

Chapter 2

Non-standard forms of work and pensions

This chapter looks into pension arrangements for non-standard workers across OECD countries. Non-standard workers are defined as workers not covered by full-time open-ended contracts, i.e. part-time, temporary or self-employed workers, in particular those undertaking new forms of work. The analysis starts with describing the relevant characteristics of non-standard workers, then it depicts related pension issues and details the specific pension rules applying to them. These lead to discussing policy options on how to make pension systems more inclusive given transforming labour markets. The chapter fits into a broader OECD work stream focused on the Future of Work and the Future of Social Protection.

Introduction

Non-standard work is an umbrella term referring to a wide range of jobs. Non-standard workers can be independent contractors who work alone, self-employed workers potentially employing other people, dependent employees working part-time, workers on temporary contracts, casual workers, platform workers and other workers who are not in “standard” employment, i.e. working full-time and on open-ended contracts for a single employer (OECD, 2019^[1]). Depending on the type of non-standard work, working conditions, job security and social protection rules vary considerably, highlighting that non-standard workers are far from being a homogenous group.

Many types of non-standard work raise concerns in terms of social protection in general and pension protection in particular (Chapter 7 in OECD (2019^[1])). In several OECD countries, all or some types of self-employed workers are exempt from enrolling in earnings-related pensions that are mandatory for dependent employees, increasing the risk of low old-age income. In addition, part-time and temporary workers do not have access to the same pension protection as standard workers in some countries.

While the debate on pensions for non-standard workers is not new, the topic is of growing importance. Globalisation, automation and demographic changes transform labour markets at a rapid pace, potentially leading to an expansion of non-standard work. There is a high degree of uncertainty around how labour markets will look in the future, but one possible outcome is that there will be a rising number of non-standard workers. Countries must prepare for this possibility because labour markets can change quickly while policy responses, especially in the area of pensions, are often difficult processes and it can take a long time until their effects become apparent.

The emergence of “new” forms of work raises concerns on how workers engaged in such activities are covered for future pensions. “New” forms of work refer to platform work, very short-term contracts, so-called zero-hour contracts, i.e. contracts with no guaranteed working hours and, more generally, further types of own-account work. Many workers on such contracts have a high degree of flexibility in organising their work, but a low degree of job security and low earnings. Furthermore, governments struggle to organise pension protection for new forms of work; indeed, under such contracts, it is sometimes difficult to define to what extent workers are self-employed or dependent while some related work might remain informal. While new forms of work currently account for a small share of total employment only, they have the potential of becoming a large group of workers in the future.

All types of non-standard work combined, non-standard employment accounts for more than one-third of employment in OECD countries (Section 1). Many workers remain in non-standard employment for a long time. Non-standard workers often earn less than standard workers, face higher unemployment risks and have interrupted pension contribution histories. Moreover, they are less comprehensively covered by pension systems. All these factors add up, possibly leading to low pensions for a large group of older people.

This chapter takes stock of different approaches to organising pensions for non-standard workers in OECD countries. Section 2 sets the scene by summarising labour market trends in non-standard employment, showing that it is not an isolated phenomenon. Section 3 discusses why non-standard work raises pension issues, highlighting that different types of non-standard work pose different challenges. Section 4 describes pension rules for non-standard workers, distinguishing rules for the self-employed, part-time workers and temporary workers. Section 5 examines how pensions for non-standard workers could be improved. Section 6 concludes.

Trends and characteristics of non-standard work

Non-standard work accounts for a considerable share of employment

While full-time dependent employment based on an open-ended contract - referred to as standard work - is the most widespread form of work, non-standard work is relatively frequent and far from being an isolated phenomenon. In OECD countries, about 15% of workers were self-employed in 2017, and 13% and 15% of dependent employees were, respectively, on temporary contracts or worked part-time, i.e. less than 30 hours a week, with half of them working less than 20 hours a week. Some workers combine different dimensions of non-standard work, e.g. working part-time and on temporary contracts. Altogether, non-standard work accounts for more than one-third of total employment in OECD countries.

Part-time work

In many OECD countries, part-time work has been on the rise over the years. In about two-thirds of OECD countries, its share among all dependent employment is higher today than 20 years ago (OECD, 2019^[1]). In addition, short part-time work (i.e. working 20 hours or less per week) had also increased from 6% of dependent employment in 1985 to 9% in 2005 for the 13 countries for which data are available and has remained broadly stable since then. These long-term increases were driven by several factors, including more women entering employment on a part-time basis, changing life-style choices and possibly changing labour demand.

While two out of three part-time workers in OECD countries worked part-time by choice in 2017, one in three would have preferred to work longer hours, implying that they were underemployed (OECD, 2019^[1]). The scope of underemployment varied a lot across countries, from less than 2% of dependent employment in the Czech Republic, Estonia, Japan, Hungary and Turkey to above 10% in Australia, Italy and Spain. Compared to 2006, underemployment increased in two-thirds of OECD countries, from 4.3% to 5.4% of dependent employment on average across countries. While the rise of underemployment was particularly marked in countries that were hard hit by the economic crisis, it cannot be entirely ascribed to temporary fluctuations and high cyclical unemployment, but was also driven by structural changes.

Temporary work

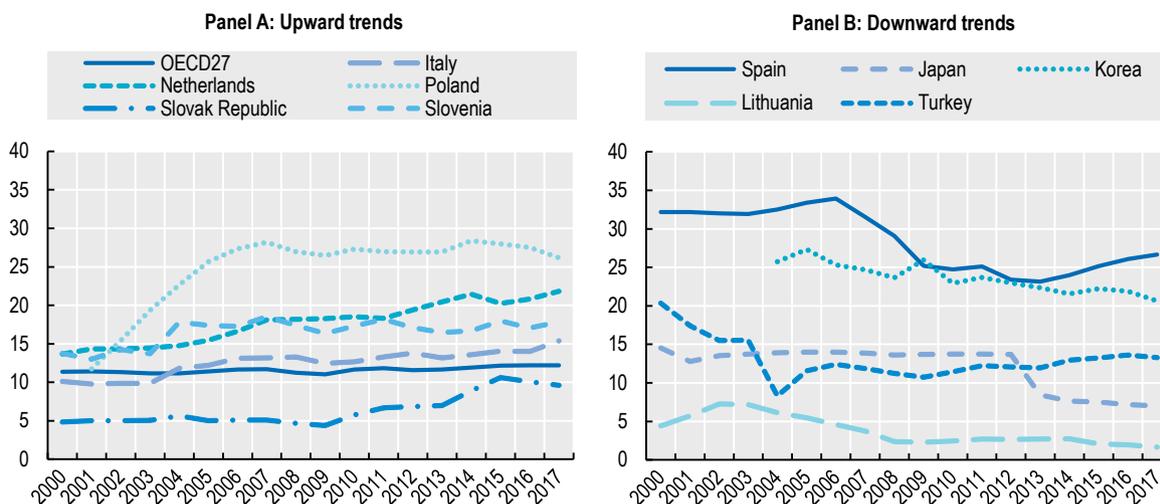
Temporary employment has followed a long-term upward trend. Among the 14 OECD countries for which data are available, it increased from about 10% of dependent employment in the mid-1980s to 13% in 2000 and 14% in 2017. An average increase of 1 percentage point between 2000 and 2017, from 11% to 12%, is also found for a broader group of 27 OECD countries. This long-term trend was caused by both gradual developments and rapid changes.

Temporary employment in Poland boomed during the country's strong economic expansion between 2001 and 2007, increasing from 12% of total employment to 28%, and stabilised at this very high level afterwards (Figure 2.1, Panel A). Other countries reported sustained, albeit less pronounced increases, e.g. Italy, Luxembourg, the Slovak Republic and Slovenia. By contrast, following two decades of record-high levels of temporary employment, the share of temporary contracts in Spain fell from 34% to 26% between 2006 and 2009 (Panel B). Similar declines took place in Turkey and in Japan. In Lithuania, after peaking at 7% in 2002, the share of temporary workers in employment shrank to 2% in 2008 and has remained roughly stable afterwards.

The upward trend of temporary work coincides with decreasing job tenure. When adjusted for changes in the age structure of the workforce, average job tenure decreased by 5%, or almost five months, in OECD countries between 2006 and 2017, especially affecting workers with low education (OECD, 2019^[1]). Yet, the United States is a notable exception as it has experienced an increase in average job tenure over the last two decades, mainly due to a decline in very short employment spells (Pries and Rogerson, 2019^[2]). However, job tenure and the use of temporary contracts have evolved in the same direction over the last decade in Australia, Canada, Estonia, Greece and Lithuania (OECD, 2019^[1]).

Figure 2.1. **Trends in temporary employment differ across countries**

Temporary employment as a share in total employment in selected OECD countries, 2000-17, % of dependent employment



Note: Countries selected based on the outstanding dynamics.

Source: OECD Labour Force Statistics.

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Self-employment

The share of self-employment among total employment declined from 17% to 15% between 2000 and 2017 in OECD countries on average. This drop is not a new phenomenon, but rather the most recent episode of a continuing long-term trend. Several dynamics contributed to this trend. The agricultural sector, for instance, has experienced a significant concentration over the last decades and many formerly independent farmers switched jobs, becoming employees, often in other sectors. By contrast, in the media sector, digitalisation has affected traditional providers by facilitating remote cooperation and has led to a large number of more flexible but less protective freelance contracts.

Decreases in the share of self-employment were particularly strong in countries that were economically catching up, such as Hungary, Korea, Poland, Portugal and Turkey. However, the picture is not uniform and the share of self-employment in total employment increased in some OECD countries, including the Czech Republic, Estonia, the Slovak Republic and the Netherlands. In some cases, clearly identifiable factors explain the increasing trend at least partially, e.g. lower taxes and social-security contributions in the Netherlands (Milanez and Bratta, 2019^[3]) and in Italy (Box 2.1 further below).

