1. Retirement savings and old-age pensions in the time of COVID-19

This chapter assesses the impact of COVID-19 on retirement savings and old-age pensions, and examines the measures put in place in OECD and selected non-OECD countries. The chapter also considers the conditions under which pension providers may invest the savings earmarked for retirement to support the economy, taking into account their fiduciary duty to invest in the best interest of members. The chapter provides policy guidelines to assist countries in addressing shocks like COVID-19.

Retirement savings and old-age pensions have suffered a large shock because of COVID-19. There have been business disruptions, a general slowdown in economic activity, soaring unemployment and an initial decrease in the value of assets from falling financial markets. Monetary and fiscal policies have led to even lower interest rates and a surge in deficits and debt. All these have impacted both pay-as-you-go (PAYG) public pensions and funded retirement savings arrangements. Policy makers have responded rapidly to cushion the impact of COVID-19 on workers, employers, retirees and pension providers.

Policy makers should endeavour to implement policy measures that strike a balance between providing short-term relief without creating potential negative long-term consequences, to ensure that retirement savings arrangements and old-age pensions remain sustainable and become more resilient. The COVID-19 crisis has been having a large impact on labour markets, with cascading effects on retirement savings and old-age pensions. On the public pension side, the broadened coverage of job retention schemes and unemployment insurance has generally lowered the transmission of the labour market slump to pension entitlements compared to previous recessions, which will cushion the total impact of this shock on future pensions. However, the newly accumulated debt will likely put pressure on public pension finances, already strained by population ageing. Policy responses in the area of funded retirement savings arrangements were mostly targeted at ensuring their sustainability, with temporary measures to subsidise pension contributions, to avoid locking-in investment losses and to provide flexibility to pension providers. However, some measures may jeopardise the future retirement income adequacy, as they allowed members to pause contributions or withdraw their retirement savings to get short-term relief. Finally, while pension providers can use assets earmarked for retirement to support the economy, safeguards and appropriate investment structures need to be in place to ensure that they continue acting in the best interest of members.

This chapter assesses the impact of COVID-19 on retirement savings and old-age pensions, and examines the measures put in place in OECD and selected non-OECD countries affecting current and future pensioners.[1] It first gives an overview of the impact of COVID-19 on labour markets and of the different income support measures put in place. It then examines the impact of these measures on public pension arrangements, including their consequences on public finances. The chapter then focuses on funded retirement savings arrangements where contributions accumulate and earn returns to finance future retirement income benefits. It discusses the main challenges that COVID-19 poses to retirement savings arrangements, as well as the policy and supervisory responses that different countries have implemented. The chapter continues with an assessment of the potential role that savings earmarked for retirement can play in supporting the economy and the post COVID-19 recovery, while ensuring that pension providers invest them in the best interest of their members. The last section concludes with policy guidelines.

1.1. The COVID-19 induced recession

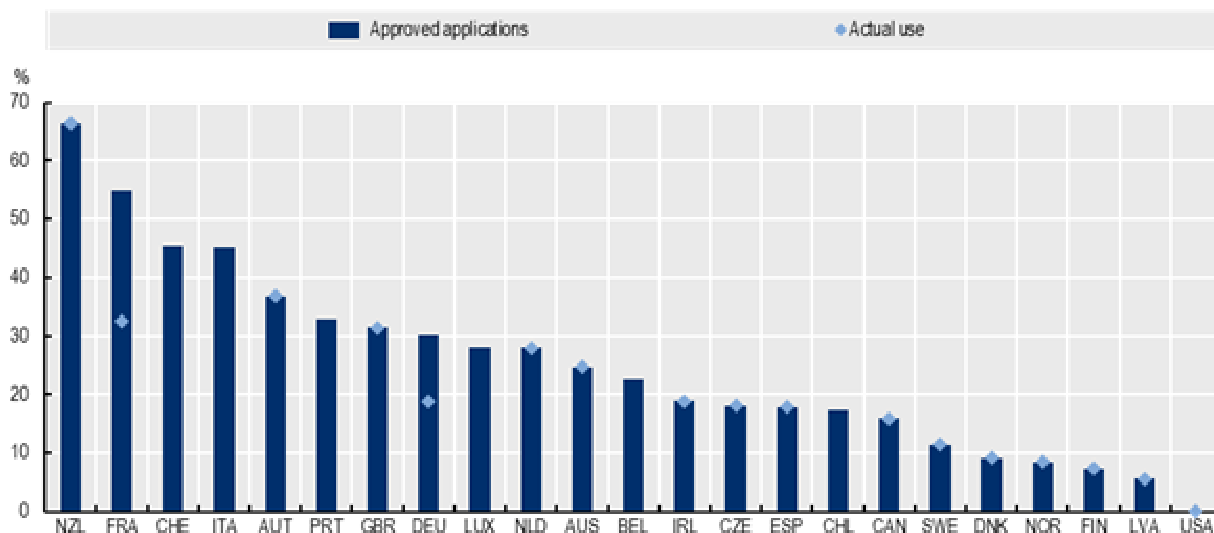
Labour market slump

The COVID-19 pandemic caused a more sudden and pronounced slump in labour markets than the global financial crisis about one decade ago. In order to contain the spread of the virus, governments implemented various confinement measures, including lockdowns. As a result, the economic activity deteriorated abruptly or even stopped in some sectors. On average in the OECD, the unemployment rate rose from 5.3% in January 2020 to 8.8% in April (OECD, 2020[1]; OECD, 2020[2]). While it declined somewhat to 7.3% in September, it has increased again in the fourth quarter of this year as some countries' emergency support policies have expired and the second pandemic wave has led to further layoffs and business financial difficulties. In general, economies are projected to recover over time, but unemployment rates are projected to remain elevated at around 7% in both 2021 and 2022 (OECD, 2020[3]). Low-income workers, women and workers in non-standard jobs have been particularly affected.

The labour market collapse has extended well beyond soaring unemployment rates for two reasons. First, sharply increasing unemployment rates do not account for the widespread use of job-retention schemes (JRS), which keep workers in their jobs through subsidising their wages partially or fully. Second, labour market participation has fallen as many jobless people have not been able to effectively look for work and have been freed from job search requirements to receive unemployment benefits, thus not being recorded as unemployed according to the ILO definition. For example, job-retention subsidies were claimed for more than one-fifth of dependent employees in many European countries, Australia and New Zealand (Figure 1.1).

Figure 1.1. Participation in job-retention schemes has been massive in some countries

Approved applications and actual participants in job retention schemes as a share of employees, May 2020



Source: Figure 1.8 in OECD (2020[2]), and information provided by Chile (for July 2020).

Income support measures for workers

In response to the lockdowns of the economy in 2020, access to JRS, many of which were introduced or expanded during the 2008 global financial crisis, was often facilitated further. This has resulted in their use on an unprecedented scale. Indeed, 19 of the 22 OECD countries that had such schemes before 2020 extended their coverage, simplified their access or increased their generosity.[2] Moreover, 15 countries introduced new JRS in 2020 (OECD, 2020[2]). Additionally, the United States does not provide nationwide JRS but 26 states offer such programmes at the regional level.

JRS include temporary layoff schemes or short-time work (STW) schemes, such as *Kurzarbeit* in Germany or *Activité partielle* in France. JRS can take the form of wage-subsidy schemes that subsidise hours worked or earnings top-ups for workers on reduced hours such as the Dutch Emergency Bridging Measure or the JobKeeper Payment in Australia. To participate in these schemes, companies generally must have faced revenue losses and, in some countries, they must commit to preserve employment or wages for some time after participating in the schemes.

The exceptional policy response during the COVID-19 crisis has not been limited to JRS. Two-thirds of OECD countries eased or broadened the access to unemployment benefits. Sixteen countries have reduced or entirely waived minimum contribution requirements to unemployment insurance, or have granted unemployment insurance to new groups of workers. In particular, the United States has expanded

the coverage of unemployment benefits to the self-employed and Finland has broadened the coverage of the already existing scheme for the self-employed. Canada introduced a new benefit, exempted from social contributions, for all who lost their income due to COVID-19 from March to September 2020. The newly introduced benefit has temporarily replaced the unemployment insurance benefits for many workers as it was more generous. New Zealand introduced a new temporary benefit, between March and October, paid for up to three months to employees who lost their jobs and the self-employed who stopped their activity. In addition, 12 countries have extended the duration of unemployment benefits and 10 have raised benefit amounts.

Some countries have provided temporary and targeted cash transfers to the self-employed. These transfers often depend on previous earnings or income losses during the crisis, as for example in Austria, Chile, Denmark, Ireland, Iceland, Latvia, Norway, Portugal, Switzerland and the United Kingdom. In Chile for example, the self-employed have received benefits amounting up to 70% of the drop in their monthly income for up to 3 months. In Denmark, self-employed workers experiencing an income loss of more than 30% have received a cash support amounting to 75% of the loss for up to 3 months. Iceland introduced a subsidy of 80% of average earnings benefiting the self-employed for 3 months. In Portugal, the self-employed who suspended their business activity or experienced an income loss of more than 40% have received a subsidy compensating their income loss. Belgium, Canada, Colombia, the Czech Republic, France, Greece, Italy, Israel, Korea, Lithuania, the Netherlands, Spain and Slovenia introduced flat-rate payments or lump-sum transfers. For example, Italy provided compensation of EUR 600 in March and April, and of EUR 1 000 in May to the self-employed. Lithuania has subsidised the self-employed through an allowance of EUR 257 a month. In Spain, half of the self-employed have been granted a new benefit at EUR 660 or more.

Finally, Japan, Korea and the United States introduced new temporary benefits to the majority of the population, including workers. While the transfers have been universal in Japan and Korea, the United States has excluded individuals earning more than USD 75 000 a year (135% of the average wage). Another 14 countries have extended the coverage of means-tested income support programmes, including through relaxing or removing asset tests. Overall, labour market and social policy responses have been faster and bolder than during the previous crisis.

1.2. Public pensions in the time of COVID-19

Support measures and public pension entitlements

Career breaks and pensions before the COVID-19 crisis

Pension systems cushion the impact of career breaks on pension entitlements. Residency-based basic pensions and old-age safety-net benefits provide floors to old-age income that are unrelated to earnings history. In addition, earnings-related schemes often grant pension credits for unemployment spells, mostly conditional on receiving unemployment benefits, while defined benefit schemes in Austria, France, Portugal, Slovenia and the United States account for earnings from only the last or best years to calculate the reference wage.

It is estimated that average-wage workers recording a five-year unemployment period will have a 6% lower pension from mandatory schemes than full-career workers on average in the OECD. Such breaks lead to pension losses that exceed 10% in pension systems in ten countries (Australia, Chile, Estonia, Iceland, Korea, Latvia, Mexico, Poland, the Slovak Republic and Turkey), which provide none or very limited protection against career breaks (OECD, 2019[4]).

At first glance, the COVID-19 crisis will hopefully be short enough relative to a typical career length such that its impact on pensions is limited. Yet, as highlighted above, the current very high unemployment rates

are expected to remain elevated for several years in many countries and, despite recent policy responses, many workers are likely to face difficulties in accessing unemployment insurance due to a short or fragmented employment record or due to working in non-standard jobs. Additionally, if unemployment remains high for a longer period, the number of long-term unemployed will increase. The long-term unemployed have very limited access to unemployment benefits and often do not accrue any pension entitlements. Moreover, poor labour market opportunities make it difficult to work at older ages. Older workers who lost their jobs might struggle to find another position and be tempted to retire early, leading to a permanent benefit reduction (Feher and Bidegain, 2020[5]). This would be particularly the case in countries that reduce benefits substantially for people retiring before the normal retirement age.

Expanded JRS and public pensions

The expanded coverage of JRS and unemployment benefits during the COVID-19 crisis has provided better employment and labour income protection, and thereby pension protection, compared to during past downturns. This is especially the case for workers who, due to patchy careers or non-standard work, would not have been covered by unemployment benefits. The improved employment-related protection implies that the impact of COVID-19 on individual pension entitlements is likely to be milder than in previous recessions. However, there remains a huge uncertainty about both the length of this cyclical downturn and its structural implications which could affect future pension benefits over the long run.

