actually better off than without the reduction in working time. A similar situation is observed for workers on regular unemployment benefits. However, the difference is more pronounced for those on short-time compensation since the full lump sum is paid irrespective of the reduction in working time (limited to at most 60%).

[7] This is not the case in all countries including Germany. This may be related to the fact that the statutory minimum wage was only introduced relatively recently in 2015.

[8] Moreover, a number of countries impose minimum reductions in working time, which may serve a similar purpose in practice.

[9] The only country that excludes temporary workers is the Slovak Republic.

[10] Take-up rates are defined here as a share of all dependent employees rather than only those eligible for support in line with the existing literature on JR schemes.

[11] The low use of short-time compensation (STC) in the United States is not just related to the presence of limits on the maximum reduction in working time, but also administrative bottlenecks, lack of employer awareness, and weak financial incentives for employers (employers are liable for their part of social-security contributions for hours not worked). In addition, to STC the United States also operated specific JR programmes targeted at small firms such as the Paycheck Protection Program and the Employee Retention Tax Credit.

[12] The stringency index measures the strictness of the measures adopted by different governments to contain the pandemic. It is a composite measure based on 9 response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest response). Since these measures impact directly the ability of firms to carry out their activities and consumers' ability to buy goods and services, they certainly provide a meaningful indication of the intensity of the shock for different economies. However, the overall impact on the economy of a given level of stringency in lockdowns may vary across countries because of both non-compliance and voluntary changes in behaviour. Variations in GDP are likely to reflect these latter factors more closely, but they are also likely to be affected by the use of JR schemes. For example, higher take-up of JR schemes might support consumption, but also enable some firms to continue to operate.

[13] Despite their high share in the take-up of JR support, joblessness also increased significantly for this group – see Chapter 1.

[14] This represents a significant change from earlier times when men accounted for a significant majority of those on STW. For example, over 2018-19, about 80% of STW recipients in Italy were men, while women accounted for more than 50% of the recipients during the COVID-19 crisis. The increased representation of women reflects the extension of the scheme beyond manufacturing as well as the particular nature of the crisis that has hit more heavily sectors that employ larger proportions of women. Similarly, data from Belgium also show a clear increase in the proportion of workers on STW who are women, rising from 20% in 2019 to over 40% in 2020 (ONEM/RVA, 2020[44]).

[15] Data from the United States are included in this analysis as they provide a useful reference point for changes in the number of jobs in the absence of widespread use of JR support. The results are qualitatively similar if the United States is excluded from the analysis. See Chapter 1 for a broader discussion of the issues arising from differences in the statistical treatment of workers on temporary lay-off or JR support by different countries.

[16] Given the difficulty of controlling in a comprehensive way for the size and nature of the shock, pre-existing policies and institutions and other policy measures taken in response to the COVID-19 crisis, there are limits to what one could conceivably achieve using country level data at this point in time. More granular data are likely to be better suited to isolate the role of JR schemes in the present context. This is left for future work when such data will become available.

[17] This analysis is limited to Q2 and Q3 and 2020 when the crisis was broadly synchronised across the OECD countries and the vast majority of countries made significant use of job retention schemes – generating the significant variation over time that is exploited in the analysis. The pairwise correlations for Q4 are weaker. This is likely due to the fact that, as discussed in Section 2.2, the health and economic situation and social distancing restrictions was much more varied across countries, weakening the pairwise correlations with the use of JR schemes. In order to include Q4 a multivariate regression framework would have to be adopted that accounts for the nature of the shock and the policy response.

[18] The considerably weaker association between average hours worked and the use of JR schemes in countries with wage subsidies is notable (e.g. Canada, Estonia, Ireland, the Netherlands).

[19] Taken at face value, these estimates imply an efficiency loss of over two-thirds. To put this in perspective, Hijzen and Venn (2011[4]) found that an efficiency loss of one-third in relation to the use of STW schemes during the global financial crisis.

[20] Concerns regarding the impact of JR support on employment reallocation rest on the underlying assumption that workers who are placed on these schemes have a low probability of moving to a new job

voluntarily. Currently, however, very little is known on the job search and switching behaviour of workers on JR schemes in general and in particular during the COVID-19 crisis. Survey evidence from the United Kingdom indicates that furloughed workers are pessimistic about the prospects of their jobs and that as many as 40% of them are either looking for a job or expect to do so in the coming months (Cominetti et al., 2021[43]; Adams-Prassl et al., 2020[38]). If these results apply more broadly beyond the United Kingdom, job retention schemes might hinder job mobility and therefore reallocation less than it is commonly assumed.

[21] For an analysis of bankruptcies for France, Italy and the United States see respectively Cross, Epaulard and Martin , Viviano (2020[47]) and Gourinchas et al. (2020[40]).

[22] Back-on-the-envelope calculations based on the cumulative shortfall in unemployment inflows until 2020 Q3 relative to historical patterns suggest that the number of "missing layoffs" since the start of COVID-19 remains modest relative to the number of normal layoffs in countries that relied heavily on JR schemes. A limitation of this calculation is that the number of unemployment inflows is underestimated due to people leaving the labour force. This, however, would lead to an overestimate of the number of missing layoffs and therefore does not affect the conclusion that the number of missing layoffs was small.

[23] Drawing on a firm-level survey of business expectations in the United States, Barrero et al. (2020[39]) suggest that the speed of job reallocation is expected double and that about 40% of layoffs are likely to be permanent, meaning that these jobs are not expected to come back in the recovery.