Non-standard work is undergoing transformation

Non-standard work is undergoing substantive transformation. In recent years, the decline of some types of self-employment including in agriculture has been partly offset by the emergence and expansion of new forms of non-standard work, in particular jobs relying on new technologies, such as platform-based taxi-like drivers. While today this type of work accounts for only 0.5-3% of total employment in developed countries, it is of considerable importance for young people who rely on new forms of work more frequently than older generations and some of whom seem to set a higher value on work autonomy (OECD, 2019^[1]).

New work arrangements make the boundary between dependent work and self-employment even less clear-cut than it used to be. For example, some self-employed workers are very similar to dependent employees in the sense that they only have one single client, lack financial independence and have limited control over their working conditions, including their work schedule. On average in the OECD, 16% of own-account workers have one predominant client, with the rate ranging from 6% in Denmark to 29% in the Slovak Republic (OECD, 2019^[1]). While having only one client does not necessarily mean that a person is wrongfully classified as self-employed there is the risk that false self-employment is common among such workers. Pension contributions, and more generally social security contributions that are substantially lower for independent workers than for dependent employees might indeed encourage social dumping, with some employers trying to lower their labour costs by outsourcing work instead of hiring dependent workers (Milanez and Bratta, 2019^[3]).

New technologies can help formalise home-based activities that were not classified as formal employment in the past, such as work tasks or gigs performed over internet. Internet platforms have the potential – albeit only marginally exploited for now – of improving the formalisation of independent contractors' work, e.g. by documenting their working hours and actual income, thereby providing a reliable basis for pension contributions. However, the distinction from non-commercial home production can be particularly challenging, for example because some platforms remunerate workers using platform-specific points, gifts or crypto-currencies (Mineva and Stefanov, 2018^[4]).

Within dependent employment, too, new forms of work have emerged and expanded over the last two decades (OECD, 2019^[1]). As is the case with self-employment, more risks are transferred from employers to employees or other parties in these new employment arrangements. In the case of temporary work agencies, an agency hires workers and assigns them to a user firm. Thus, contrary to most platform work, an employment contract exists, but the employer role is divided between an agency and an actual principal. On-call and zero-hour contracts do not guarantee working hours, implying that a worker's monthly income is unpredictable. Such contracts exist in some OECD countries, including Australia, Ireland, the Netherlands, New Zealand and the United Kingdom.

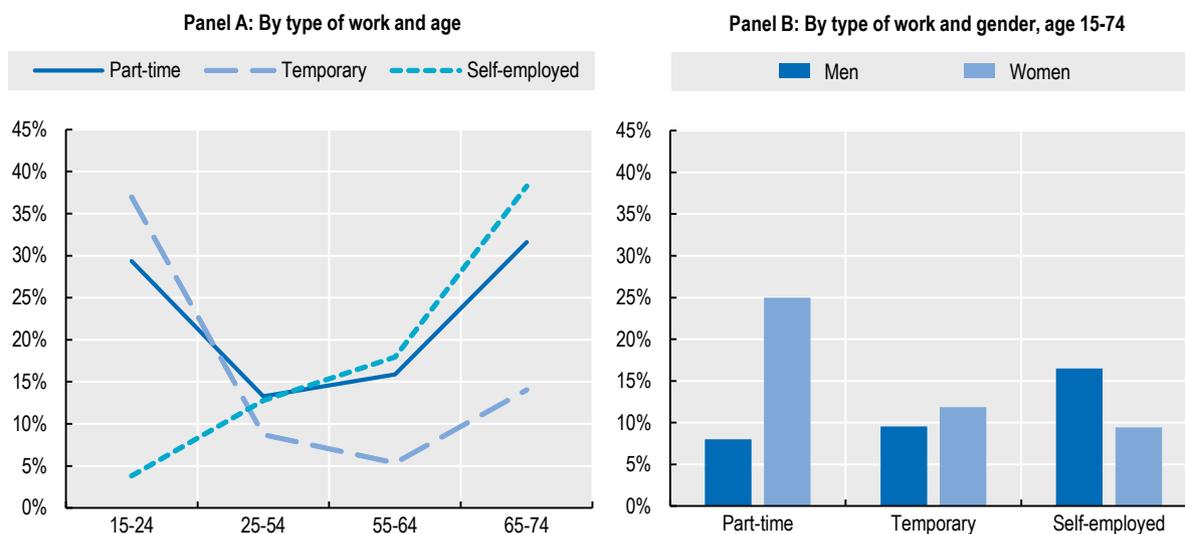
Non-standard work is frequent among workers over 65 and women

Non-standard work is common among older workers. While overall employment rates decrease at older ages, the share of non-standard work is particularly high among workers over 65: only about 15% of workers between 65 and 74 are in standard employment, against more than 60% at ages 55-64 and 25-54 (Figure 2.2, Panel A).

One-third of workers aged 65-74 are employees working part-time, compared to 16% among 55-64 year-olds and 13% among 25-54 year-olds. Part-time work enables older workers to gradually withdraw from the labour market, especially when reduced earnings are offset by full or partial pension benefits (OECD, 2017^[5]). Still, combining work and pensions is uncommon across OECD countries: more than 5% of people aged 60-69 combine work and pensions in Denmark, Estonia, Israel, Sweden, Switzerland and the United States only (OECD, 2019^[6]). In contrast to part-time work, temporary employment is not particularly common among older workers, with only 5% of 55-64 year-old and 14% of 65-74 year-old workers working as employees on temporary contracts, against 9% among 25-54 year-olds and 37% among 15-24 year-olds.

Figure 2.2. **Self-employment and part-time employment are more common among older workers**

% of employment, average across 26 OECD countries, 2018



Note: For temporary and part-time employment data are shown for the 65+ instead of the 65-74 age-group due to data availability. Definitions of part-time work differ slightly between OECD and Eurostat. Source: Eurostat.

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Self-employment, too, is frequent among older workers. Many self-employed only become independent workers at later stages of their career, which is one factor explaining why the self-employed tend to leave the labour market later than other types of workers. The share of self-employed workers in total employment is 38% among the 65-74 year-olds, compared to 18% among 55-64 year-olds and 13% among 25-54 year-olds (Figure 2.2, Panel A). A further reason why the self-employed work longer is that they are less directly affected by legal and institutional obstacles to longer working lives, such as mandatory retirement ages and workplace pressure to retire at a specific age, which is common for example in Korea (OECD, 2018^[7]). Seven in ten self-employed workers in the United States

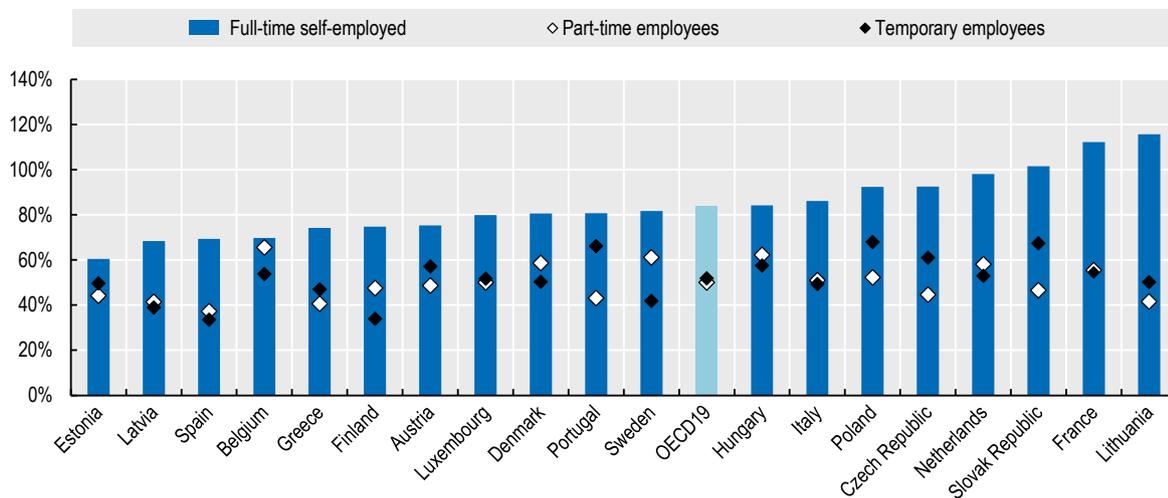
expect to retire after age 65 or not at all and six in ten plan to work in retirement (Transamerica, 2019^[8]). Self-employment enables a smooth transition from work to retirement because it allows workers to reduce working hours at their own discretion.

Non-standard work is also common among women, in particular part-time work. One reason is that part-time work enables to reconcile care and work responsibilities and care tasks are still today mostly carried out by women (OECD, 2017^[9]). Part-time work is three times more frequent among working women than among working men, and one in four working women works part-time in the OECD (Figure 2.2, Panel B). Part-time work may compromise career prospects, however, and be an obstacle to the economic independence of women within families (OECD, 2019^[10]). By contrast, self-employment is more frequent among men.

Non-standard work generates low earnings and is often persistent

Non-standard workers have, on average, lower earnings than full-time employees on permanent contracts. Across the 19 OECD countries for which data are available, part-time and temporary workers earn around 50% less per year than full-time workers, with the difference being much wider in some countries such as Latvia and Spain (Figure 2.3). The difference is due to a lower hourly pay, a lower number of hours worked (e.g. part-time workers) and employment breaks (e.g. temporary workers). When controlling for employee's and employer's characteristics, OECD (2015^[11]) finds an hourly wage penalty of 12% for temporary workers.

Figure 2.3. **Non-standard workers earn substantially less than standard workers**
Annual median gross labour income of non-standard workers relative to standard workers, 20-60 year-olds, 2016



Note: Full-time self-employed and part-time workers are only included in the calculation if they have been in the same employment status for at least 12 months. They are compared to dependent employees working full-time over the past 12 months. Median income of temporary workers is compared to the income of the permanent workers. Income refers to yearly total cash income. Only observations with positive income are included.