In most countries, JRS have covered all or a large part of social security contributions, including pension contributions, minimising the impact on pension entitlements. For example, in Canada, pension entitlements will be accruing on the full wage, with the Emergency Wage Subsidy to employers covering up to 75% of wages and the full mandatory employers' pension contributions (i.e. on 100% of wages) to the public defined benefit scheme (Canada Pension Plan and Quebec Pension Plan) until the summer of 2021. Germany has reimbursed employers who have used STW schemes including for total social security contributions related to the lost work hours, resulting in accruing full pension entitlements whereas only half of the contributions were reimbursed during the global financial crisis (OECD, 2020[2]). In Italy, the subsidised part, up to 80%, of wages in STW schemes has not been subject to pension contributions, but pension entitlements have also accrued on full wages.

Slovenia has financed wages and social security contributions for temporarily laid-off workers at 80% of the minimum wage, and pension entitlements have accrued on the subsidised part as well. In March, Spain subsidised social security contributions for workers on STW schemes at 100% for companies with less than 50 employees and at 75% for other companies. These subsidies were gradually reduced to between 70% and 25% of social security contributions between May and September depending on the number of employees and higher subsidies were granted for workers reinstated at the workplace. Under the STW schemes in France, the subsidised income is largely exempt from social contributions and, before June 2020, workers did not accrue pension entitlements in the general scheme for the part of wages that was subsidised, even though the non-subsidised part (corresponding to the time spent working) might have been enough to validate quarters of contributions. According to the June 2020 COVID-19 related law, the subsidised part of wages paid between March and December 2020 will also be accounted for to validate quarters for the computation of future pensions.

Deferring, suspending and subsidising pension contributions beyond JRS

Beyond subsidising wages through JRS, some countries have allowed, under some conditions, the deferral of pension contributions for a few months or have temporarily lowered or removed the penalties for delays on paying contributions: Belgium, the Czech Republic, Estonia, Finland, France, Greece, Italy, Japan, Luxembourg, the Netherlands, Norway, Poland, Portugal, Spain, Switzerland and Turkey. For example, for selected sectors, Italy deferred pension contributions to the public notional defined contribution (NDC) scheme due between February and May 2020; the contributions are to be repaid in instalments in

September 2020 and January 2021. The deferral of contributions should have very little impact on pension entitlements and the finances of pension schemes in Italy, provided that contributions are ultimately paid.

Some countries introduced additional measures to suspend or subsidise pension contributions. Depending on pension rules, the suspension might or might not affect pension entitlements. Defined contribution schemes generally provide a one-to-one link between entitlements and contributions, while in defined benefit schemes missing contributions do not automatically lower entitlements. In Korea, all workers whose income has been reduced due to the pandemic have been exempted from contributions, with no pension rights accruing for these workers. In Japan, individuals can apply for an exemption from contributing to the National Pension (contribution-based basic pension), which results in acquiring only half of accruals, but which can be complemented down the road by paying the missing contributions retroactively.

By contrast, France has subsidised employers' contributions in selected sectors without lowering individual accruals, and Greece has fully subsidised pension contributions for workers who stopped their activity due to the pandemic. Hungary has suspended employees' and employers' pension contributions in sectors affected by the lockdown while entitlements kept accruing fully. Norway reduced social security contributions in May and June 2020 by 4 percentage points without affecting NDC entitlements.

Estonia used the mandatory funded component of the pension system to temporarily lower contributions or to improve public pension revenues. In Estonia, the mandatory employer's contributions of 4% financing the private funded DC scheme are being temporarily retained in the public scheme from July 2020 to August 2021. The value of past contributions uprated by the average return of all DC funds will be transferred to the funded DC individual accounts in 2023-24 except for employees who use a newly introduced possibility to temporarily opt out from the funded DC scheme for the period from December 2020 to August 2021. In the latter case, employees do not pay their DC contributions of 2% thereby increasing net wages, while the 4% employers' contributions will remain in the public scheme and be used to purchase pension points. Finland has lowered mandatory pension contributions for the remainder of 2020 by 2.6 percentage points. The reduction will be financed by the buffer fund, which is supposed to be replenished by 2025 through higher contributions after 2021.

Pensions and new income support measures for the self-employed

In normal times already, the self-employed tend to pay less pension contributions and to be less protected against old-age risks than employees. After a full career, self-employed workers can expect pensions from mandatory and quasi-mandatory schemes to be about one-fifth lower than those of employees with similar earnings, on average across the OECD (OECD, 2019[4]). The self-employed are required to contribute to mandatory earnings-related pensions in a similar way as employees in only 10 OECD countries. In another 18 countries, self-employed workers are mandatorily covered by earnings-related schemes, but they are allowed to contribute less than employees through reduced contribution rates or discretion in setting their income base, or when they have low income. In addition, they are less protected during career breaks because of more limited access to unemployment benefits.

The COVID-19 crisis hit especially strongly sectors such as culture, event management, personal services and tourism, where many workers are self-employed. The self-employed cannot benefit from JRS and some countries introduced separate income support measures for this group. In contrast to wage subsidies for employees covered by JRS, the benefits granted to the self-employed have generally been exempted from taxes and social security contributions; consequently, public pension entitlements have not accrued on these benefits. This is the case, for example, in Belgium, Italy, Lithuania, and Poland. However, for the entrepreneurs and the self-employed, the already existing coverage of unemployment benefits was further expanded in Finland, where unemployment benefits accrue pension rights.

In addition, some countries have deferred, subsidised or suspended social security contributions for the self-employed while pension entitlements have kept accruing. For example, Portugal has allowed the deferral of two-thirds of pension contributions due in April through June for up to six months without

harming pension entitlements. In Belgium, the self-employed were made eligible for a deferral, reduction or exemption of pension contributions, none of which have affected pension entitlements. Additionally, newly-introduced flat-rate benefits have neither been subject to pension contributions nor accrued entitlements. Greece has fully subsidised the pension contributions of the self-employed (as for employees) who stopped their activity due to the pandemic. In Slovenia, the self-employed who have been affected by the crisis have been exempted from paying contributions while continuing to accrue pension entitlements. Spain exempted the self-employed whose revenues dropped by at least 75% from pension contributions. However, Poland has exempted the self-employed and employees of small enterprises from pension contributions for a few months, resulting in no accrued entitlements in the public pension scheme (NDC) during the exemption phase.

Workers retiring during the crisis and current pensioners

Retirees generally suffer lower income losses during economic downturns than the working population. Hence, their relative income situation tends to temporarily improve. While employment drops and wage growth is subdued, pensions in payment are more protected as they are often linked only partially (or not at all) to wages and as floors to indexation might prevent negative adjustments. For example, in France, the relative income of retirees compared to that of the general population would increase from 105% to 110% in 2020 (COR, 2020[6]).

In a few countries, some measures have supported retirees, especially those with low income. In some specific circumstances, their cost of living might have increased due to limited opportunities for more affordable shopping during the confinement. Some of them might have also lost earnings opportunities, for example when combining part-time or casual work with retirement. Australia provided up to two additional payments to eligible beneficiaries of the means-tested Age Pension of AUD 750, which is around 3% of the maximal annual amount of the Age Pension. Canada granted a one-off allowance of CAD 300 to pensioners receiving the basic pension (Old Age Security) and an additional CAD 200 to those with the lowest income who therefore receive the Guaranteed Income Supplement; the total allowance at CAD 500 is about 10% of the average monthly disposable income among the 65+. New Zealand doubled the Winter Energy Payment benefit paid to all pensioners between May and October at NZD 20.45 per week, representing 4% of the basic pension. Slovenia introduced a so-called solidarity bonus to increase the lowest pensions. Israel granted a special allowance, up to NIS 4 000 a month - about 40% of the average monthly disposable income among the 65+ - to laid-off workers who are older than 67.

Some countries went beyond temporary measures. Australia relaxed the Age Pension asset test permanently by reducing the withdrawal rate, resulting in an average increase in benefits of AUD 313 a year – which equates to around 1% of the maximal annual amount of Age Pension (ISSA, 2020[7]). As of June 2020, Hungary permanently exempted those combining pensions with self-employment from paying social security contributions. Turkey increased the lowest level of minimum pension by 50% to TRY 1 500, which is almost equal to the average monthly disposable income among the 65+, on top of anticipating by one month the payment of the holiday bonus to retirees, which is a benefit paid twice a year in addition to monthly pensions.

In contrast to retirees who retired some time ago, those retiring during or shortly after a crisis might face a permanent benefit reduction. The calculation of the initial public pension in earnings-related schemes is often linked to the labour market situation at the time of retirement through the valorisation of past wages, point values or notional accounts, depending on the scheme design. When pension payments are indexed to wages, benefit levels catch up in line with earnings during the economic recovery. However, a majority of OECD countries do not fully index to wages, and short-term shocks can durably lower the benefits of those who are unlucky to retire in bad times.

To mitigate this effect, some schemes had included mechanisms to smooth valorisation or prevent reductions. For example, after the global financial crisis, Latvia and Sweden provided an additional

mechanism to their NDC schemes to cushion the fall in notional account values when labour and capital markets deteriorate abruptly. Similarly, the Canadian public earnings-related pension scheme (CPP and QPP) uses a 5-year average of pensionable earnings as a revaluation benchmark since 1998. In April 2020, Poland introduced a floor to the valorisation of notional accounts that prevents them from falling below the May level during the annual revalorisation in June. Yet, not all public pension schemes include smoothing mechanisms. In the United States, the substantial decrease of wages in 2020 is expected to permanently lower the reference wage, and thereby the public pension benefits, for those turning 60 during the crisis by as much as 13% in the worst-case scenario. These retirees will not benefit from the economic recovery because past wages are not valorised any more to wages after age 60 and pensions in payment are only price-indexed (Biggs, 2020[8]).[3]

The COVID-19 crisis and public pension finances

Sharp deterioration of pension finances in the short term

Public pension finances deteriorate during economic downturns. Indeed, low economic growth usually reduces revenues of public pension schemes much more than expenditures. In 2020, the deterioration of the labour market has been dramatic while the options to defer or suspend contributions have been widespread. For the United States, the financial balance of Social Security as a percentage of the wage bill was projected in May 2020 to worsen by between 1.5 and 2.5 percentage points in 2020, depending on the recession depth compared to previous projections based on the non-governmental Penn Wharton Budget Model (Shin and He, 2020[9]). For France, it was estimated in October 2020 that, compared to 2019, pension expenditure would be higher by 0.2% in nominal terms in 2020, translating into a significant increase from 13.6% to 15.2% of GDP based on a 10% decline in GDP (COR, 2020[6]). As revenues were projected to shrink by 9.5% in nominal terms, the deficit of all pension schemes combined would increase from 0.1% to 1.1% of GDP in 2020. In Poland, public pension expenditure dropped by 1% while total contributions dropped by 6% in the first half of 2020 compared to the first half of 2019 (ZUS, 2020[10]).

In many countries, the central government budget finances deficits in public pension schemes. Some public pension systems include buffer funds. Such funds can be used to accumulate surpluses during economic booms to cover deficits during recessions. For many public schemes, the only or main buffer is the central government budget, and pension deficits during recessions increase the public debt. Subsidising pension contributions during the COVID-19 crisis has additionally shifted the financial pressure from pension schemes to central government budgets.

Due to generous counter-cyclical policies and the projected shrinkage of GDP, the fiscal deficit is projected to sharply increase in the OECD as a whole from 3.0% of GDP in 2019 to around 11.5% in 2020. It is, however, expected to come back down to 8.5% in 2021 and to 5.9% in 2022, though this level is still higher than that of 2019 (OECD, 2020[3]). Newly accumulated debt will add to the public finance pressure triggered by population ageing over the long term. Moreover, while in the short-to-medium term interest rates are likely to remain low, thereby reducing the cost of financing public debt, the associated prospects of low financial returns, at least on fixed-income assets, might weigh on the value of pension reserve funds.

Limited expected impact of excess mortality on pension spending

The heath deterioration of those infected is at the core of the COVID-19 crisis. The pandemic is causing enormous human suffering and the fatality number has exceeded one million worldwide. As for pension finances, higher mortality rates, especially among older people, will lower the average length of pension payments compared with what was expected before COVID-19. The ultimate impact on the number of deaths and on shortening the life of the different cohorts remains, however, subject to a large uncertainty[4] and it might differ a lot across countries.