[24] Since unemployed persons on temporary layoff in the United States often do not actively search for another job, but instead wait to be recalled in their previous job, these should not be counted as unemployed jobseekers and therefore a Beveridge Curve excluding them is also documented, following Forsythe et al. (2020[45]).

[25] However, the initial decline in job vacancies is also likely to partly reflect weak labour supply as firms suppress job vacancies due to the difficulty of finding suitable candidates in a context where job search is severely limited due to restrictions on movement (Forsythe et al., 2020[45]). Google trends data suggest that, during the early phase of the crisis, aggregate job search activity was initially sharply down, although it has largely returned to pre-crisis levels and its cross-country heterogeneity does not appear related to the take-up of job retention support (Chapter 1). While depressed job search is likely to have contributed to the initial decline in job vacancies, it may be less relevant for explaining the continued weakness in job vacancies.

[26] An indication of the possible consequences of a cliff-edge end to support comes from UK redundancies, which shoot up to 400k in the fall of 2020 (against a normal level of 100k) as employers expected the Job Retention Scheme to end (https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/redundancies/timeseries/beao/lms).

[27] The need for regular re-assessments may explain in part why short-time work had only a limited impact on reallocation in Switzerland in the aftermath of the global financial crisis (Kopp and Siegenthaler, 2019[36]).

[28] This measure was temporarily suspended during the second lockdown from October 2020 to December 2020.

[29] This would be similar to experience-rating employer social-security contributions, i.e. making future contributions dependent on firms' use of short-time work subsidies during the crisis, but would be simpler to implement.

[30] In Switzerland, where there is no co-financing, no such pattern is observed (Box 2.3).

[31] An alternative option may be to impose minimum work requirements for employees on JR support instead of co-financing (Cominetti et al., 2021[43]). This approach can help target the scheme to firms that can continue to operate similarly to co-financing, while also providing stronger incentives for resuming activity and work-sharing within firms (rather than encouraging the retention of only some employees). The United Kingdom planned at some point to transform its *Coronavirus Job retention Scheme* into a *Job Support Scheme,* which would have required employees to work at least 20% of hours and setting the contribution of employers for hours not worked to 5% of gross wages, but this was not implemented due to the deteriorating health situation.

[32] For example, the COVID-19 Wage Subsidy scheme that was in operation from March to June 2020 in New Zealand encouraged – but did not legally require – employers to pay 80% of usual earnings, while the subsidy amounted to roughly 30% of average earnings. Employers complying with this recommendation would pay more than 50% of usual earnings when hours were reduced by more than 50%, hence bearing some of the cost of hours not worked.

[33] The difference in terms of total incomes is even larger for workers who combine full pay for hours worked with short-time work benefits for hours not worked.

[34] While generous JR benefits are likely to have played an important role in alleviating financial hardship and supporting consumption, – mitigating the risk that the COVID-19 crisis transformed itself into a full-fledged economic crisis -, this does not explain why JR support should be more generous than unemployment benefits.

[35] Von Audenrode (1994[42]) provides a different argument for more generous STW based on the interaction between the latter and employment protection. According to this argument, workers on STW need to be compensated for not receiving severance pay.

[36] Indeed, some countries have banned layoffs of workers on JR support, or, in the case of Italy, of any workers (Box 2.8).

[37] This requirement was temporarily lifted from October to December 2020 as new government restrictions were introduced in response to the second wave of the virus.

[38] Since 1 January 2021, in addition a special long-duration scheme operates. This scheme entails a co-financing rate of 10% and a cumulative maximum duration of two years. The long-duration scheme is reduced for modest reductions in working time of up to 40% and requires a firm-level agreement with a worker representative.

[39] Italy also introduced a co-financing for firms experiencing a small reduction in revenue (<20%) in 1 September 2020. This was motivated by concerns over abuse (requiring workers to work despite reporting reduced working hours). Most other countries deal with this issue by limiting access to STW by making firm eligibility dependent on having a significant reduction in business activity.

[40] Japan, Korea and the United States operate JR schemes that provide stronger support or exclusively target small and medium-sized firms. The main motivation for this appears to be that are likely to experience more pressing liquidity constraints due to their more limited access to external finance or they are exposed to less favourable financing conditions when they do (Sharpe, 1994[41]; Chodorow-Reich et al., 2020[37]; Faulkender, Jackman and Miran, 2021[15]; Doniger and Kay, 2021[16]). However, it could

also reflect the possibility that the economic activities of small and medium-sized firms have been impacted more strongly by social distancing restrictions.

[41] This sub-section draws on responses from the Joint OECD/EC Questionnaire on Active Labour Market Policy Measures to Mitigate the Rise in (Long-Term) Unemployment (Q4 2020; see Chapter 3) (as well as the OECD Policy Questionnaire on Working Time Regulation and Short-Time Work Schemes (see Chapter 5)).

[42] Beyond promoting permanent transitions a number of countries also allow for temporary transitions while on JR support (see Box 2.9).

[43] However, this is not always the case and a number of countries have temporarily suspended registration requirements (e.g. Belgium, Israel).

[44] Many workers on JR support are likely to have little prior experience with the PES and the kind of support they can provide.

[45] While the evidence on the effects of temporary in-work benefits on work incentives for the unemployed is relatively weak and has sometimes been used to argue for permanent in-work benefits (OECD, 2018[46]), there is no evidence on the effects of temporary in-work benefits for job mobility between firms. Since workers already have a job, and hence a stronger bargaining position compared with those without a job, the risk that prospective employers capture part of the reduction in employee social security contributions may be relatively limited.

[46] Such a requirement existed in Austria and Portugal before COVID-19.