Source: EU-SILC, 2017.

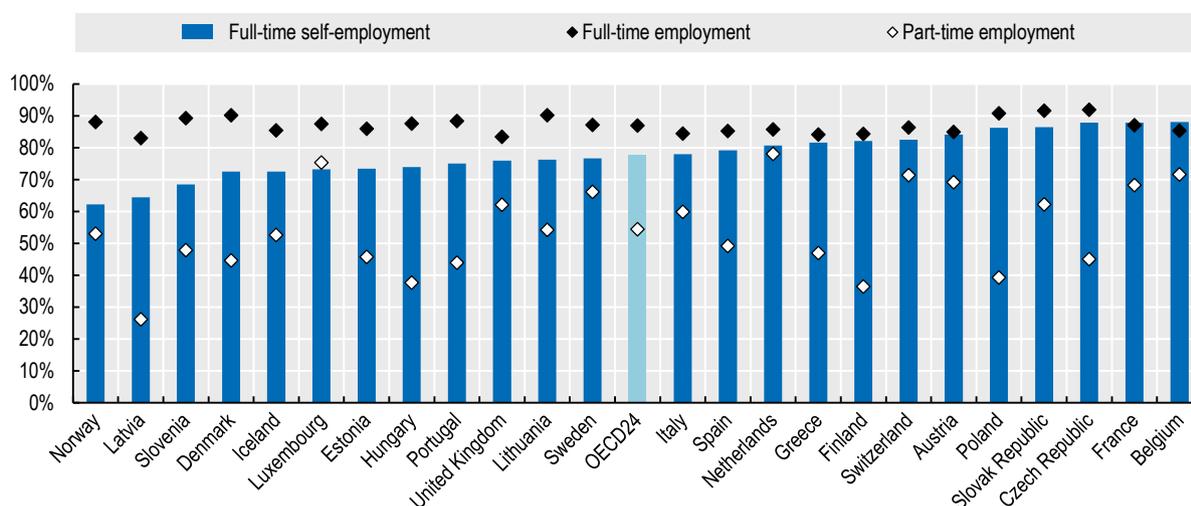
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Median full-time self-employed workers earn 16% less than full-time employees on average across OECD countries, but there is substantial variation across countries.¹ In Estonia, Latvia and Spain median full-time self-employed workers earn less than 70% of a

median full-time dependent worker's wage while in France, Lithuania and the Slovak Republic, they earn more than 100% of it.

In many cases, non-standard employment is not a short episode interrupting a worker's career in standard employment. On average across the OECD, 87% of standard employees remain (or are again) standard employees within a two-year timeframe, while 78% of full-time self-employed workers and 54% of part-time workers keep their employment status (Figure 2.4).² OECD (2015_[11]) points out that even when controlling for other characteristics, the transition rates from temporary to permanent work often remain below 50% over three years. In many countries, temporary work improves chances to find a permanent position while this is less often the case for self-employment and part-time work.³

Figure 2.4. **Non-standard work can be a long employment spell**
Probability of remaining in a given working category over 2 years, 22-55 year-olds



Note: Based on the variable PL031: Self-defined current economic status.
Source: Longitudinal EU-SILC 2017.

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Combining independent with dependent employment is common

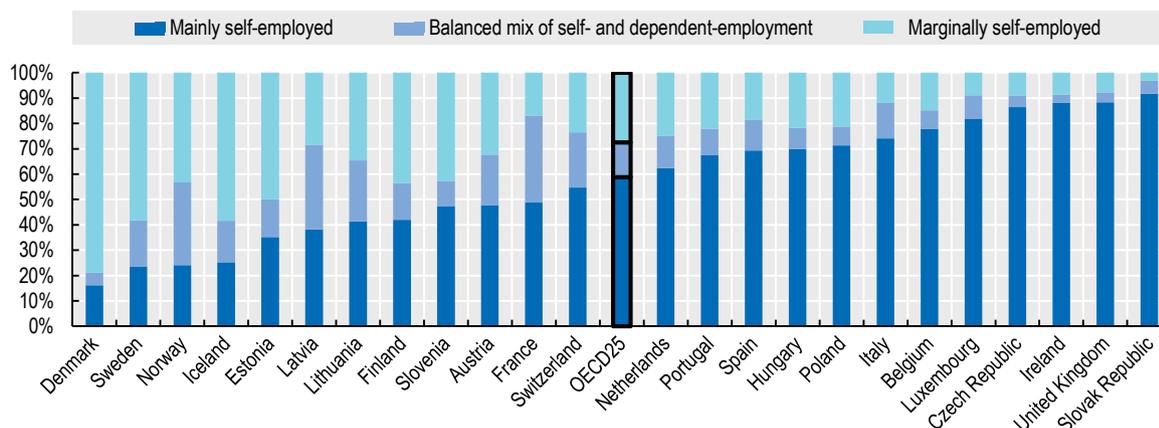
Self-employment is not the only source of earnings for many self-employed workers. Self-employment represents more than two-thirds of earnings for 59% of people with any income from self-employment in a given year on average across countries (Figure 2.5).⁴ For 14% of them, income from dependent and independent work are similarly important and for 27% self-employment is rather a supplementary activity, providing less than one-third of their total earnings.⁵

Why does non-standard work raise pension issues?

Current pension outcomes for non-standard workers can be enhanced in many countries. Improving pension rules for these workers is challenging, however. Compared to full-time employees on open-ended contracts, non-standard workers have a number of characteristics that make their pension treatment complex. The self-employed, in particular, are the group that raises the most serious issues in terms of pension coverage

Figure 2.5. **Combining self- and dependent employment is common in many countries**

As % of workers receiving yearly income from self-employment, 2015



Note: Data based on the yearly income from self-employment (PY050) and dependent employment (PY010). Mainly self-employed category stands for the self-employed workers who receive at least 2/3 of their total yearly income from self-employment and less than 1/3 from dependent employment. Balanced mix of self-and-dependent employment means that at least 1/3 of total labour income is coming from either source; marginally self-employed means that the income from self-employment was lower than a third of total labour income.

Source: EU-SILC, 2016.

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because, in contrast to other types of work, they do not have a formalised employment relationship (employment contract) that can be used as a verified basis for pension contributions. The emergence and expansion of new forms of work has amplified the pension issues related to non-standard work, especially among low-income earners. As most pension systems were built on the premise of stable, linear careers, the development of new forms of work raises concerns about old-age income prospects of future generations of retirees.

Temporary and part-time contracts raise challenges for pension adequacy

Temporary contracts often provide employment protection less comprehensively than open-ended contracts and temporary workers less often reach job tenure needed to benefit from the full protection. It is generally relatively easy and cheap for employers to end a fixed-term contract upon its term - i.e. not to renew it - while they have to comply with notice periods and make severance payments when they lay off workers on permanent contracts. In many countries, people out of employment continue to acquire pension rights as long as they receive unemployment benefits. While this instrument cushions the effect of job losses on pensions, it is only partially effective for temporary workers. Due to frequent job changes and job losses, temporary workers tend to have comparatively short employment tenure, often resulting in shorter unemployment benefit durations or restricted access to unemployment benefits.

More directly, short employment spells bear the risk that workers do not fulfil the minimum number of working days required to credit work periods (often a month or a quarter) towards entitlements to contribution-based pension benefits. In addition, some types of temporary contracts in several countries do not generate pension entitlements.⁶ In particular, agency work, casual work, seasonal work and traineeships are excluded from pension coverage in some countries despite being covered by employment contracts.

Frequent job changes within temporary employment also result in lower occupational pension coverage. Pension vesting periods can have negative effects on the pension rights of temporary workers because of their short tenure. Due to a lack of portability, work spells at different companies do not always add up, and frequent job changes lead to lower pension entitlements. In addition, entitlements can be paid out as a lump sum upon contract termination (Chapter 3), defeating the purpose of offering protection in old age.

Part-time work, too, poses pension challenges. In some cases, part-time work leads to full crediting of contribution periods. In others, periods of part-time work are not taken into account for calculating pension entitlements, and, in particular in some countries, validating a specific period requires working a minimum number of hours or earning a minimum level of income. Such exclusions increase the risk that workers fail to meet the eligibility conditions both for first-tier contributory and earnings-related pensions, or that they only meet them if retiring at older ages.

Both temporary and part-time work are often associated with low income, e.g. due to more time out of employment or fewer hours worked. Low income during the working life spills over to low old-age income. Moreover, weak workplace attachment due to temporary contracts and part-time work reduces the opportunities to acquire job-specific skills and limits access to job-level training. As a result, low earnings are associated with more patchy careers and shorter total contribution periods, which additionally lowers retirement income for low-earners (Valdés-Prieto and Leyton, 2019_[12]). Hence, contribution-length requirements of 10 or more years to access earnings-related pensions can substantially reduce pensions of non-standard workers with low earnings.