The excess mortality, i.e. the number of deaths above the seasonally adjusted long-term trend (baseline), is a sound measure of the impact of COVID-19 on total mortality. The EuroMOMO project (EuroMOMO, 2020[11]) monitors the excess mortality in 24 European countries. From January to end of September, the number of excess deaths in 24 countries stood at almost 220 000 compared to 69 000 in 2019 over the same months. In 2017 and 2018 the excess mortality exceeded 100 000 in the winter seasons which is largely attributed to flu outbreaks (Nielsen et al., 2019[12]).[5] This implies that excess deaths increased the mortality rate by about 6% in 2020 compared to 2019,[6] but this estimate is subject to large revisions depending on the future developments of the pandemic.[7]

The excess mortality due to COVID-19 observed so far has lowered the expected pension liabilities only slightly and will therefore reduce pension expenditure only slightly over the longer term. A 6% higher mortality, for example, would result in a roughly 0.2% lower number of people aged 65 or older at the end of 2020 and have a similar impact on pension expenditure in 2020.[8] Assuming that public pension spending equals 8% of GDP (the average among OECD countries), a 0.2% decrease in spending equals 0.016% of GDP. For France, COR estimated that the excess mortality would lower the number of retirees by around 0.15% and pension expenditures by 0.20% in 2020 (COR, 2020[13]). Moreover, this effect on pension expenditure might fade away quite quickly in most countries because the excess deaths in 2020 have been skewed towards older people[9] and those dying due to COVID-19 are likely to have had, before the COVID-19 crisis, a lower life expectancy than individuals of the same age or birth cohort (Cairns et al., 2020[14]). However, long-term health effects among the recovered may shorten their life expectancy as some patients show lingering symptoms and some organs such as heart, lungs or brain can be harmed by the virus (WHO, 2020[15]), while the future development of the pandemic is subject to a large uncertainty.

1.3. Challenges facing retirement savings in the time of COVID-19

COVID-19, lockdowns, and the related economic recession have multiple impacts on retirement savings, retirement savings schemes, providers, regulators and supervisors. These impacts could lead to lower incomes in retirement and important dysfunctions in the market. The main impacts identified are:

- A fall in the value of assets in retirement savings accounts from falling financial markets;
- An increase in liabilities from falling interest rates in retirement savings arrangements with retirement income promises (e.g. DB retirement plans, and life annuity arrangements);
- A lower capability to contribute to retirement savings plans from individuals, as they see their wages reduced or lose their jobs, and from employers suffering financial distress;
- Operational disruptions as a result of working remotely;
- Cyber-attacks, frauds and scams directed to individuals, regulators, supervisors and providers of retirement savings schemes (e.g. pension funds);
- An inclination for individuals to prioritise immediate needs over their long-term interest;
- Calls on pension providers to invest in local businesses or infrastructure projects, potentially increasing the risk profile of retirement savings portfolios.

Decline in the value of assets in retirement portfolios

The onset of COVID-19 led to a large fall in the value of equities in the first quarter of 2020. Major stock markets suffered setbacks between mid-February and end-March 2020 as governments were taking precautionary health measures to limit the spread of the virus and shutting down parts of the economy.

As a result, the market value of retirement savings accounts suffered a large reduction in the first quarter of 2020. Losses on financial markets lower the amount of assets in pension plans. Forecasts suggest that pension assets would have declined by 10% in the first quarter of 2020 in the OECD area, from USD 49.2

trillion at end-December 2019 to USD 44.3 trillion at end-March 2020 (OECD, 2020[16]). Investment losses were widespread in the first quarter of 2020, although the range of these losses varied greatly across countries and plans.

The tendency may be to sell when the value of assets in a portfolio falls. However, this locks in the losses, and may be far from the best reaction. This issue can be particularly relevant in jurisdictions where members of retirement savings plans can switch to another (more conservative) investment strategy.[10] Opportunities to recoup losses are more limited as the expected return of more conservative investments is lower. Members may also lose an opportunity to benefit from an upturn of capital markets if they withdraw their voluntary retirement savings when markets are low.

Capital markets have recovered in the second and third quarters of 2020 in many countries, and so have assets in retirement savings plans. Preliminary estimations taking on board those positive developments in capital markets and the structure of the portfolios of pension providers at the national level suggest that the value of retirement savings would have recovered their pre-COVID-19 level between Q2 and Q3 2020 if people or pension providers maintain their investment strategies without selling and thus materialising losses (OECD, 2020[16]). Going forward, uncertainties remain high.

Additional pressure on the solvency of retirement savings plans offering a benefit promise

The shock to financial markets in the first quarter of 2020 has been a blow for the solvency position of DB plans and for their sponsors. The devaluation of assets following falling stock prices has affected all retirement savings plans. However, DB plans embed a benefit promise that is not necessarily linked to the amount of assets accumulated, but depends on other parameters (such as the length of employment of plan members). The drop in the value of assets in the first quarter of 2020 has therefore been a source of potential mismatch between the assets and the liabilities of DB plans.

While the value of pension assets was falling in the first quarter of 2020, the value of liabilities of DB plans may have increased, creating another source of mismatch between assets and liabilities. When pension providers promise a future benefit level (such as providers of DB plans), they have to discount the value of future pension income payments to express it in today's terms and have an estimate of their liabilities. The lower the discount rate is, the higher is the valuation of liabilities. Some pension providers may use a risk-free rate as a discount rate, such as the long-term government yields (i.e. long-term rates). These long-term rates tend to follow the direction of short-term rates. The COVID-19 outbreak and its economic consequences have already led some central banks to cut interest rates to support the economy in March 2020, such as the Bank of England and the Federal Reserve Bank in the United States.[11] These moves can worsen the solvency of pension providers promising a certain benefit level. Worsening solvency positions may be particularly problematic for pension providers who already had funding shortfalls before 2020.

The funding ratio of DB plans deteriorated in the first quarter of 2020, but has improved since then. Funding ratios declined in the first quarter of 2020 in a number of countries, including Finland, the Netherlands, Switzerland and the United Kingdom (OECD, 2020[16]). However, the recovery of financial markets probably contributed to the improvement of the funding ratio of DB plans in the second and third quarters of 2020. The evolution of the funding position of DB plans is partly tied to the evolution of assets in DB plans and therefore also remains uncertain beyond Q3 2020.

Reduced ability to contribute into retirement savings plans

Some people may face more difficulties in accumulating assets for retirement if they have lost their jobs following the COVID-19 outbreak or seen their hours reduced. Spells of full or partial unemployment could lead to contribution gaps if employees or employers stop contributing to retirement savings plans.

Employers may also face more difficulties in paying wages and contributions to their employees' pension plans while they experience business downturns. Likewise on the employee side, a salary loss or cut may also reduce voluntary contributions, as people may be less likely to contribute voluntarily to retirement savings plans when they are under financial strain. Interruptions or reductions in pension contributions would slow the accrual of pension assets for retirement. Members may also miss the opportunity to benefit from the upturn in capital markets.

The impact of the COVID-19 outbreak on contribution levels is unclear so far. COVID-19 may change consumption and savings behaviours. Dire and uncertain times may divert people from saving for retirement, and some countries indeed reported a decline in contributions to retirement savings plans in the second quarter of 2020 compared to the same period in 2019 (OECD, 2020[17]). However, the confinement period may have led some people to reduce their consumption. One of the largest pension funds in Denmark (PFA) observed extra voluntary contributions from plan members in 2020 amid a consumption fall.

General operational disruptions

COVID-19 has also led to important operational disruptions. Governments introduced preventive health measures (e.g. lockdowns) aimed at limiting physical meetings and encouraging people to stay at home to limit the spread of the virus. These measures have created disruptions in all operations where plan members have to meet staff of their pension providers physically (e.g. to deliver or sign documents in person).

Preventative health measures have also affected the internal operation of pension providers. Staff of pension providers may have had to work remotely to carry out their regular activities (such as collecting and remitting contributions to schemes or individual accounts, investing assets, paying pensions and other benefits). The pandemic may have made it more complicated to apply usual processes involving in-person meetings (e.g. meeting of board members and/or subcommittees).

All these general operational issues could lead to delays in some operations. Providers have had to put in place business continuity plans, adapt their processes and tackle the challenges from the COVID-19 outbreak, on top of their regular duties towards their members and their supervisors (e.g. reporting, actuarial valuation).

Pension supervisors have also faced disruptions because of the COVID-19 outbreak. They too had to carry out operations remotely and favour digital tools to exchange with pension providers and plan members. Some of the activities of pension supervisors, such as on-site inspections, had to be suspended.

Cyber risks, fraud and scams

COVID-19 has bolstered the use of digital tools but may have also exacerbated the threat of cyber-attacks, frauds and scams to pension supervisors, providers and plan members.

The sudden increase in the number of staff from pension supervisory authorities and pension providers working remotely creates unprecedented data privacy and cybersecurity challenges. Scammers may try to take advantage of people teleworking or members using online platforms to conduct cyber-attacks.

Plan members also have to rely more on online platforms and call centres than on physical meetings with their pension providers to manage their plans, which may be subject to fraudulent attacks. Scammers may try to steal and use their personal information.

Scammers may also exploit the fears of members facing financial distress in a context of volatile financial markets. They may offer ways to access their pension savings, ways to transfer their pension assets or rights to another plan, or investment opportunities that are too good to be true. These attacks may deprive members from some of their savings for retirement.

Inclination to prioritise short-term needs over the long-term interests

The economic fallout of COVID-19 may induce individuals to access their retirement savings early to address short-term needs. Countries usually allow plan members to access their retirement savings before retirement under certain exceptional conditions, although financial hardship and unemployment were not the most common conditions for early access to retirement savings in the OECD before COVID-19 (OECD, 2019[4]). Mexico and New Zealand, where early access to retirement has been possible for unemployment and financial hardship, respectively, both recorded larger amount of withdrawals following the COVID-19 outbreak (OECD, 2020[17]).

Early access to the balances accumulated in retirement accounts, even if partial, could jeopardise retirement income adequacy. Income withdrawals from retirement pots may allow people to finance the loss of income resulting from the economic lockdown. However, this could lead to lower balances accumulated at retirement, which would translate into lower income at retirement. The reduction in retirement income resulting from a 10% withdrawal over a year could vary from 2% to 9% depending of the length of the contribution horizon, with older people experiencing a larger impact because they may have accumulated larger balances to withdraw income from.[12] Early access to balances at a time when markets are low can also lead to materialising market losses.

Another way to offset the loss of income is to allow the temporary suspension contributions to retirement plans. Stopping or pausing contributions, contribution holidays, were generally not possible for mandatory retirement schemes pre-COVID-19, while individuals could usually stop their contributions in voluntary personal plans as they wished. In New Zealand, where contribution holidays have been possible for those who have been members of KiwiSaver for 12 months, the number of requests for contribution holidays peaked in April and May 2020 (over 140 000 per month).

Unfortunately, contribution holidays can also easily jeopardise the future adequacy of retirement income. A one-year pause in contributions could lead to a reduction in income at retirement of around 2-3%.[13] While people could recoup this reduction by voluntarily increasing contributions once the economy recovers, evidence from the previous crisis suggests that this generally does not happen as short-term needs prevail over the long-term financial planning. Moreover, people may not have more resources to increase contributions in the future than they had before the crisis.

Additionally, early access to retirement savings and contribution holidays could lead to liquidity management concerns for pension providers. Pension providers have cash and liquid assets in their portfolios to address liquidity demands from regular payments and income withdrawals arising from exceptional circumstances. They also count on contribution inflows to manage liquidity needs. However, contribution holidays can create a negative cash flow. Coupled with larger calls for cash from retirement pots than usual, this can force pension providers to act pro-cyclically by selling assets in falling markets and materialising value losses. Long-term strategies may also be jeopardised.

Calls on pension providers to invest in local projects potentially increasing the risk profile of portfolios

There have been calls on pension providers to use savings earmarked for retirement to address the impact posed by COVID-19 on the economy. Pension providers could play a more active role in the current economic situation as long as the risk-return profile of the corresponding investments is satisfactory. Some sectors have been hit hard by the lockdown and ensuing social distancing measures, such as civil aviation, tourism, and cultural and leisure sectors. Suggestions that pension providers could support companies in these sectors to help cushion the blow from the COVID-19 crisis abound. However, these investments may yield poor returns, as the outlook for some companies may be negative. Indeed, consumers may have changed some of their habits, reducing permanently the demand for certain goods and services. For example, air travel may not go back to pre-pandemic levels, as enhanced video conferencing capabilities

may permanently reduce the need for physical meetings at work. There is a risk that investing in such sectors may deliver poor value for members, or worse than they otherwise would have gotten from other investments. In turn, this could reduce trust in funded retirement savings arrangements.