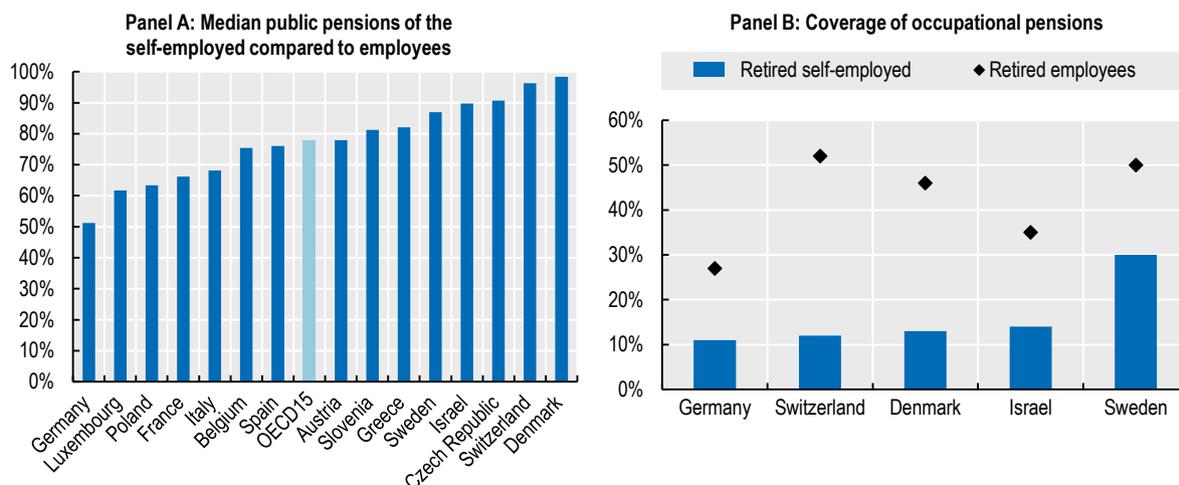
The self-employed have lower pensions than employees

Former self-employed tend to have lower public pensions than former employees.⁷ On average across 15 OECD countries, the retired self-employed receive, at the median, 22% lower public pensions than retired employees (Figure 2.6, Panel A). The gap is much smaller, typically below 10%, in countries with substantial basic pensions, such as the Czech Republic, Denmark, Israel and Switzerland. By contrast, retirees who were self-employed in France, Germany, Italy, Luxembourg and Poland have median pensions that are more than 30% lower than among former employees.

The lower public pensions of the self-employed are not offset by more private occupational pensions. The former self-employed receive occupational pension from either dedicated schemes or from entitlements earned as dependent workers. In all five countries with private occupational pension coverage of at least 10% of pensioners in the SHARE survey, namely Denmark, Germany, Israel, Sweden and Switzerland, coverage rates among retirees are much larger among former employees than among former self-employed (Figure 2.6, Panel B). Occupational private pension coverage among former self-employed workers is highest in Sweden, at 28%.⁸ The low coverage of self-employed workers widens the income gap between the self-employed and employees upon retirement.

Partly as a result of lower public pensions and lower coverage by occupational schemes, the former self-employed tend to have lower old-age income than former employees in many countries. The median retired self-employed has a disposable income that is, on average in the 14 OECD countries for which data are available, 16% lower than that of retired employees (Pettinicchi and Börsch-Supan, 2019_[13]).⁹ It is more than 20% lower in Finland, France, Poland and Spain.

Figure 2.6. **Retired self-employed individuals receive lower public pensions and are less often covered by private occupational pensions**



Note: Population 50+, 2017 or 2015. Coverage of occupational pension not shown if lower than 10% among retired employees.

Source: OECD computations based on data of Pettinicchi and Börsch-Supan (2019^[13]), originally computed with the SHARE survey data.

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In the majority of countries, the income gap between the self-employed and employees is wider among retirees than among older workers (older than 50 years). On average across countries, it equals 6% among workers (at the median) against 16% among retirees as discussed above, a gap of 10 percentage points. In Italy and Spain, the gap is more than 30 percentage-point larger among current retirees than among current workers.¹⁰ This seems paradoxical given that redistributive mechanisms in pension systems aim to reduce inequalities in old age. Among possible explanations is the fact that the self-employed contribute less to pensions (see further on in this section).

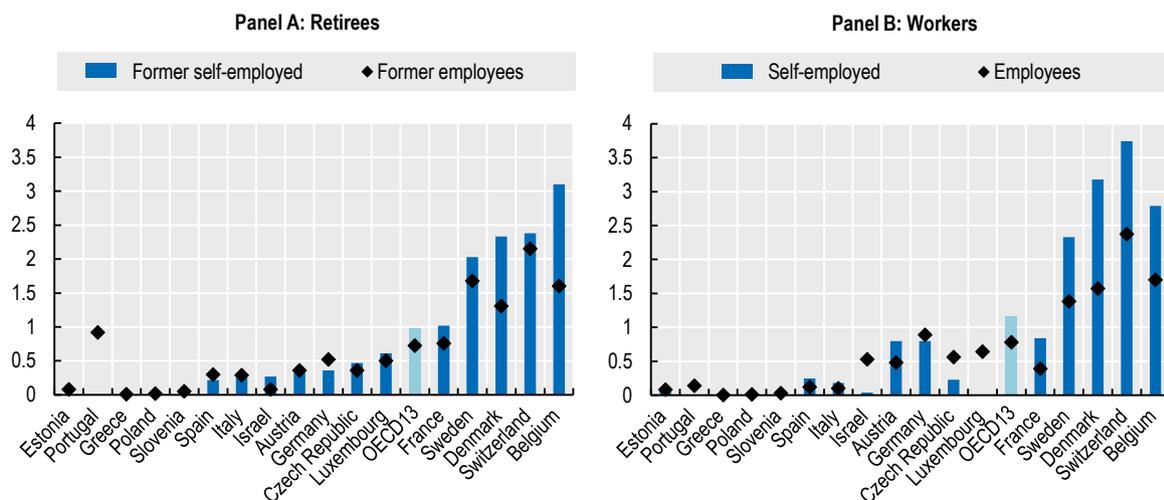
Wealth does not outweigh lower pensions for most of the self-employed

One common argument for a lower level of needed protection from mandatory pensions for the self-employed is that they have more private saving, e.g. liquid savings or capital invested in their business. However, while the situation can vary greatly among the self-employed, the median assets of the self-employed are only slightly higher than the median assets of employees. This pertains even to retired former self-employed who have typically already liquidated the capital they had invested in their businesses.

Compared to the median (in terms of assets) employee, the median self-employed has a higher net liquid assets¹¹ to annual income ratio, both when working (1.2 against 0.8) and after retirement (1.0 against 0.7), on average in the OECD (Figure 2.7). These numbers mean that the liquid assets of a median retired self-employed equal 12 months of retirement income, compared to 9 months for employees. Retired self-employed have relatively more assets than retired employees in 10 of the 17 covered countries, but their additional assets correspond to more than 12 months of income only in Belgium and Denmark; hence, the impact on the capacity to finance consumption over the whole retirement period is not substantial in most countries (Panel A). Moreover, while active, the self-employed have higher assets-to-income ratios than employees in all countries shown in Panel B except the Czech Republic, Germany and Israel, whereas differences are smaller among retirees.

Figure 2.7. **The self-employed have slightly more assets than employees when they retire**

Median liquid assets-to-income ratio, annual income, workers 50+, 2017 or 2015

Source: OECD computations using data of Pettinicchi and Börsch-Supan (2019^[13]), statistics computed with the SHARE survey data.StatLink  <https://doi.org/10.1787/888934040927>

Evidence from the United States suggests that among business owners, including sole proprietors, voluntary pension savings and house ownership are complement rather than substitute: business owners are more likely to participate in voluntary pension plans if they own a house (Lichtenstein, 2010^[14]). As a result, retired self-employed workers with low pensions are also less likely to dispose of assets in the form of housing, making them a financially vulnerable group. Many former self-employed workers do not dispose of a sufficient level of assets to offset low pension entitlements and to justify exempting them from enrolling in pension schemes.¹² Furthermore, in the Netherlands, more frequent home ownership among the self-employed than employees cushions only partially the impact of lower pensions on consumptions.¹³

The self-employed contribute less to old-age pensions than employees

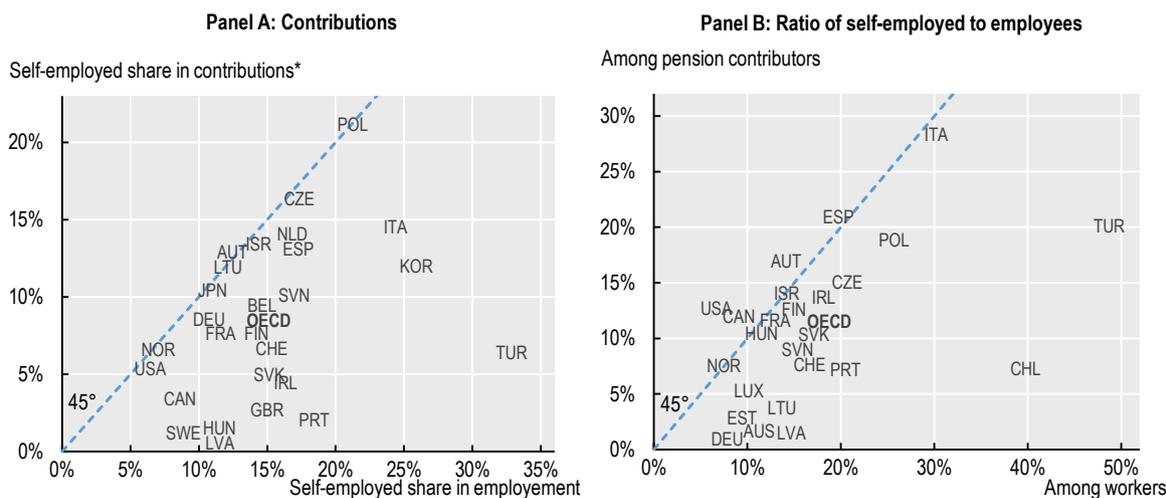
In many countries, the self-employed are less comprehensively covered by mandatory pensions than dependent employees. A range of indicators suggests that the self-employed pay lower pension contributions than employees with similar earnings. In many countries, the share of social-security contributions paid by self-employed workers in total contributions is much lower than the share of self-employment in total employment (Figure 2.8, Panel A) - including informal self-employed workers and employees - which cannot be explained by differences in contributions to unemployment insurance. The stark differences suggest that there is a substantial public pension coverage gap between the self-employed and employees.