A fast and strong economic recovery is in the best interest of members, but bailing out ailing companies is not the role of pension providers. The pressure may be particularly strong for industry or sector-wide pension funds to invest in their own industry or sector, as their members can only keep saving for retirement if they remain employed. In addition, a faster economic recovery should lead to a faster recovery of financial markets and therefore of asset values. However, there should be a clear delineation of roles between the government and pension providers. The role of the government is to help businesses keep workers when it is expected that demand for their goods and services will eventually go back to pre-crisis levels, or to help workers retrain so they can take new jobs that are more needed in the post-crisis economy. The role of pension providers is to select investment opportunities that will deliver good risk-adjusted returns to their members to finance their retirement income. The fact that pension providers may face a shrinkage of their membership base because the sector needs to downsize following the crisis should not interfere in their investment decisions.[14]

Channelling more funds into the domestic economy or particular sectors might also increase the risk profile of pension providers' portfolios. It could first reduce the geographical diversification at a time when it could be most valuable. The virus is already affecting regions of the world differently and at different times, allowing lower returns in some regions to be potentially compensated by higher returns in others. Systemic concentration risk may also arise if many pension providers invest in the same sectors or projects due to government/public pressure or herding behaviour. If all or several pension providers of a country invest in the same projects and these projects perform badly, then they will all suffer investment losses at the same time, potentially reducing trust in the pensions industry.

1.4. Policy and supervisory responses affecting retirement savings arrangements

Countries have quickly responded to the challenges arising from COVID-19. Their responses target assistance to different stakeholders in retirement savings schemes, plan members, employers, retirees, and providers of retirement savings plans. Figure 1.2 provides a summary of the six main groups of responses identified that have affected retirement savings schemes. The first five groups all aim at ensuring the resilience of retirement savings arrangements and protecting future retirement income and its adequacy from the consequences of COVID-19. The last group of policy responses focuses on providing short-term relief to individuals or their employers. These policies may protect short-term well-being at a potential cost to future retirement income.

Figure 1.2. Responses to COVID-19 in the area of retirement savings

Response	Countries
Limiting the materialisation of investment losses (e.g. communicating the consequences of switches and withdrawals)	• Australia, Bulgaria, Canada, Chile, Colombia, Germany, Hungary, Latvia, Mexico, New Zealand, Poland, Portugal, Romania, United Kingdom, United States
Securing the solvency of retirement plans and the business of providers (e.g. lengthening recovery periods of underfunded DB plans, encouraging pension providers to withhold paying dividends)	• Canada, Finland, Germany, United Kingdom • Most European countries
Subsidising pension contributions (e.g. providing wage subsidies covering pension contributions)	• Iceland, Netherlands, New Zealand, North Macedonia, Slovak Republic, Sweden, Switzerland, United Kingdom
Addressing operational disruptions (e.g. improving online procedures)	• Most countries
Protecting from scams and cyber attacks (e.g. warning plan members and giving them tips to avoid them)	• Australia, Austria, Belgium, France, Germany, Luxembourg, New Zealand, Slovenia, Sweden, United Kingdom, Gibraltar, Mauritius
Providing short-term relief with potential long-term risks (e.g. facilitating early access to retirement savings)	• Australia, Canada, Chile, Colombia, Belgium, Denmark, Estonia, Finland, France, Greece, Iceland, Israel, Peru, Portugal, Slovak Republic, South Africa, Spain, United Kingdom, United States, Zimbabwe

Protecting members from the materialisation of investment losses

The value of pension assets plummeted when financial markets fell in the first quarter of 2020. However, saving for retirement is a long-term goal, and people with a long-term horizon can likely recoup any losses. Short-term losses only materialise if assets are withdrawn or transferred to a different investment vehicle at a time where markets are at their lowest. Several countries have introduced policies to limit this materialisation of short-term losses and allow time for members to recoup investment losses.

Some countries have protected retirees in drawdown arrangements from the materialisation of investment losses by relaxing drawdown requirements. Meeting drawdown requirements can expose retirees to investment risk if they have to withdraw a minimum amount from their pension plan at a time when markets are low. Australia and Canada have temporarily reduced minimum drawdown amounts, while the United States removed the requirement for retirees to withdraw savings from their DC plans for 2020.

Another approach to protect retirees from downturns in financial markets is to guarantee minimum benefit payments. For example, Colombia required pension funds to transfer the balance of retirees receiving programmed withdrawals to the State Pension Fund (*Colpensiones*) at the end of March 2020, when this balance was not enough to guarantee a lifetime payment of the minimum monthly wage. The State Pension Fund is in charge of paying an allowance worth the minimum monthly wage to these retirees. This transfer protects the level of benefits and limits the investment losses that retirees may bear. However, it may also prevent retirees from benefitting from the recovery of financial markets at a later stage.

Some countries have introduced policies aimed at protecting members close to retirement. People close to retirement may be at a higher risk of suffering short-term investment losses than younger members as they have less time to recoup losses before the beginning of the pay-out phase. This risk is especially acute if they purchase a drawdown product with another provider or shift their assets towards more conservative accounts with the same provider right after a shock on their balances. Canada and Latvia have put in place policies allowing certain plan members close to retirement to postpone the beginning of

the pay-out phase. At the end of March 2020, the Office of the Superintendent of Financial Institutions (OSFI) in Canada announced a temporary freeze on annuity purchases for members of federally regulated DB plans.[15] In Latvia, members of the state funded pension scheme have been given the possibility to postpone their pay-out choice (between purchasing a life annuity and getting a public pension based on their notional and financial capital) until 30 November 2021.

Policies may also protect members' assets during the transition from the accumulation to the pay-out phase. For example, Chile has adopted a rule to transfer pension assets to another account when people start applying for pension payments for their retirement. The amount of assets in the pension plan can vary between the start of an application for a pension payment and the actual moment individuals can receive their benefits. This rule can help individuals close to retirement to maintain the level of pension assets unchanged during the process to get pension payments for retirement and avoid further potential losses on volatile financial markets.

Some countries also tried to avoid members locking in short-term investment losses by transferring assets out of the plans or investing more conservatively at a time when stock markets were low. For instance, the United Kingdom made it possible for trustees to suspend the valuation of rights and the transfer of the corresponding assets from DB plans. This measure intended to protect the interest of plan members in a context where volatile financial markets could change the value of this estimate significantly. It could also protect providers from liquidity issues by limiting the number of transfers. Another measure consisted of designing websites to help members to make investment decisions when faced with volatile financial markets, such as the 'Sorted' website in New Zealand.[16] While members keep the choice to stay with or change their pension providers and investment strategies, the website explains the consequences of doing so.

Finally, some countries have relaxed some quantitative investment rules to avoid situations where pension managers would have to sell assets when markets are low because they unintentionally breached their investment limits. For example, the Federal Financial Supervisory Authority (BaFin) in Germany has temporarily allowed *Pensionskassen* to exceed the 25% investment limit on real estate if the breach happened unintentionally.[17]

Securing the solvency of pension plans and the business of providers

Some countries have been giving leeway to providers of underfunded DB plans to avoid detrimental pro-cyclical effects on the plan and its sponsor. For example, Germany and the United Kingdom have extended the deadline for the submission of recovery plans for underfunded pension plans. In Finland, the Financial Supervisory Authority can extend the deadline for pension insurance institutions to start implementing recovery plans when their solvency capital falls below the required level. This flexibility helps alleviate pressure on the plan sponsor and avoids requesting additional recovery contributions at a time of economic stress, which could have pro-cyclical effects. It may also help to secure the solvency of DB plans over the long-term. After the 2008 crisis, the OECD called for long-term measures to strengthen the solvency of DB plans, such as increases in contributions in better economic times (Antolín and Stewart, 2009[18]).

Many European countries have sought to strengthen the resilience of pension providers by encouraging them to save revenues from 2019. Stock prices rose in 2019, making it a profitable year for some providers. Regulatory authorities in many European countries (such as Austria, the Czech Republic, France, Luxembourg, Norway, Slovenia and Spain) advised the entities they supervised to withhold paying dividends and bonuses to their shareholders from 2019 profits, to improve liquidity, in line with the recommendations of the European Insurance and Occupational Pensions Authority (EIOPA).

Subsidising pension contributions

To help individuals to keep saving for retirement during the crisis, some countries subsidised, at least partially, contributions to retirement savings plans. As COVID-19 and the consequences of precautionary health measures hit the labour market, governments swiftly introduced job-retention schemes (JRS) to protect employers and employees (Section 1.1). In Iceland, the Netherlands, New Zealand, the Slovak Republic, Sweden and the United Kingdom, where employees have to participate or are automatically enrolled into a private pension plan, JRS directly subsidise contributions to private pension plans (at least to some extent).[18] Employers in these six countries have rapidly had the opportunity to request an exceptional subsidy to cover the payments of wages, pension contributions and potentially other staff costs to some extent.

These subsidies may cover either employees temporarily unable to work or employees who continue working, but on reduced hours. The United Kingdom initially only introduced subsidies for employees temporarily unable to work, before extending them to employees who continue working but on reduced hours, from 1 July 2020.[19] The Netherlands and Sweden only introduced subsidies for employees who continue working. Iceland, New Zealand and the Slovak Republic have introduced both types of subsidies.

These subsidies allow the accumulation of pension assets to different extents and in different ways. The Netherlands and the United Kingdom (until the end of July 2020) include a specific top-up in the subsidy to cover pension payments. This top-up corresponds to 40% of the compensation amount for pension contributions (from employers and employees) and other payroll charges in the Netherlands (30% before 1 June 2020), and to the minimum employer pension contribution in the automatic enrolment scheme (3% of qualifying subsidised earnings) in the United Kingdom until the end of July 2020. In Iceland, the Directorate of Labour pays a subsidy to employers, which does not include their mandatory pension contributions, but pays the corresponding 11.5% employer contributions to the pension fund directly under the Reduced Employment Ratio Payments scheme. In the Slovak Republic, the subsidy helps employers to cover part of their wage costs, including their social security contributions from which a part is diverted into a funded pension plan when employees participate in the second pension pillar. In Sweden as well, the government subsidy intends to cover 75% of the employer's costs, including social insurance contributions, after the reduction of working hours of the employees. Finally, in New Zealand, the subsidy simply allows the payment of employees' salary on which their regular (employee) contributions are taken. Employers are expected to pass on the subsidy to their employees by paying them their usual salary if possible, from which employee contributions to KiwiSaver schemes are deducted. The subsidy in New Zealand does not cover employer contributions to KiwiSaver plans, but employers are still expected to pay their matching contributions.

JRS in other countries may indirectly support pension accruals even if they do not subsidise or finance pension contributions directly. For instance, the JobKeeper scheme in Australia does not include superannuation contributions. These contributions are payable by the employer according to the ordinary rules for the usual wages of the employee. It could be argued, however, that this type of scheme indirectly supports pension contributions (even if it does not directly finance them) because employers are obliged to continue to pay their pension contributions for their employees. JRS help employers to keep the workers instead of firing them, thereby continuing the payment of pension contributions.

Alternatively, some countries may encourage employers to use reserves to continue paying contributions. This is the case for instance in Switzerland, where the government does not directly subsidise employers' contributions to mandatory occupational plans, but encourages employers to pay their contributions by tapping into their own contribution reserves.

Addressing operational disruptions

Supervisors have usually adapted their practices and provided guidelines to pension providers to help them deal with the operational challenges stemming from social distancing measures. These guidelines are diverse and touch upon various aspects of the activities of pension providers.

Many European countries have granted flexibility to supervised entities to comply with reporting requirements, following the advice from EIOPA.

A number of pension supervisors have stepped up their monitoring activities. For instance, the Danish Financial Supervisory Authority (FSA) has requested that pension companies report their solvency coverage and carry out a simplified stress test every week from 18 March (inclusive) until further notice. Portugal's Insurance and Pension Funds Supervisory Authority (ASF) has established an extraordinary reporting to collect information on the financial, liquidity and solvency position of pension funds. The ASF is also requesting some quantitative and qualitative indicators related to market conduct.