The share of contributions paid by the self-employed is less than half the share of self-employment in total employment in Canada, Hungary, Ireland, Korea, Latvia, Portugal, the Slovak Republic, Sweden, Switzerland, Turkey and the United Kingdom. In Italy, Korea and Turkey, where the self-employed account for about one-quarter of total employment or more, coverage gaps are likely to affect a particularly large number of people, leading to lower pensions for many in the future. In countries with contribution-based basic pensions, such as Ireland and the United Kingdom, there is no close link between the

amount of contributions and entitlements and the impact on future pensions is likely to be smaller.

Figure 2.8. The self-employed contribute little to social security systems

Share of social-security contributions paid by the self-employed* vs share of self-employment in total employment** in 2015, and ratio of self-employed to employees in administrative vs survey data** in 2017



Note: Country-specific information is available in the statlink below. (*) Share of contributions paid by self-employed includes also the contributions paid by non-working individuals in some countries, as only this aggregate is available. (**) The numbers of the self-employed and employees are based on the (LFS) survey data which means that they account for informal work as opposed to the administrative data for these categories.

Source: Information provided by countries, OECD Tax Revenue and OECD Labour Force Statistics.

StatLink  <https://doi.org/10.1787/888934040946>

A low number of contributors towards pensions is a second measure hinting to contribution gaps among the self-employed. This measure has the advantage of covering pensions only (rather than social security), but is available for a limited number of countries. The ratio of the self-employed to employees is typically considerably lower among contributors than among all workers; the difference is particularly large in Chile, Latvia, Portugal and Turkey (Panel B). In these countries, the low number of self-employed workers contributing to the pension scheme is likely to be the main reason for contribution gaps, i.e. a lot of self-employed workers do not contribute to earnings-related pensions at all. Conversely, the number of contributors does not show substantial gaps in Canada, Ireland and Hungary, suggesting that contribution gaps are primarily driven by lower contributions per contributor.

Further evidence from OECD countries suggests that the self-employed pay comparatively low levels of pension contributions. In Poland, the Slovak Republic, Slovenia, and Spain, 70% or more of the self-employed pay only compulsory minimum pension contributions (Spasova et al., 2017_[15]). In the United Kingdom, 27% of full-time self-employed men had active pension accounts in 2012-13, compared to 51% of full-time male dependent employees (D'Arcy, 2015_[16]).

A high degree of discretion in setting the contribution base, no requirement to participate in earnings-related pension schemes, reduced incentives to participate in voluntary schemes and potentially lower contribution rates are the most important factors explaining why many self-employed workers pay lower pension contributions than dependent workers. In some cases, lower contributions for the self-employed are the result of policies aimed at increasing total employment, promoting entrepreneurship, raising labour income of some occupational groups such as farmers or increasing incentives to work as a self-employed by raising take-home pay.

Lower pension contributions for the self-employed are sometimes justified as a way to reflect the specific preferences of the self-employed to manage their own finances (including old-age savings) and/or remain outside of standard pension schemes (Karpowicz, 2019^[17]). The self-employed also tend to have a lower degree of risk aversion (Ekelund et al., 2005^[18]; Colombier et al., 2008^[19]). These preferences might be related to limited confidence in public pensions (ISSA, 2012^[20]). In some countries, such as Germany and the Netherlands, the self-employed have opposed against being integrated into employee pension schemes (Kautonen et al., 2010^[21]).

However, the consequences of low contributions might be severe, both today and in the future. Lower contributions first deteriorate the finances of PAYGO schemes in many OECD countries. In the future, low contributions typically translate into low old-age income and to greater reliance on non-contributory benefits, which in turn adds to the fiscal pressure stemming from population ageing. Furthermore, lower pension contribution rates for at least some types of the self-employed might create financial incentives for companies to hire independent workers instead of hiring standard workers, raising concerns regarding false self-employment and social dumping (Box 2.1).

Minimum pensions and contributory basic pensions play a key role in preventing and alleviating old-age poverty. In most cases, the amount of contributions to these schemes does not increase entitlements. In such a situation, the incentives to reduce contributions through underreporting of income are strong: it is easier for some categories of workers to do so, in particular self-employed workers.¹⁴

Integrating the self-employed into employees' schemes is challenging

Integrating the self-employed into employees' pension schemes is challenging in practice. Pension contributions for employees are often based on their gross wage, which does not correspond to any category of a self-employed worker's earnings (Figure 2.10). Gross wages are the sum of employee contributions, related personal income taxes and net wages after tax. They are lower than total labour costs from the employer perspective, as labour costs include employer contributions. By contrast, the total revenue of the self-employed includes gross labour and capital income (before contributions and taxes) as well as work-related expenses and material costs.

For the self-employed, labour and capital income are usually indistinguishable. Some countries artificially separate labour and capital income based on "theoretical wages" (e.g. Finland), but calculation rules for the latter are highly discretionary. Norway and Switzerland allow deducting interests on capital outlays to determine the relevant income for pension contributions. Many countries allow the self-employed either to decide themselves the part of their income that corresponds to labour income or to set contribution bases freely within some limits. Apart from pensions, separating wages from

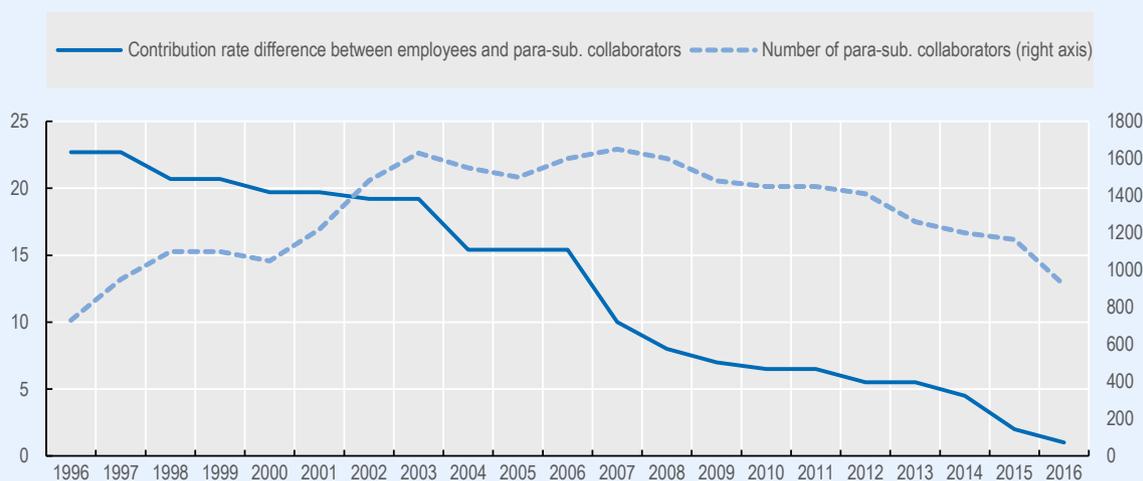
Box 2.1. Do lower pension contributions for the self-employed erode standard employment?

When pension contributions, and social security contributions more generally, are lower for the self-employed than for workers in standard employment, companies may face financial incentives to outsource tasks to independent contractors rather than hiring dependent employees and paying employer contributions. Similarly, workers might opt for higher net wage at the cost of lower protection. This problem has lately become an important topic in the public policy debate and there is controversy around the social protection of workers in such activities, e.g. food delivery drivers.

This phenomenon is not new, however. In Italy, so-called para-subordinate collaborators used to pay substantially lower pension contributions than standard employees for many years, including in cases where they depended significantly or even exclusively on one single contractor. Lower pension contribution rates may have contributed to a quickly growing number of para-subordinate collaborators in Italy in the late 1990s and early 2000s. In order to remove incentives to make excessive use of para-subordinate employment and in an attempt to combat false self-employment, the Italian government gradually increased contribution rates for para-subordinate collaborators over time, along with other policy measures, such as stricter controls to detect false self-employment and more limitations to the use of para-subordinate collaborators. The measures seem to have been effective. After peaking around 2007, the number of para-subordinate collaborators has fallen sharply, by about 40% between 2007 and 2016.

Figure 2.9. **Para-subordinate collaborators in Italy**

Pension contribution-rate difference between employees and para-subordinate collaborators, and number of para-subordinate collaborators (in 1000s)



Source: OECD (2018)_[22]

StatLink  <https://doi.org/10.1787/888934040965>

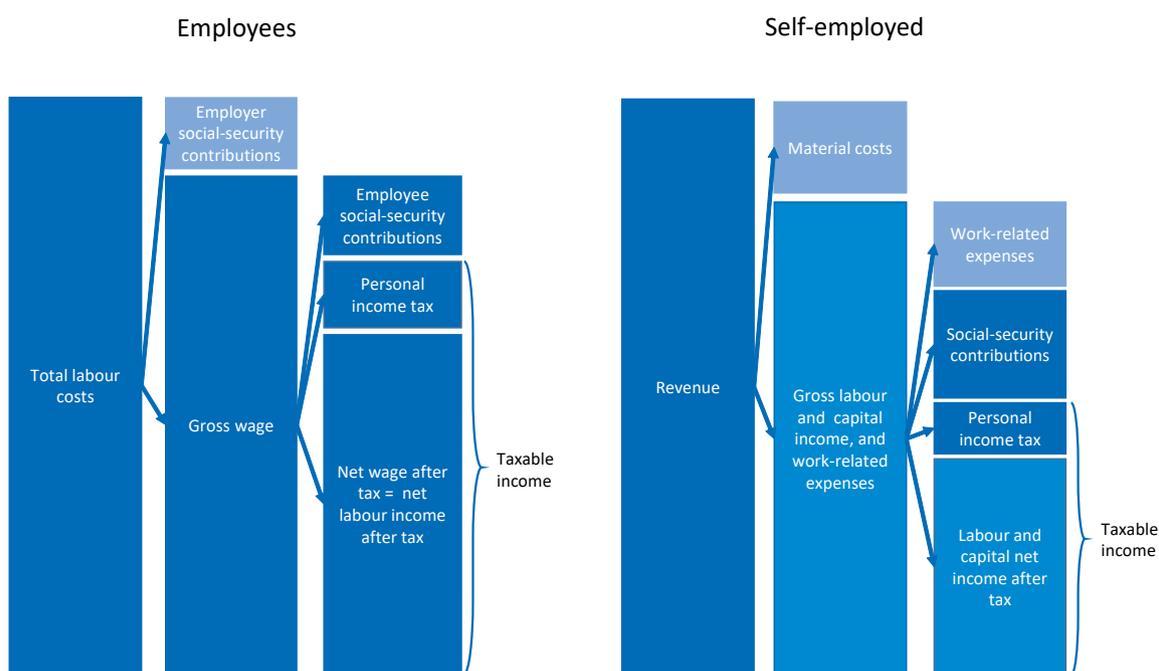
profits poses challenges for tax policies as both are often taxed differently with capital income being often taxed less than labour income (OECD, 2009_[23]; OECD, 2015_[24]).¹⁵