Some national authorities have authorised pension providers to use alternative processes to enable them to carry out their regular activities and ensure their staff and plan members stay healthy. For example, the Mexican Pension Fund Supervisory Authority (CONSAR) has requested that partial savings withdrawals from pension plans due to unemployment to be completed in a single appointment. This measure aims to prevent plan members from visiting the same premises multiple times to request early withdrawals of their assets. In New Zealand, the Financial Markets Authority (FMA) has provided guidance on alternative steps that pension providers can take to verify whether plan members are entitled to financial hardship withdrawals. Plan members usually have to complete a statutory declaration about their assets and liabilities before an authorised witness and show that they have explored other options to get funding. In the lockdown context, the FMA has recommended that lawyers witness the statutory declaration of the applicant by video. If this is not possible, the pension provider has to use the best alternative to verify the identity of the applicant in these exceptional circumstances. The applicant also has to provide evidence of his (or her) assets and liabilities to the provider and can, as a last resort, communicate this information over the phone if the provider agrees that there is no way to send this information by post or email.

Some supervisors have urged pension funds to strengthen their technological infrastructure. This is the case in Colombia, for example. COVID-19 has indeed boosted the need to use digital tools in the pension industry, as staff of pension providers have had to interact more remotely among themselves, with members and supervisors.

Finally, a number of ongoing processes have been extended to take into account business disruptions while allowing pension providers to focus on pressing issues. This has happened, for instance, in New Zealand, Poland and the United Kingdom. New Zealand has extended the terms of its nine KiwiSaver default providers from 30 June 2021 to 30 November 2021. The selection process of the default providers for a new term has been delayed. In Poland, the introduction of the auto-enrolment programme in companies with 50+ employees has been postponed to later in 2020.[20] In the United Kingdom, the Financial Conduct Authority (FCA) has given extra time to firms to comply with the new rules to engage with members starting their pay-out phase.

Protecting from scams and cyber attacks

National authorities have implemented measures to protect members and pension providers from the risk of scams and cyber-attacks.

Some are disclosing the types of scams that members and pension providers should pay attention to on their website. For example, the Financial Market Authority of Austria lists the types of cyber-attacks against companies on its website (e.g. phishing). In Germany and Sweden, the financial supervisory authority reports cases of customers who received a call from scammers pretending to be calling on behalf of the

authority. The Insurance Commission of Luxembourg publishes the name of former insurance companies that scammers are using to rip people off. The Securities Market Agency of Slovenia warns against ill-intentioned financial advice.

Others have designed dedicated webpages or FAQs to help plan members deal with scams. For example, the Commission for Financial Capabilities is providing financial guidance to people in New Zealand through its 'Sorted' website. This website warns people about scams related to COVID-19, and provides people with tips to avoid traps. The Financial Conduct Authority in the United Kingdom has a specific webpage on scams (ScamSmart). This webpage identifies several types of pension scams, and explains to plan members how they should deal with these scams.

Some countries also rely on and advise trustees to communicate with members about scammers. Scammers may use misinformation to rip off members. Regular and clear communication from safe sources, such as trustees, is therefore key for members to have the ability to detect scams. This approach is used for example in Australia and the United Kingdom.[21]

Providing short-term relief with potential long-term risks

Policy makers have also introduced measures to provide immediate relief to employees and employers, but at a potential long-term cost to retirement outcomes. COVID-19 has created challenges that sometimes require trade-offs. Policies allowing employers and individuals to defer, reduce or stop pension contributions, as well as those allowing individuals to access their retirement savings, imply trade-offs between immediate relief and reduced future retirement income.

Certain countries have allowed employers to defer their pension contributions. For example, Belgium has allowed employers to pay the premiums they owe to the pension provider for their temporarily laid-off employees until 30 September 2020. Such deferred contributions, however, are invested later in capital markets and do not earn a return during the deferral period.

The effect of contribution deferral on the amount of assets accumulated and future retirement income can be mitigated when the late contributor pays interest on these contributions to compensate for the missing investment income. This is the case in Finland for example, where employers can agree with their pension provider to postpone the payment of pension contributions into earnings-related pension plans by three months and will have to pay a 2% interest on these delayed contributions. However, they will not be subject to any penalty on late contributions.

Some countries have also allowed the temporary reduction of contributions to retirement savings plans. In Finland, employer contributions have been lowered by 2.6 percentage points from 1 May 2020 and until the end of 2020. Pension providers can use buffer funds to offset this reduction in contributions to pay current pensions. In Colombia, mandatory contributions to the personal pension system have been reduced from 16% to 3% for April and May 2020. These temporary reduction of pension contributions intend to provide short-term relief to employers and workers, but reduce the amount of assets accumulated for retirement.

Missed contributions can be compensated for later by increases in contributions to minimise the impact on future retirement income. For example, in Finland, employer contributions will increase again between 2022 and 2025 to make up for the missing contributions in 2020 and replenish buffer funds.

The effect on pension asset accrual is expected to be worse when employers or employees are allowed to stop contributing to retirement savings plans. For example, Estonia has suspended employer contributions of 4% of salary to the second pension pillar between 1 July 2020 and 31 August 2021. Employers continue to pay the 4% contributions (as part of their social security contributions), but these contributions are temporarily retained in the public scheme. Members have also been given the possibility to stop their own contributions between 1 December 2020 and 31 August 2021. While the state will put

back the missing 4% employer contributions and a return on these contributions in pension plans in 2023-2024 for every month employees continue to make their 2% contributions between 1 July 2020 and 31 August 2021, this is not the case for those who decide to stop contributing. The plans of these members will get neither the 4% employer contributions, nor the 2% employee contributions.

Some countries are also providing a financial hardship relief by allowing members to access their pension savings before retirement. Pension plans rules may already allow members to withdraw some of their assets under exceptional circumstances (e.g. financial hardship). Following COVID-19, Australia, Chile, France, Iceland, Peru, Portugal, Spain and the United States have lifted penalties or broadened the conditions for members to have access to these savings to overcome the short-term challenges of COVID-19 on individuals' finances. In the case of Australia, Chile and Peru, savings can be withdrawn from mandatory plans, while for the other countries, the measure concerns voluntary savings. Australia and Spain have allowed members of some plans to withdraw assets if they become unemployed. Australia also allows employees experiencing a reduction in working hours (by 20% or more) and self-employed workers experiencing a decline in turnover (of at least 20%) to access their pension savings. France has been providing support specifically to the self-employed by granting them early access to their savings in their *Madelin* contracts or individual PER. Portugal has temporarily extended the legal conditions for early withdrawals of savings in personal retirement savings schemes (PPR) to include situations such as isolation or illness, assistance to family, layoff, unemployment or cessation of activity. The United States permits plans to give DC plan members access to their savings if their spouse, dependents or themselves contract COVID-19 or if they suffer from the financial consequences of COVID-19. Chile and Peru allow early withdrawals from mandatory individual accounts without any condition regarding the situation of plan members. Iceland also allows unconditional access to retirement savings, but only those in voluntary personal plans.

The amount of savings that plan members in these countries can withdraw is usually capped, limiting the effect on future retirement income. The cap is a fixed amount in Australia (AUD 10 000 by the end of June 2020, and another AUD 10 000 from 1 July until 31 December 2020), France (EUR 8 000), Iceland (ISK 12 million), Portugal (EUR 438.81 per month), and the United States (USD 100 000). In Spain, withdrawals cannot exceed the value of wages (respectively net income) that the temporarily laid-off employees (respectively self-employed) would have received if they had been able to continue working. In Chile, plan members can withdraw up to 150 *Unidad de Fomentos* (UFs) (i.e. USD 5 485 at end-September 2020) or 10% of their savings, whichever is lower.[22] In Peru, plan members can withdraw all their savings in their individual accounts only if their account balance is less than PEN 4 300. Otherwise, plan members can withdraw from PEN 4 300 up to PEN 12 900 for the largest pension pots.

Members have accessed their retirement savings early to different extents across countries. Close to 5 million people in Peru (i.e. around two-thirds of members) and 10 million people in Chile (more than 90% of members) have withdrawn savings from their individual accounts as of end-July 2020 and end-September 2020, respectively. According to a survey published in May 2020 in the United States, around 30% of plan members tapped into their retirement savings over the previous 60 days. Australia recorded nearly 4.7 million applications for early withdrawals under exceptional conditions resulting from COVID-19 as of 8 November 2020. In Iceland and Spain, there were around 6 000 applications and more than 37 000 applications for early withdrawals (as of 22 July 2020), respectively.

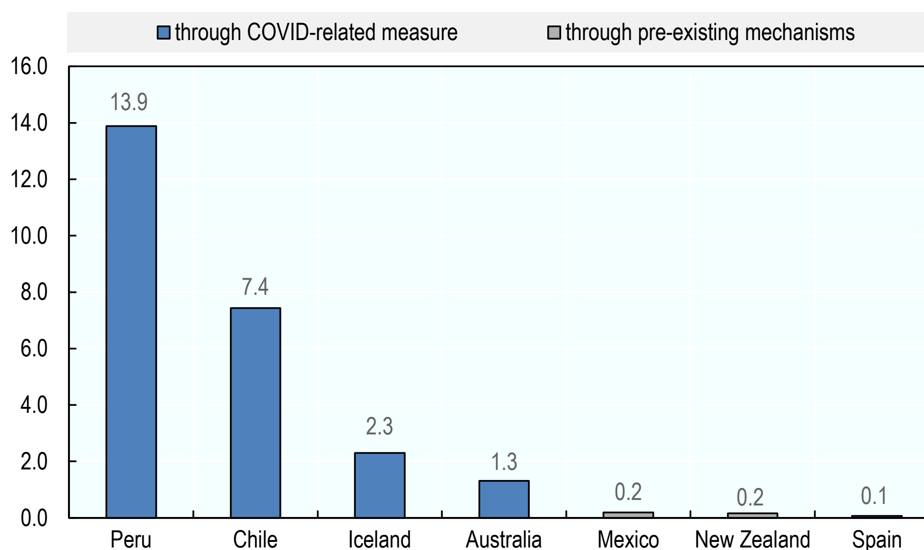
The value of early withdrawals seems to be larger in countries that introduced COVID-19 relief measures, especially when there is no eligibility condition, than in countries relying on mechanisms existing before COVID-19. Figure 1.3, based on a small sample of countries, shows this. Mexico and New Zealand had existing mechanisms to withdraw from their retirement savings accounts in case of hardship circumstances. Early withdrawals due to unemployment in Mexico and financial hardship in New Zealand represented less than 0.2% of all assets in retirement savings plans at the end of 2019. The value of withdrawals (through the Early Release of Super Initiative) was higher in Australia but still only 1.3% of all savings in superannuation schemes as of 8 November. Chile, Iceland and Peru allowed early withdrawals

without any conditions. In Iceland, plan members withdrew 2.3% of assets overall in voluntary personal plans. In Chile and Peru the value of withdrawals was much larger: 7.4% of assets in individual pension accounts by the end of September 2020 in Chile, close to the 10% withdrawal limit established for each plan member, and 13.4% of assets by the end of July 2020 in Peru.[23]

Some countries have also been providing short-term stimuli to employers or employees by facilitating loans or easing restrictions on the amounts that can be borrowed from pension plans. In Finland, employers can borrow the contributions they have paid into earnings-related pension plans (premium loans). To get a loan, employers need a guarantee. The state-owned financing company, Finnvera, can provide guarantees for these loans during the COVID-19 outbreak. In Israel, pension providers can grant loans to members against existing savings. The repayment can be spread in instalments over a longer period (15 years instead of 7). In the United States, the CARES Act has lifted the ceiling on the amount that individuals can borrow from their DC plans from the lower of 50% of the balance and USD 50 000 to the lower of the full balance and USD 100 000. Facilitating access to loans aims to address the liquidity needs of plan members while protecting future retirement income as loans have to be paid back.

Figure 1.3. Value of early withdrawals in selected countries, in 2020

As a percentage of total assets in retirement savings plans at end-2019



Note: Data refer to early withdrawals up to: end-July 2020 for Peru, end-September 2020 for Chile, October 2020 for Iceland, 8 November 2020 for Australia (as part of the Early Release Initiative only), end-June 2020 for Mexico (due to unemployment only), end-August 2020 for New Zealand (for financial hardship reasons only, and expressed as a percentage of assets in KiwiSaver schemes at end-March 2020), end-September 2020 for Spain.
Source: Websites of national authorities, FIAP and Reuters.

1.5. Using assets earmarked for retirement to support the economy

There are calls on assets earmarked for retirement to be used to help fuel a recovery. Pension providers already invest in the economy, mainly through equities and corporate bonds. There is obviously room for investing further in the economic recovery post-COVID-19 as long as the risk of an undue increase in the risk profile of retirement savings portfolios is accounted for and mitigated.

This section presents the safeguards that need to be in place so that pension providers can invest in projects that can support the economy, while ensuring that they act in the best interest of plan members. It also examines the role of policy makers to facilitate the mobilisation of private capital to long-term investment, and the investment vehicles that can allow pension providers to support businesses and gain exposure to investments that aid in the economic recovery.

Safeguards to ensure pension providers act in the best interest of members while supporting the economy

Strong governance and appropriate investment strategies will allow pension providers to invest in projects that can support businesses and fuel a recovery, while ensuring that they act in the best interest of members. The *OECD Core Principles of Private Pension Regulation* provide governments, regulators and supervisors with high-level guidance on the design and operation of funded and private pension systems (OECD, 2016[19]). They aim to strengthen the regulatory framework around funded pensions in order to promote the sound and reliable operation of funded and private pension plans. Core Principle 3 on "Governance" and Core Principle 4 on "Investment and Risk Management" set out the characteristics and behaviours that regulators should encourage in the governance frameworks and investment policies of pension providers, respectively. In particular, ensuring the accountability and suitability of the governing body of pension providers, defining an appropriate investment policy, designing a sound risk management strategy and having appropriate investment regulations can all contribute to safeguard members' assets while financing the recovery.

Accountability and suitability of the governing body

A governing body should be accountable towards members and beneficiaries and should guarantee that investments decisions are at arm's length from governments. Core Principle 3 recommends that every pension provider establishes a governing body to administer the pension fund. The governing body should ultimately be responsible for the protection of the best interest of members. Its fiduciary duty towards members includes prudent and efficient investment of the assets, as well as exercising due diligence in the investment process. The governing body should therefore not bend to government or public pressure to make a particular investment if this is not in the best interest of the members of the pension entity.

Good governance should also ensure that the members of the governing body have the appropriate skills and experience to understand the different products that they may invest in. According to Core Principle 3, members of the governing body should be subject to minimum fit and proper standards and should collectively have the necessary skills and knowledge to oversee all the functions performed by the pension provider, including investment management. In the event that they lack sufficient expertise to assess particularly complex investments such as infrastructure, they should either seek expert advice or reject the investment. In case they seek advice, the governing body should be able to understand the advice, and in any case the governing body keeps ultimate responsibility for the decision of whether or not to invest in the product. These requirements regarding suitability and expert advice should ensure that the governing body only pursues investments that it fully understands.

Well-defined investment policy

Having a well-defined investment policy helps to avoid situations whereby the pension provider would engage in unsuitable investments. According to Core Principle 4, the governing body of a pension provider has to define an investment policy in a written statement. That investment policy should establish clear investment objectives for the pension provider consistent with its retirement income objective and specific attributes (e.g. liabilities, risk appetite of members and the plan sponsor). Among other things, the investment policy should identify the asset allocation strategy for the pension provider. Deviations from the

asset allocation strategy may be tolerated, but the investment policy should clearly identify when and to what extent such deviations may happen.

The investment policy should provide a clear framework regarding investments in non-traditional or less transparent asset classes such as infrastructure, as well as investments in non-regulated markets, such as unlisted securities (Core Principle 4). The investment policy should detail the circumstances under which the pension provider might pursue such investments (e.g. the rationale, investment limits, and vehicles to use). This should be in line with the investment regulations in place as well as the level of expertise of the governing body in the area of alternative investments. If new opportunities arise and can adequately fit in the asset allocation to pursue the investment objective, it would be legitimate to revise the investment policy by including new instruments in the available asset mix, in line with Core Principle 4. For example, the investment policy may not allow infrastructure investment because at the time of setting up the fund, such investments were not available or suitable for the pension provider.

Sound risk management strategy

Existing risk management strategies should already allow pension providers to identify all material investment risks. Core Principle 4 states that the governing body of a pension provider should establish an investment risk management process to support the achievement of the investment objectives. Material investment risks include risks related to movements in interest rates or other market prices, credit risk and liquidity risk. A sound investment risk management strategy should ensure that all the risks related to a particular investment product are considered and assessed before investing in such a product, and that a mechanism is put in place afterwards to control and monitor those risks on an ongoing basis.

Appropriate investment regulations

Investment regulations could guide pension providers' definition of their investment policies, in particular with respect to investments in alternative assets. When legal provisions stipulate maximum levels of investment by category, Core Principle 4 recommends that these provisions address the use of more complex and less transparent asset classes, taking into account their utility and the risks of their inappropriate use. Many countries indeed establish specific limits for non-traditional investments (OECD, 2020[20]).

Investment regulations should also evolve over time to allow pension providers to adapt their investment strategies to new challenges and new products available. In particular, Core Principle 4 warns that quantitative portfolio limits should not inhibit adequate diversification, nor the ability of pension providers to implement optimum investment strategies. They should therefore be regularly assessed and amended as necessary. Especially, investment in alternative asset classes may be gradually relaxed as pension providers improve the skills of their investment teams.

Investment regulation may also include self-investment limits to reduce conflicts of interest and pressures to invest in a particular company or sector. Most countries impose investment limits on securities issues by employers sponsoring occupational pension plans (OECD, 2020[20]). A 5% limit is common when there is a single employer sponsoring the plan, while many countries set a 10% limit when the sponsoring employer belongs to a group. These limits are in line with the recommendations in Core Principle 4. Only Germany, Italy and Slovenia address the case of several employers sponsoring the same plan. Italy has different limits in the case of multi-employer funds and industry-wide funds. This helps to address issues related to potential pressures arising from governments or the public to invest in the sector or industry in which the members of the pension fund work.

Availability of suitable investment opportunities

In addition to ensuring the right regulations are in place, policy makers can facilitate the mobilisation of private capital to long-term investment. In particular, they can set-up public-private partnerships, provide financial incentives and promote special vehicles for investment in alternative assets. Doing so can help make projects available that would suit the investment parameters of pension providers.

Policy makers could encourage greater institutional investment in public projects simply by making regular investment opportunities available, and through transparency and clarity about their long-term strategic policy frameworks. This is in line with Principle 1 of the *G20/OECD High Level Principles of Long-Term Investment Financing by Institutional Investors* (OECD/G20, 2013[21]). A limited pipeline of opportunities can be a hindrance to investment in infrastructure. Furthermore, pension providers need clarity on the government's long-term infrastructure plans to inform their investment strategies. Having national infrastructure plans is one way governments can clarify to investors their political commitment to infrastructure over the long term (Della Croce, 2011[22]).

One key way to attract investors such as pension providers to invest in long-term assets is by setting up public-private partnership (PPP).[24] PPPs are contractual arrangements where the private sector provides public services based on a pre-agreed risk and profit sharing with the public sector, and where the public sector retains planning and control functions (OECD, 2014[23]). Generally, the greater the government's financial contributions to PPPs, the greater the propensity for the private sector to invest.[25] However, excessive risk taking by the public sector may discourage the private sector from carrying out careful risk analysis and risk management, leading to moral hazard and ultimately to lower value for money for the public sector (OECD, 2014[23]). In addition, this can place significant burden on taxpayers. As such, there is a case for public authorities to better weigh the competing considerations and build trust in PPPs.

Public authorities could also take steps to make investments more financially appealing to pension providers while bearing in mind the trade-offs in doing so. Examples of financial support initiatives include:

- The public sector subsidising projects through contributions or grants, whose purpose is either to reduce the private commitment or to increase the return of an otherwise unprofitable project (OECD, 2014[23]).
- The public sector offering guarantees or back-up liquidity facilities to infrastructure creditors to overcome structural problems incurred during its development or to guarantee cases of refinancing risk (OECD, 2014[23]).
- Providing indirect investment to encourage private financing. This can include co-investment with the private sector. The objective of such an agreement is to get a level of return proportional to the risk taken in the project. The co-investment can take the form of equity, subordinated debt, a debt contribution, or indirectly via investment vehicles for infrastructure (OECD, 2014[23]).
- Making debt financing for infrastructure projects more attractive. Examples include through tax incentives for infrastructure bonds or for governments to change the risk profile of investments by providing subordinated debt, thereby boosting a project or portfolio's credit rating (2011[22]).

Finally, public authorities could directly intervene in the market by promoting or providing the seed capital to set up suitable investment instruments or platforms. Governments can provide the seed capital to set up investment funds that make it possible for pension providers to gain exposure to investments. Alternatively, policy makers can also promote greater pooling and collaboration between institutional investors in order to create institutions with sufficient scale. Governments themselves can help set up an investment platform for pension providers to pool their investments. The greater scale that this brings can help investors build the expertise they need to implement a broader investment strategy and undertake better due diligence and risk management. Pension providers can also benefit from collaboration through lower fees, a spreading of risk, and access to investments with longer time horizons. Over time, such

investment can in turn also boost demand for alternative asset investments and encourage better alignment between pension providers and the industry.

Investment vehicles to support the economy

Pension providers can only invest in a way that supports the recovery of the economy if appropriate investment vehicles exist to channel their funds. Some investment vehicles, such as COVID bonds, have emerged precisely to channel funds towards expenditure programmes that address the pandemic's effects. Instruments that provide financing to businesses have also seen increased issuances in response to the crisis. The crisis has also prompted greater interest in long-term investment assets such as infrastructure or real estate, which could play a particularly important role in stimulating the economy to aid in the recovery.[26]

COVID bonds to support programmes addressing the pandemic's effects

COVID bonds have quickly emerged as a leading means of providing financial support to stakeholders in need of immediate financing. Much of the proceeds from COVID bonds have been to help finance the wide-reaching public sector spending programmes to address the impacts of the pandemic. They have also emerged as a way to deliver assistance to businesses that have seen pressures to their existing functions or to transform their operations, and to businesses that may need loans or cash injections to continue to operate. Finally, they can also help businesses to develop new activities in response to additional demand on their activities, like businesses producing medical equipment or doing research. The COVID bonds that have been issued to date aim to meet one or many of these financing needs. All types of issuers in debt capital markets can issue a COVID bond, including supranational entities, governments, the financial sector, and businesses (OECD, 2020[17]).[27]

Financing instruments to help businesses

While COVID bonds can provide indirect support to businesses affected by the pandemic, other financing instruments can act as more direct financing vehicles. Corporate bonds and listed equities typically expose investors to debt and equity financing for larger businesses. Other instruments, such as private equity, securitised SME loans and SME covered bonds also make it possible for investors such as pension funds to provide financing to smaller businesses.

Corporate bonds are standardised securities that finance the balance sheets of corporations (OECD, 2015[24]). Like direct investment in listed equities that are issued by private companies, corporate bonds are a way for companies to access cash during crunch times. Purchasing such bonds is one way pension providers can support the economy, as long as such investments are likely to yield returns and are in line with their investment strategy. Corporate bonds bear the risk of the issuing corporate entity and credit-worthiness is determined by an issuer's general ability to service the debt. Corporate bonds have broad appeal to institutional investors. They tend to have long-term tenors, allowing borrowers to gain access to long-term financing. As such, they are core holdings in most investment portfolios and provide an alternative to lower-yielding government bonds.

Pension providers could help mitigate the impact of the COVID pandemic on businesses by investing in *listed equities* such as those of companies particularly affected by the downturn. The crisis has prompted a number of companies to issue new stock to raise money amid a cash crunch. If purchasing shares in such companies is in line with pension providers' investment strategy, and if they expect returns on the investment, investing in such securities is one way pension providers can support the economy. In recent years, new investment vehicles (e.g. indices, mutual funds, ETFs) have been created for investors not able or willing to make their own investment.

Pension providers could use *private equity* to purchase the illiquid equity securities of operating companies. Such instruments are particularly relevant for SME financing, especially for start-ups, technology-based companies and those with exceptionally high growth prospects. The equity is not publicly traded. In exchange for their capital, private equity firms take ownership stakes in the companies. Private equity investors typically hold these securities for a period of three to seven years with the expectation of generating attractive risk-adjusted financial returns upon exiting the investment. Private equity investment encompasses various stages of investment, such as venture capital in early-stage companies (e.g. start-ups), growth equity in more established companies looking for expansion capital, or buyouts in the latter stages of a company's growth.