Fully harmonising the pension contribution base between dependent and self-employed workers would thus require either paying contributions on total personal income or precisely separating labour from capital income of the self-employed. The first case implies that contributions would also be paid on returns from savings, including savings from labour income. This would require a profound transformation of employee pensions. In the second case, separating the sources of income without any discretion seems infeasible at least for some groups of self-employed workers. Hence, in general,

harmonisation requires leaving the self-employed with some degree of flexibility in determining labour and capital shares.

A separate issue relates to contributions. Applying the full contribution rate for standard employment (i.e. the sum of employers' and employees' contributions) to self-employed workers' total revenue or their gross income would result in higher total contributions than for employees with the same taxable income. Conversely, applying it only to income net of contributions (before tax) would lead to lower contributions paid by the self-employed.

Figure 2.10. **Earnings of employees and the self-employed are not easily comparable**



Source: OECD

Income validation, bargaining power and income variability

The self-employed do not have a (distinct) employer, which results in additional complications in designing pensions. First, paying both employee and employer contributions to mandatory pensions may lead to the perception that contributions are a bigger financial burden for the self-employed than for employees, as employer contributions for the latter are less directly visible.

Second, there is thus no employer to validate the income of the self-employed, making it harder to prevent income underreporting (i.e. at least partial informality) and low contributions. Evidence from Spain, for instance, suggests that income underreporting is much more common among the self-employed than among employees (Martinez-Lopez, 2012^[25]). Findings from other countries confirm that the self-employed often underreport their earnings (Hurst, Li and Pugsley, 2010^[26]; Bucci, 2019^[27]). In the United States, a 2018 survey found that 32% of self-employed admittedly underreport their income for tax purposes (Bruckner and Hungerford, 2019^[28]). Moreover, the inclination towards informality might be magnified when working with or through the internet platforms, especially if the platforms are based abroad and do not report any transaction data to

domestic authorities. In some cases, however, the self-employed might be tempted to choose higher contribution base. For example, in the defined benefit schemes that relate the benefit amount to earnings from the last years before retirement - as opposed to career-long earnings - the self-employed might choose high contribution bases in the last years of their careers to inflate their pensions. For this reason, Spain limits the ceiling to freely-declared contribution base for people at age 47 or older who chose a lower contribution base previously. Furthermore, it is usually not possible to objectively measure a self-employed worker's working time, implying that hourly wages cannot be calculated in any reliable way. When entitlements to minimum pensions and access to mandatory earnings-related schemes depend on working time, the rules in place for dependent employees cannot be extended to the self-employed without modifications.

Third, stable earnings are one component of an employee's employment contract because employers carry most of the risks, such as the risk of fluctuating demand. As they bear all the risks, the income of self-employed workers is often subject to substantial variation. As a result, they reach floors and ceilings of pensionable earnings more erratically. Depending on pension rules, income below the floor results in either not paying any contributions and not gaining any entitlement or in paying the minimum contribution; the latter leads to a high effective contribution rate and potentially to liquidity problems. Conversely, exceeding the contribution ceiling results in a lower effective contribution rate.¹⁶

Pension rules for non-standard forms of work

Pension rules often provide less comprehensive coverage for non-standard than for standard workers. This section gives an overview of how pension systems integrate non-standard workers, highlighting that there are major differences across countries. It discusses the rules for the self-employed, part-time workers and temporary workers and summarises recent policy changes.

Self-employment

Coverage and scope

The pension coverage of the self-employed varies considerably across OECD countries. While most countries require the self-employed to participate in earnings-related pension schemes, the self-employed contribute in a similar way as employees in only ten countries (Table 2.1, first column). Even in these countries, insufficient compliance with pension rules may undermine pension coverage. In Korea, for example, the majority of the self-employed is not covered by public pensions despite their legal obligation to join the public pension scheme (Kim and Lee, 2012_[29]).

In eighteen countries (second to fourth column), self-employed workers are mandatorily covered by earnings-related schemes, but pension coverage is somehow limited because they are allowed to contribute less than employees through reduced contribution rates (second column), a high degree of discretion in setting their income base, which often results in only minimum contributions being paid (third column), or minimum income thresholds below which they are exempt from contribution obligations (fourth column). In Australia, Denmark, Germany, Japan, Mexico and the Netherlands, the self-employed are, in contrast to employees, not required to join earnings-related schemes - the same used to be the case in Chile and Israel, too, but earnings-related schemes have recently become mandatory for self-employed workers.¹⁷ Finally, in Ireland and the United Kingdom, the self-employed

participate in contributory-based basic schemes on similar terms as employees while the earnings-related schemes are voluntary for all types of workers.

As for voluntary pensions, most countries grant the self-employed access to voluntary private pensions with tax advantages, in line with the situation of employees. In order to compensate for lower coverage in mandatory schemes, the cap for tax-exempt contributions to voluntary schemes is higher for the self-employed than for employees in Belgium, France, Japan and Switzerland. In addition, Belgium, France, Germany, Luxembourg and Japan set up specific voluntary pension programmes for at least some groups the self-employed, which benefit from tax-deductions and subsidies. In New Zealand, Poland, Turkey and the United Kingdom, employees are automatically enrolled in workplace pensions, from which they can opt out, while the self-employed are not (Chapter 3).¹⁸

Table 2.1. Self-employed workers do not fully contribute to (quasi) mandatory pensions
Contributions requirements to mandatory and quasi-mandatory pensions for the self-employed, OECD countries

Mandatory or quasi-mandatory contributions to earnings-related schemes				Mandatory contributions to basic pensions only	No mandatory pension contributions
Employee-like	Reduced contribution rate	Only flat-rate contributions mandatory	Regular contributions mandatory only above income threshold		
Canada	Austria	Poland	Austria	Ireland*	Australia
Czech Republic	Belgium	Spain	Chile	Japan	Denmark
Estonia	France	Turkey	Finland	Netherlands	Germany
Greece	Chile		Latvia	United Kingdom*	Mexico
Hungary**	Iceland		Slovak Republic		
Korea	Israel		Turkey		
Lithuania**	Italy				
Luxembourg	Latvia				
Slovenia**	Norway				
United States	Portugal				
	Sweden				
	Switzerland				

Note: Employee-like means that self-employed are covered by the same or equivalent schemes as employees, have the same contribution rates and thresholds, and that their contributions are income based. (*) In Ireland, and the United Kingdom neither self-employed nor dependent workers are covered by mandatory or quasi-mandatory earnings-related schemes but basic pensions are financed with contributions. (**) In Hungary, Lithuania and Slovenia, some self-employed workers operating under specific legal forms pay only flat-rate contributions. Additional country-specific information is available in the statlink to Figure 2.11.

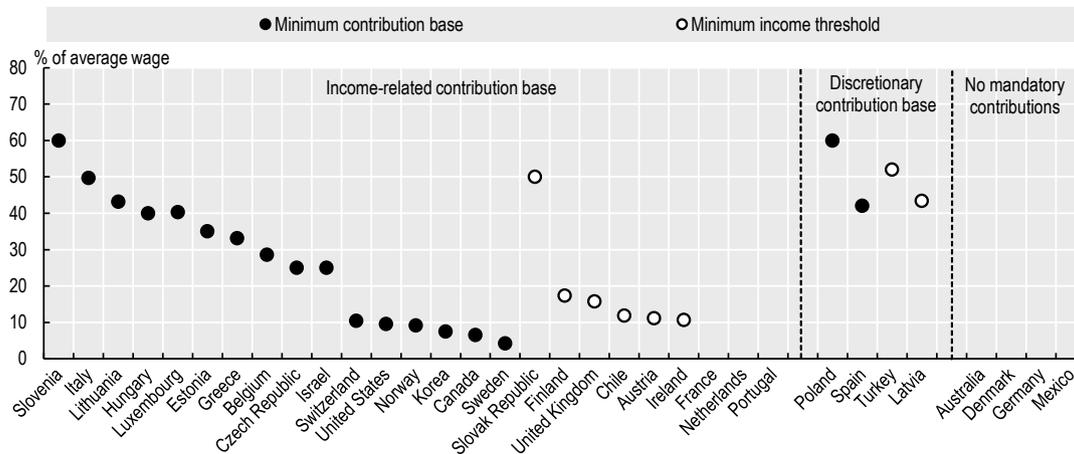
Source: Information provided by countries, MISSOC (2018)^[30], Spasova et al. (2017)^[15] and SSA (2018)^[31].

Pension and social security contribution base

Even when pension rules, for a given contribution base, are similar for dependent employees and self-employed workers, pension contributions can differ substantially. The contribution base, i.e. the earnings taken into account to calculate contributions, is not identical for both types of workers. For dependent employees, pension contributions are usually paid on gross wages, which are equal to total labour costs minus the employer part of social security contributions. For the self-employed, there is no genuine equivalent of gross wages (Section 3).