SME loan securitisation offers pension providers the possibility to indirectly finance SMEs. It consists of the transformation of SME loans, which are illiquid in nature, into tradable securities that institutional investors can buy. Through securitisation, a bank or SME lender bundles a package of SME loans into a pool ("portfolio") and sells the portfolio to capital market investors through the issuance of securities by a special purpose vehicle (SPV). The securities are backed by the loan portfolio (The World Bank Group, 2020[25]). SME loan securitisation allows banks to transfer credit risk partially to the market while achieving capital relief. As a result, capital is freed up and can potentially generate additional loans to SMEs. Pension providers can diversify their investment portfolios and get exposure to the SME asset class, while still achieving potentially attractive returns, in line with their investment objective.

Similarly to loan securitisation, *covered bonds* provide an indirect tool to finance SMEs for pension providers. Covered bonds are debt securities issued by a credit institution that are backed by a dynamic cover pool of high quality assets (WBG, IMF and OECD, 2015[26]). Investors have double recourse to the issuer and to the cover pool. So, unlike with loan securitisation, covered bonds remain on the balance sheet of the bank. This feature creates asset encumbrance and limits issuance of covered bonds as compared to loan securitisation. However, one advantage of the covered bond system is the high quality of the "cover pool", which is based on strict standards imposed by regulations. In particular, such standards include precise definitions of eligible collateral. This helps to ensure the homogeneity of the cover pool and the quality of the underlying loans. Pension providers can therefore invest in the asset without the need for extensive due diligence on the underlying assets.

Financing instruments to finance a recovery

Pension providers can be key investors in asset classes aiming to boost economic recovery efforts. The vehicles that investors typically use to finance long-term investments include different forms of direct unlisted equity investment, listed equities, unlisted infrastructure funds, government, municipal and sub-sovereign bonds, project bonds, debt funds, and green bonds.

Direct unlisted equity investments are those which are made directly in stand-alone assets, bypassing fund managers. Direct investment can give pension providers ownership and control over alternative asset classes such as infrastructure, real estate, and private equity. Only the largest investors can invest directly in such large-scale projects. Direct investment poses challenges for many pension providers, as it requires scale, good governance to oversee complex investment programmes, the organisational structure and compensation model to attract a talented in-house investment team, and long-term patient capital. Some projects also require pension providers to engage in a competitive tender process, and it can be expensive, time-consuming and laborious to submit individual bids.

Since direct unlisted equity investments can be quite large, in particular for infrastructure projects, it is becoming more common for institutions such as pension providers to pair up with other investors or even fund managers to *collaborate for investment*. Some pension providers collaborate to benefit from a better alignment of interest with other pension providers with common investment horizons, to lower fees, get better control of the characteristics of the investment, pool local knowledge, and spread risk (OECD, 2015[24]). Collaboration can take many forms. It can involve co-investing on an ad-hoc basis, such as

alongside a general partner, with the pension provider being the limited partner. Alternatively, pension providers can form a joint owned fund manager or an investment instrument. There are also hybrid forms of direct unlisted equity investment through regulated structures established by pension supervisors and regulators (OECD, 2020[17]).

Unlisted infrastructure funds are structures like private equity funds, which invest by constructing a portfolio of investments and charging fees to investors. Most unlisted infrastructure funds are traditional closed-end private equity type fund structures, managed by the general partner of the fund (GP), often an investment bank or investment management firm. Institutional investors like pension providers participate in unlisted infrastructure funds as limited partners (LPs). The GP invests capital commitments to the fund in various infrastructure assets on behalf of the LPs, selecting assets and managing the day to day operations of the fund. A key shortcoming of infrastructure funds is that the lifespan of the vehicle they offer is often too short-term (often 5-10 years) and sometimes costly. This has motivated some larger pension providers to invest directly. However, the vehicle remains relevant to smaller pension providers and those lacking the scale or capability to engage in investments directly. Its primary benefit remains that it allows pension providers to access diversified pools of infrastructure assets without having to build in-house investment expertise or make large capital commitments (Belt and Nimmo, 2013[27]).

Investing in *listed securities* is also one of the simplest ways pension providers can get exposure to infrastructure assets. Investors can buy a stake in publicly listed companies that operate in sectors such as infrastructure or buy shares in publicly listed funds investing in infrastructure. Alternatively, pension providers can invest in listed infrastructure funds traded on a stock exchange. Listed infrastructure funds are similar to unlisted funds in that an external manager invests on behalf of investors in various infrastructure assets. While the fund is publically listed, the assets invested in by the fund may or may not be listed (OECD, 2014[28]). The model makes it possible for both retail and institutional investors to gain exposure to infrastructure assets. Listed infrastructure indexed funds are another way pension providers can gain exposure to infrastructure assets. Infrastructure indices track the performance of listed companies in the asset classes that are available in established stock-market indices. They allow for passive asset management in infrastructure companies. However, a shortcoming of such indices is that is it not always clear how infrastructure is defined and whether the index reflects the true infrastructure exposure that investors seek (OECD, 2014[28]). This type of investment delivers greater liquidity than other investment vehicles and can make it possible to diversify across geographical region and sector. However, publically listed companies may have a higher correlation with pension providers' existing equity investments, making the portfolio less diversified (Belt and Nimmo, 2013[27]).

Government, municipal, and other sub-sovereign bonds are bonds issued by public entities in capital markets in order to finance the construction and operation of an infrastructure asset. Issues are sponsored by federal governments, local governments and sub-sovereign entities such as government agencies and multi-lateral development banks that bear an implicit backing of the sovereign entity (OECD, 2015[24]).

Project bonds are standardised securities that finance individual stand-alone infrastructure projects. They can be issued in public markets, or placed privately. Project bonds are a growing area of project finance and provide a potential solution to finance brownfield projects with long-term debt. Project bonds can be more risky than corporate bonds, because the risk of loss can be higher for a specific project compared with a diversified portfolio of projects (OECD, 2015[24]).

Pension providers can also provide financing to infrastructure projects through *debt funds*, which are now an alternative to traditional debt from banks. Project finance is a long-term loan structure where the project's cash flows repay a loan. Debt funds are investment vehicles created as mutual funds or non-banking financial companies that give investors exposure to infrastructure debt market. They are a way of investing in assets that are relatively safe but offer generally higher yields than corporate bonds. They are also an opportunity to invest in senior debt over equity (OECD, 2014[28]). Debt funds pool lenders, lowering each investor's risk compared with direct lending.

Finally, *green bonds* are a subset of corporate bonds, project bonds, and sub-sovereign bonds that finance investment in green infrastructure assets such as clean energy. Green bonds can be originated through development banks, governments, municipalities, corporations, banks (as covered bonds) or by SPVs as project finance and asset backed instruments (OECD, 2015[24]). In general, proceeds can go toward new or existing projects that are meant to have positive environmental or climate effects. From a financial markets perspective, green bonds are not different from other project bonds or debt instruments. However, green bonds are sometimes treated differently due to their growing appeal and potential role in financing clean energy and climate change initiatives.

1.6. Conclusions and policy guidelines

COVID-19 has produced a large disruption of labour markets, with cascading effects on retirement savings arrangements and old-age pensions. As economic activity deteriorated or even stopped in some sectors, unemployment rates soared. In response, countries have adopted income support measures for workers at an unprecedented scale. These measures include expanding job-retention schemes, easing the access to unemployment benefits and providing cash transfers to the population, in particular to the self-employed. All of this will impact old-age pensions and retirement savings arrangements.

On the public pension side, the broadened coverage of job-retention schemes and unemployment insurance has generally lowered the transmission of the labour market slump to pension entitlements compared to previous recessions, which will cushion the total impact of this shock on future pensions. In particular, the expanded coverage of JRS and unemployment benefits during the COVID-19 crisis has provided better employment and labour income protection, and thereby pension protection in earnings-related schemes. Beyond JRS, some countries deferred, suspended or subsidised public pension contributions. The impact on pension entitlements depends on the details of these measures as well as on the tightness of the links between contributions and entitlements. In contrast to wage subsidies in JRS, the income support granted to the self-employed has generally been exempted from taxes and social security contributions, and the corresponding public pension entitlements have not accrued on these benefits. Some countries have also increased the benefits or provided some temporary support to retirees, especially to those with low income.

Early estimates in several countries show a substantial drop in contribution revenues and therefore a weakening of pension finances in the short term. Moreover, the excess mortality due to COVID-19 observed so far is expected to reduce current and future pension expenditure only slightly. While the future development of the pandemic and its final impact on mortality and pension liabilities are subject to large uncertainty, over the longer term the newly accumulated debt is likely to put pressure on pension finances, already strained by demographic changes.

COVID-19 has created many challenges to retirement savings arrangements. Its knock-on effects on the economy and financial markets reduced the level of assets in retirement savings plans in the first quarter of 2020. Liabilities of plans guaranteeing a level of retirement benefits are likely to grow as interest rates have fallen further. COVID-19 has also affected the ability of workers and their employers to contribute into their retirement savings plans. In addition, policy makers, regulators, supervisors and pension funds face operational disruptions due, for example, to the adjustment to working remotely. They are also exposed to cyber-attacks, and together with individuals saving for retirement, to frauds and scams. There is also the risk that people prioritise their short-term needs over their long-term well-being, taking all opportunities available to stop, reduce or postpone contributions and withdraw their retirement savings early. Finally, there are calls on pension providers to invest in local businesses, infrastructure projects, and post COVID-19 recovery projects, which could potentially increase the risk profile of retirement savings portfolios.

These challenges have led policy makers to take several policy measures. A number of them intend to protect plan members, retirees and pension providers and ensure the sustainability of retirement savings

schemes. These measures may subsidise contributions to retirement savings plans in a time where it may be harder for members or their employers to contribute. Some measures aim to avoid locking in short-term investment losses and losing the opportunity to recoup losses when financial markets bounce back. Policy makers have also given flexibility to pension providers to secure solvency, and to allow them to deal with pressing issues given the operational challenges that come with confinement and social distancing measures. However, some of the measures implemented, while providing short-term relief, may have a lasting impact on the well-being of future retirees, in particular on retirement income adequacy. These measures include those allowing employers and individuals to defer, reduce or stop pension contributions, as well as those allowing individuals to access their retirement savings early.

Finally, while pension providers can use assets earmarked for retirement to support the economy during and in the aftermath of the COVID-19 crisis, safeguards and appropriate investment structures need to be in place to ensure that they continue acting in the best interest of members. In particular, strong governance and well-defined investment and risk-management strategies are necessary to prioritise the interest of members when engaging in new investment opportunities. Policy makers can also facilitate the mobilisation of private capital to long-term investment through public-private partnerships, financial incentives or special vehicles for investment in alternative assets. Finally, pension providers can help address the pandemic’s effects through COVID bonds, provide financing to businesses through various equity and debt instruments, and invest in long-term assets such as infrastructure to stimulate the economic recovery.

Policy considerations

The response to the decline of asset values in retirement portfolios is to stay the course and avoid materialising value losses by selling. Saving for retirement is for the long haul. Fluctuations in asset values are inevitable during the life of a retirement portfolio. Over the long-term, portfolio investment provides a return to retirement savings. Experience shows that selling when markets go down and buying when they go up is far from appropriate as ‘timing the market’ (i.e. attempting to predict future market movements) is very complex and subject to large risks. Selling assets when shocks occur may lead to materialising the reduction in value and precludes opportunities to recover those losses.

Policy makers should communicate to members the importance of staying the course and keeping long-term investments plans. For most countries, it took around two years for the value of assets in retirement savings accounts, which experienced big valuation losses during the 2008 financial crisis, to recover to 2007 levels (OECD, 2020[17]).[28] Preliminary OECD estimates based on market movements suggest that the value of assets in retirement savings accounts recovered their pre-COVID-19 levels by the end of Q3 2020 thanks to the recovery of financial markets in the second and third quarters (OECD, 2020[17]). Therefore, as long as people do not sell their assets, they do not materialise the losses and their portfolios eventually could recover and resume their long-term trend upwards.

Pension providers should also stay the course and maintain their investment strategies. All pension providers should have an investment policy establishing clear investment objectives consistent with their retirement income objective and liabilities, and at arm’s length from governments. It is important that pension providers act in accordance with these investment objectives to be able to deliver on their promises and maintain trust in the system. In particular, pension providers should maintain diversified investments, both domestically and globally. They should also carefully assess new investment opportunities linked, for example, to the post-COVID-19 recovery, and not engage in those for which they lack the skills and expertise to appropriately assess the risks and rewards.

It is important to allow for regulatory flexibility in recovery plans to address liability problems stemming from retirement promises. Regulatory rules, including mark-to-market valuation principles and recovery plans, remain essential for the long term but need to be flexible during exceptional circumstances. However, it is also important to reverse that flexibility once the exceptional circumstances have faded.

Flexibility with respect to regulatory compliance and supervisory oversight in a proportionate, flexible and risk-based manner could help alleviate the on-going pressures that could lead to poor decisions or exacerbate the financial difficulties that the sponsor faces. Flexibility in regulation and supervisory oversight should focus on making sure that the increase in the liabilities of DB pension plans and insurance companies offering life annuities would not put further strain on those offering retirement income promises during difficult times.

Additionally, funding and solvency rules for DB plans should be counter-cyclical. Introducing flexibility in meeting funding requirements would help to avoid 'pro-cyclical policies' and allow pension funds to act as long-term investors and potentially stabilising forces within the global financial system.

Disclosure of the type of scams and frauds on the websites of national authorities and pension providers, as well as advice to trustees and advisors to send regular and clear information to plan members warning that scammers may exploit their misunderstandings and fears, could reduce the negative impact of frauds and scams.

Some countries have implemented measures to provide short-term relief that may have lasting consequences on retirement well-being. Measures such as contribution holidays and early access to retirement savings accounts may affect the adequacy of future retirement income. It is important to limit early access to balances accumulated to finance retirement as much as possible, especially if access is universal, irrespective of their personal situation. The goal of retirement plans is to finance retirement. Allowing withdrawals from retirement pots before retirement may lead not only to lower retirement income adequacy but also to materialising asset value losses, as well as liquidity and investment management disruptions.

Early access to savings in retirement plans should be a measure of last resort. Notwithstanding this, there can be room for flexibility in exceptional personal circumstances. Many jurisdictions already include provisions allowing for partial withdrawals of retirement savings based on specific exceptional circumstances: hardship situations like unemployment accompanied by protracted and large losses of income, or terminal illnesses. These programmes should be maintained for people who need them most. Governments should favour the use of aid programmes, such as unemployment or job-retention programmes, as an emergency mechanism to assist people with large temporary losses in income. Access to retirement savings should remain an exceptional measure based on individual specific circumstances and, where needed, as a temporary expansion of measures already in place for that purpose.

Policy makers should promote a favourable environment for pension providers to use assets earmarked for retirement to support the economy. In particular, policy makers could encourage long-term investment in alternative asset classes by considering structural solutions to develop the market for alternative investment, and making sure that such investments are available, transparent and financially attractive. They should better account for the desired risk-return profiles of pension providers when designing public-private partnerships to encourage their participation. Policy makers also need to make sure that appropriate investment vehicles are available to support programmes addressing the effects of the pandemic (e.g. COVID bonds), to finance small and large businesses, and to contribute to the economic recovery. They may also have a role to play to help pension providers gain access to better quality data to assess investments and enhance pension providers' capabilities to invest in alternative asset classes through targeted educational initiatives. This could favour the loosening of some investment restrictions that limit investment in less liquid assets.

Policy guidelines for retirement savings arrangements

Policy makers should make sure that people saving for retirement and pension providers stay the course:

- Saving for retirement is for the long term. Maintain investments in retirement portfolios to avoid selling and materialising value losses when markets are low.

- Continue contributing to retirement plans. Governments subsidising wages may want to extend the subsidies to cover contributions paid by both employees and employers, as part of the many programmes to assist people facing the economic fall from COVID-19.
- Act in accordance with investment objectives. Pension providers should adhere to their investment objectives and carefully assess new investment opportunities. Their investment decisions should be at arms-length from governments.

Policy makers, regulators and supervisors should: [29]

- Allow for regulatory flexibility in recovery plans to address funding problems stemming from retirement promises (e.g. DB pension arrangements and lifetime income products). Make sure that once the emergency is over, measures providing flexibility are removed.
- Make sure that funding and solvency rules for DB plans are counter-cyclical. Introduce flexibility in meeting funding requirements, thereby avoiding pro-cyclical policies and allowing pension funds to act as long-term investors and potentially stabilising forces within the global financial system.
- Provide proportionate, flexible and risk-based supervisory oversight coupled with adequate communication to reduce frauds and facilitate efficient operations. Supervisory oversight should concentrate on prudential and market conduct regulation, including ensuring the protection of members and beneficiaries against COVID-19 related scams, especially of the most vulnerable individuals. Supervisors should communicate to market participants and individuals on their expectations and recommendations in time of the crisis and actions made to facilitate pension funds' operations and to ease administrative burden.
- Allow access to retirement savings as a measure of last resort and based on individuals' specific and exceptional circumstances. Retirement pots are to finance retirement. Accessing retirement savings could lead to materialising temporary asset values losses, liquidity and investment management problems for pension funds, and, more importantly, to retirement income adequacy shortfalls. Current regulatory frameworks already allow for tapping retirement savings in exceptional circumstances when substantial income losses occur, and may only be expanded further on a temporary and targeted manner, where needed, to address genuine financial hardship.
- Develop close co-operation with stakeholders, regulators and supervisors, at the national and international levels, to share solutions and effective ways to deal with the current crisis.

Policy makers can promote the use of assets earmarked for retirement to support the economy while ensuring that these investments are in the best interest of members (OECD, 2020[17]). They can enhance the quality of data to assess investments and pension providers' capabilities to invest in different asset classes; adjust investment regulations; promote a favourable environment for long-term investment and suitable investment vehicles; and ensure appropriate alternative investments are available and financially attractive.[30]

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Notes

[1] For a more thorough discussion of the issues relating to COVID-19 and pensions, and an overview of the different country specific policy responses affecting retirement savings arrangements, see (OECD, 2020[17]).

[2] For example, France increased the generosity of the STW scheme leading to an income replacement rate, for hours not worked, of 84% of net wages (100% at the minimum wage floor and 84% up to a threshold equal to 4.5 times the minimum wage). From 1 October 2020, the replacement rate has decreased from 84% to 72%. The state subsidy declined from 100% through 1 June to 85% through 1 October and 60% after that.

[3] In the public earnings-related pension scheme in the United States, the reference wage is calculated as the average of the best 35 years of earnings. The earnings are valorised only until the age of 60 with the average-wage index (which is calculated by dividing the total wage bill by the total number of workers in a given year). In 2020, as a result of the COVID-19 crisis, the wage bill will decrease substantially but the number of workers will fall much less, in particular as employment was high in January and February. Due to the exceptionally steep drop of employment, this effect is expected to be stronger in 2020 than during previous economic downturns. Even if the labour market revives in the next years, the pension entitlement of those turning 60 in 2020 will be permanently lowered absent any change in law to offset the effect on benefits.

[4] Moreover, while lockdowns might have also prevented some deaths, e.g. those due to traffic accidents, air pollution or flu, mortality due to other causes might have increased because healthcare resources were directed at fighting COVID-19. In addition, the spread of healthy habits, such as washing hands more often or cycling, might lead to some long-lasting positive effects.

[5] The number of excess deaths stood at around 124 000 in both 2017 and 2018.

[6] The excess mortality numbers add to about 2.6 million baseline deaths in the countries covered by the EuroMOMO project in recent years on average. Thus, the increase of excess deaths by 151 000 (= 220 000 – 69 000) between 2019 and 2020 raises the total number of deaths and, thereby, the mortality rate by about 6% (151 000 / 2 600 000).

[7] Unpublished estimates for 29 OECD countries over the same period corroborate the findings of EuroMOMO showing that excess mortality, calculated slightly differently than in EuroMOMO, would increase the mortality rate by 5.8% in 2020.

[8] The annual morality rate among people at 65 and older is around 4.0% in OECD countries. The United Nations (2019[29]) data show that the rate was 4.5% in Europe and 3.8% in the United States between 2015 and 2020. A 6% increase in mortality implies than that the mortality rate increases from e.g. 4.0% to 4.24%.

[9] The age pattern of COVID-19-related mortality is skewed very strongly towards older people. Indeed, the EuroMOMO data show that 90% of the recent excess deaths happened in the population aged 65 or more, while the 65+ account for 80% non-excess deaths.

[10] Chapter 5 in this volume assesses the implications of frequent switching of investments.

[11] See https://countryeconomy.com/key-rates/uk (for the United Kingdom) and https://countryeconomy.com/key-rates/usa (for the United States)

[12] These numbers are an approximation using a standard actuarial calculation for an individual contributing 10% of wages over a 40 year period, starting at age 25, with inflation at 2%, productivity growth at 1.5%, nominal returns at 4%, discount rate at 2%, life expectancy at age 65 of 18 years, and withdrawing 10% of the assets accumulated at age 30, 45 or 60.

[13] These numbers are an approximation using a standard actuarial calculation for an individual contributing 10% of wages over a 40-year period, starting at age 25, with inflation at 2%, productivity growth at 1.5%, nominal returns at 4%, discount rate at 2%, life expectancy at age 65 of 18 years, and contributions to people's retirement accounts stopping for a complete year for someone aged 30, 45 or 60.

[14] However, they may have to adjust their investment strategy to reflect new levels of cash flows.

[15] The OSFI lifted this freeze at the end of August 2020, following the improvement of solvency ratios of DB plans and the recovery from the market lows.

[16] See https://sorted.org.nz/must-reads/riding-out-covid-19-in-kiwisaver/

[17] Asset values can change rapidly and significantly given the volatility of financial markets.

[18] In the Slovak Republic, self-employed and people under 35 entering the labour market can choose to participate in a private retirement pension savings (2nd pillar) arrangement. If they opt in, participation in this arrangement becomes mandatory. See IOPS country profile on the Slovak Republic for more information: http://www.iopsweb.org/resources/SlovakRepublic-IOPSWebsite-Country-Profile.pdf.

[19] In the United Kingdom, employers could not get a grant from the Coronavirus Job Retention Scheme (CJRS) before 1 July 2020 if employees were still working, even on reduced hours or for reduced pay. From 1 July 2020, employers could ask furloughed employees to come back to work for any amount of time and could be entitled to the extended version of the CJRS for the hours not worked.

[20] This was the second step after introducing it for companies with 250 or more employees.

[21] In Australia, various cross-agency initiatives arose to identify and limit fraud activity as well as communicate to entities and members to heighten awareness/prevention.

[22] Individuals with account balances lower than 35 UF are allowed to withdraw all their savings.

[23] Chile and Peru approved a second early withdrawal in November 2020, which is not in the numbers reported. Chile approved on the 10th of November a second 10% early withdrawal. Peru enacted a new law in mid-November 2020 allowing a second withdrawal as well, up to PEN 17 200, but only to plan members who have not contributed for more than 12 consecutive months.

[24] Although some infrastructure projects are purely private transactions (particularly in the energy sector), PPPs are still the dominant type of infrastructure project.

[25] However, there is some evidence showing that in some cases higher public sector involvement has led private investors to perceive a risk of political interference in the project (OECD, 2014[23]).

[26] OECD (2020[17]) provides more details and examples of pension providers using the different types of investment vehicles.

[27] There is no fundamental difference between COVID bonds issued by businesses and traditional corporate bonds. Some companies have labelled their corporate bonds as COVID bonds to flag that the proceeds would be particularly used to address the pandemic's effects on their activity.

[28] Equity markets quickly recovered after the sharp drop in 2008, in particularly in the United States. The recovery in equity markets led to an improvement in the value of assets in retirement saving accounts. However, improvements depend on several factors, not only the recovery of equity markets, but on the asset composition of retirement savings accounts and the extent to which people have moved their retirement investments towards a more conservative allocation. Finally, the data on retirement assets also include contributions and benefit payments, in addition to asset value gains due to better investment returns.

[29] This is in line with the IOPS statement on pension supervisory actions to mitigate the consequences of the COVID-19 crisis (IOPS, 2020[30]).

[30] OECD (2020[17]) examines all these issues in detail.

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