Most countries use some income-related measure as the contribution base for the self-employed (Figure 2.11). Depending on countries, this measure is income either before or after deducting social security contributions. A number of countries apply the contribution rate to a fraction of income only, e.g. 50% in the Czech Republic, 67% in the Slovak Republic, 75% in Slovenia and 90% in Lithuania.

Figure 2.11. **Contribution base for mandatory pensions for the self-employed in OECD countries**
2019 or latest available



Note: Iceland, Japan and New Zealand are not shown in the figure. Iceland fixes contribution bases depending on occupation, making contributions only loosely dependent of actual income. Exemptions from paying contributions on these pre-set bases require approval by the Directorate on Internal Revenue (OECD, 2018^[17]). In Japan, contributions are flat-rate payments, i.e. setting an income base is not necessary. In New Zealand, no mandatory pension contributions exist, neither for employees nor for the self-employed. Additional country-specific information is available in the statlink below.

Source: Information provided by countries, MISSOC (2018^[30]), Spasova et al. (2017^[15]) and SSA (2018^[31]).

StatLink  <https://doi.org/10.1787/888934040984>

Most self-employed workers in Latvia, Poland, Spain and Turkey as well as some self-employed workers operating under specific legal forms in Hungary, Lithuania and Slovenia are subject to mandatory pensions but have a high degree of discretion in choosing their income base within given brackets. Finland also provides a high degree of discretion in setting contribution bases but with an additional, hard-to-verify restriction: the contribution base should correspond to a wage that would be paid if the work of the self-employed was carried out by another, equally competent person in place of the self-employed. A high degree of flexibility bears the risk of low contributions regardless of true earnings, e.g. due to financial short-sightedness.¹⁹ In a third group of countries, as shown in Table 1.1, pension contributions for the self-employed are not mandatory (Figure 2.11).

Most countries set minimum contribution bases or minimum income thresholds (Figure 2.11).²⁰ Minimum contribution bases are minimum amounts to which pension or social security contributions for the self-employed apply, even if true income is lower. Minimum contribution bases prevent the self-employed from contributing very low amounts, but they also imply that the effective contribution rate is high for earners below the threshold. To mitigate this drawback, Poland allows the self-employed to lower their contributions for a limited period if their revenue is low. Minimum bases are high in some countries, even at or exceeding 50% of the average wage in Italy, Poland and Slovenia.

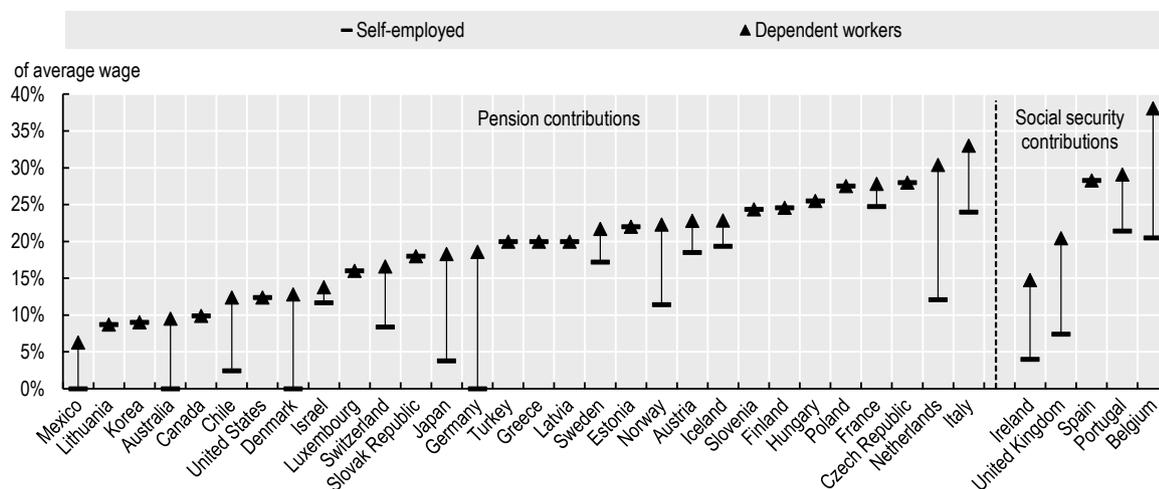
Minimum thresholds are minimum levels of income below which the self-employed are exempt from mandatory pension or social security contributions;²¹ in that case, they do not accrue pension entitlements either. These thresholds exist in eight OECD countries, ranging from 11% of the average wage in Ireland to around 50% in the Slovak Republic and Turkey. In Latvia, incomes below the threshold actually result in a considerably lower contribution rate.²²

Contribution rates

In most countries, contributions are earmarked to pensions while in five countries social contributions cover social insurance as a whole for the self-employed, i.e. including disability insurance, sometimes unemployment insurance and further types of social insurance. In these latter cases, it is usually not possible to disentangle pension contributions from other types of social contributions.

In half of the countries with earmarked pension contributions, contribution rates are aligned between dependent workers and the self-employed (Figure 2.12): the self-employed pay a contribution rate that corresponds to the total contribution rate of employees, i.e. the sum of employee and employer contributions. This is the case in Canada, the Czech Republic, Estonia, Finland, Greece, Hungary, Korea, Latvia, Lithuania, Luxembourg, Poland, the Slovak Republic, Slovenia, Turkey and the United States. In the other countries with earmarked pension contributions, contributions rates are lower for the self-employed. In Australia, Denmark, Germany, Japan, Mexico, the Netherlands, Sweden and Switzerland, this happens because it is not compulsory for the self-employed to contribute at all or only partly to earnings-related schemes. By contrast, in Austria, Chile, France, Iceland, Israel and Italy the self-employed are mandatorily covered by all earnings-related schemes, but contribution rates are lower. In Austria, however, the reduced contribution rate for the self-employed does not lead to lower pension entitlements because contributions are topped up with taxes. In Norway, the self-employed pay lower public pension contributions and, additionally, they are not covered by the private scheme that is mandatory for employees.

Figure 2.12. **The self-employed often pay lower contribution rates for pensions or social security**
Contribution rates (mandatory / quasi-mandatory pension or social security), self-employed vs dependent workers, 2018 or latest



Note: For dependent workers, contribution rates refer to the effective rates for average-wage earners i.e. total contributions paid divided by average earnings. For the self-employed, contribution rates refer to the rates paid on the mandatory contribution base by self-employed workers with taxable income equal to average net wage before taxes, i.e. to mandatory contributions paid divided by mandatory contribution base. Hence, reduced mandatory contribution base does not automatically lower contribution rates. Rates refer to the rates paid by the self-employed themselves and paid by dependent workers and their employers. Additional country-specific information is available in the statlink below.

Source: Information provided by countries, MISSOC (2018_[30]), Spasova et al. (2017_[15]) and SSA (2018_[31]).

StatLink  <https://doi.org/10.1787/888934041003>

Among the countries that do not single out pension contributions from other social-security contributions, contribution rates paid by the self-employed are identical to the total contribution rate of dependent employees - i.e. to the sum of employee contributions and employer contributions – in Spain only (Figure 2.12). In Belgium, Ireland, Portugal and the United Kingdom, the self-employed pay lower social-security contribution rates than employees, and these differences are large. Except in Portugal, one reason why contributions rates are lower for the self-employed is because they are not insured against unemployment (OECD, 2018_[7]).²³

While pension contribution rates shown in the above chart refer to the generic rule in place for the self-employed, they may vary considerably across categories of self-employment; in particular they might be very different for specific occupations, low-income self-employed and economically dependent self-employed. In Germany, the self-employed are, in general, not mandatorily covered by pensions as shown in Figure 2.11. However, some self-employed (e.g. independent childbirth assistants) are mandatorily insured in the general retirement scheme, typically paying flat-rate contributions, while other types of self-employed workers (e.g. doctors) are mandatorily enrolled in one of 89 different pension schemes that are organised by professional associations. Furthermore, specific rules apply to self-employed artists and publicists. They pay only the employee part of contributions, i.e. half of total contributions, while the remainder is financed through a specific contribution paid by their clients and a government subsidy. Similarly, in the Netherlands, painters are required to join the occupational pension scheme, which is not the case for most of other self-employed workers.

In Italy, rates differ across different types of self-employment. The contribution rate for self-employed workers is around 24% for farmers, artisans, sole-traders, contract workers and the so-called “new” self-employed, i.e. workers in non-regulated professions; for liberal professions a number of categories with different contribution rates exist, ranging between 10% and 33% of professional income. France has a number of occupational categories with different contribution rates. In general, the pension contribution rate for independent workers is 24.75%, but different rates – and in some cases lump sums – apply to liberal professions. In addition, self-employed workers with limited revenue who make use of simplified administrative rules to set up their business, so called micro-entrepreneurs, are subject to lower specific contribution rates. The current proposals related to the implementation of a universal pension scheme in France (Chapter 1) include the unification of the schemes covering liberal professions and independent workers even though some specificities might apply to various professions, including artists, journalists and seafarers. Moreover, Austria, Finland, France, Germany, Greece, Poland and Spain set up special schemes for farmers (Choi, 2009_[32]). In Poland, farmers pay very low social-security contributions that are based on their agricultural area rather than income. The scheme for farmers is considerably subsidised from general taxation as in 2018 contributions financed only 15% of expenditures despite the comparatively low pension benefit level of farmers. Box 2.2 discusses more examples of pension arrangements for selected occupations: taxi-like platform drivers and journalists.

In countries with widespread occupational pensions, such as Denmark, Ireland, the United Kingdom and the United States, employees’ contributions to the schemes are usually complemented by employers’ contributions. Such contribution matching by employers is not possible for the self-employed, who have to cover the total contribution

rate themselves in order to have the same level of coverage from occupational schemes as dependent employees.

In most countries, workers who combine self-employment with dependent employment pay contributions based on either combined income from both types of work or on income from each type of work separately. However, a few countries apply specific rules in that case. In Belgium, the minimum contribution level is substantially lower for those whose self-employed activity is an ‘additional profession’ (about 35% of the self-employed) i.e. those who combine self-employment with at least half-time work as an employee. Such workers do not build up any public pension rights through self-employment. In Korea, only earnings from dependent work are subject to pension contributions and increase pension entitlements when dependent work and self-employment are combined.

Box 2.2. Pension rules for taxi-like platform workers and journalists

(1) Taxi-like platform workers

Online labour platforms have remarkably expanded in recent years. Taxi-like platforms are one example of quickly evolving platforms, even though their use is illegal in a couple of countries, including Japan, Norway and Turkey. Standard taxi drivers are classified as self-employed workers, but in some countries, some of them are considered dependent employees. Pension rules applying to traditional taxi drivers and to drivers in taxi-like platforms are usually identical, i.e. there is no specific regulation for such drivers.

In Finland, restrictions regarding taxi services were loosened in July 2018, and both traditional taxi-drivers and taxi-like platform drivers are now treated identically with regard to pension insurance: they are covered by the standard pension insurance for the self-employed – the so-called YEL insurance – if they exceed the minimum income threshold. Earned income, which is used as the basis for social contributions, is also calculated identically. The emergence of so-called umbrella companies has made the pension treatment of platform workers more complex in Finland. Umbrella companies invoice platforms on behalf of the self-employed and freelance professionals for the services they provided and manage some administrative tasks for the self-employed. For instance, umbrella companies transfer contributions from self-employed taxi-like platform drivers to insurance institutions. The intermediary service provided by umbrella companies has raised questions regarding the extent to which such companies can be seen as employers.

In France, taxi-like platform workers, just like standard taxi drivers, are independent workers and can choose between being insured as traditional independent workers (“travailleurs indépendants”) and operating as so-called micro-entrepreneurs if they meet eligibility criteria. In the latter case, drivers pay a monthly or quarterly contribution rate (22% in 2019) directly on their revenue rather than their income – i.e. no costs can be deducted – and all social risks, including old-age insurance, are covered.

The categorisation of taxi-like platforms workers as self-employed or dependent workers is still an ongoing and controversial discussion in many countries. In Austria, the taxi-like platform Uber is in a constant legal dispute over the services the company is allowed to provide. Recently, the country’s Supreme Court ruled that Uber is not allowed to act as an online facilitator for car rentals; this ruling implies that many platform drivers who were not required to pay pension contributions because they were classified as independent contractors, now pay mandatory pension contributions as they are considered as contractual partners of Uber. In Belgium, the situation of platform workers is very diverse and no definitive conclusion regarding their social rights has been reached. In 2016, new legislation was put in place to regulate platform work. According to this legislation platform workers earning up to EUR 6000 per year do not pay contributions and therefore do not build up social rights, including pensions.

In general, the key issue raised by platform workers is the difficulty to determine whether the platform should be treated as the employer or whether platform workers should be considered as self-employed. Depending on how this issue is solved, pension rules follow accordingly.

Box 2.2. Pension rules for taxi-like platform workers and journalists (cont.)

(2) Journalists

Journalists have been strongly affected by technological change and the move from printed to digital content. As a result, business models have evolved and the contractual situation of the profession moved from predominantly dependent to mostly independent employment. In some OECD countries, all journalists are self-employed while in others they can be either self-employed or dependent workers. In most countries, standard pension rules for employees or self-employed workers apply accordingly.

However, some countries provide special pension schemes for journalists. In Belgium, a supplementary pension for workers recognised as ‘professional journalists’ (beroepsjournalisten) has been in place since 1971 on top of their general public pension. This scheme is mandatory, financed through an additional 2% contribution by the employer and an additional 1% contribution by the journalist. For journalists with a full career, this supplementary pension leads to an additional pension of up to 33% of their public pensions, depending on how long they contributed to the scheme.

In Austria, journalists are commonly classified as dependent employees or as freelance journalists, which in the latter case means that they are considered “new” self-employed workers. The “new” self-employed are covered by the same mandatory public scheme as common self-employed workers.

In Germany self-employed artists and members of the publishing professions are compulsorily insured in the Artists’ Social Insurance (Künstlersozialversicherung). Workers in this scheme pay only half of the contributions while the remaining half is paid by clients (30%) and a tax-financed state-subsidy (20%). The scheme entitles to old-age pensions, disability pensions and survivor pensions.

In France, professional journalists are insured in the mandatory schemes for employees. Stringers (“pigistes”) – who are paid for each publication rather than working time – benefit from a 20% reduction on capped social security contributions (both salary and employer’s share) and non-capped contributions (employer’s share only) to the general scheme. This reduced rate does not lower benefits and is financed through redistribution within the scheme. In addition, journalists can deduct 30% of their professional expenses (limited to 7,600 euros per calendar year) from the social security contribution they have to pay.

In Latvia, revenue from royalties, which is the main source of income for many journalists, is subject to a reduced pension contribution rate and reduced entitlements, at 5% compared to 20% for employees. Contributions on royalties are directly paid by clients.

In Italy, pensions for free-lance and employed journalists are provided by the Institute of Pensions for Journalists (INPGI). The fund has remained defined benefit while most other workers are covered by notional defined contribution schemes. In 2017, expenditures exceeded revenues by 42%, highlighting the large imbalances between total contributions and benefits (Itinerari Previdenziali, 2019^[33]).

Pension entitlements

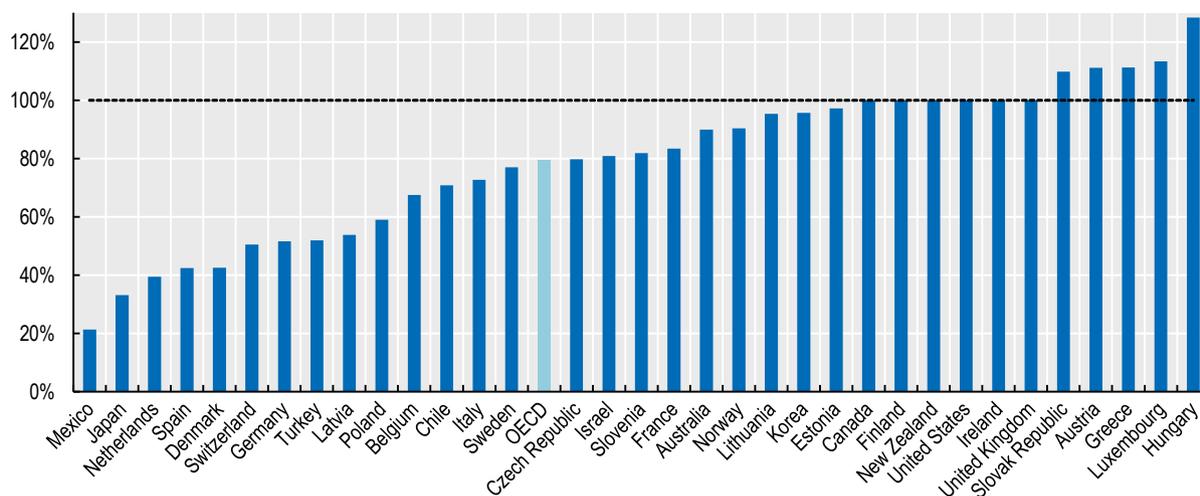
Self-employed workers with a taxable income (i.e. net of social security contributions) equal to the net average wage before tax (gross wage net of employee’s contributions) can expect to receive in the future - after contributing what is mandatory during a full career – an old-age pension equal to 79% of the theoretical gross pension of the average-wage worker in the OECD on average (Figure 2.13).^{24 25}

In countries where the self-employed are not required to contribute to earning-related pension schemes while employees are, the relative theoretical pension is among the lowest. In these countries, the old-age pension of the self-employed from mandatory schemes is limited to the old-age safety net including the basic pension. In the full-career case, the theoretical pension of the self-employed is about half the pension of employees or even much lower in Mexico (21%), Japan (33%) and also Denmark, Germany and the Netherlands. Among these countries, Australia stands out as the means-tested basic pension (Age Pension) gives the self-employed 90% of what average-wage employees get from mandatory earnings-related schemes (Superannuation).

Low theoretical relative pensions for the self-employed - between 40% and 60% of employees' pensions - are also found in Poland, Spain and Turkey where only flat-rate contributions to earnings-related schemes are mandatory for the self-employed, and in Latvia, where mandatory contributions above the minimum wage are reduced substantially.

Figure 2.13. Theoretical pensions of the self-employed are lower than those of employees

Theoretical pensions of a self-employed worker relative to an employee having both a taxable income (net income or net wage before taxes) equal to the average net wage before taxes, for individuals with a full career from age 22 in 2018 and contributing only the amount that is (quasi) mandatory to pensions.



Note: For Iceland, details of pension calculation for the self-employed are not available. For Portugal, the contribution base is linked to revenues as opposed to income and the calculation is not possible. Additional country-specific information is available in the statlink below.

Source: Information provided by countries and OECD pension model.

StatLink  <https://doi.org/10.1787/888934041022>

Lower contribution rates and a reduced contribution base result in lower pensions from mandatory earnings-related schemes for the self-employed relative to employees with the same taxable earnings in many countries. For example, in Belgium, France (points-scheme component) and Italy, reduced contribution rates directly affect entitlements within the public system while in Norway, Sweden and Switzerland pensions are lower because the self-employed pay none or reduced contributions to mandatory funded schemes. As a result, theoretical pensions of the self-employed relative to employees reach 50% in Switzerland; around 70% in Belgium, Chile²⁶ and Italy; around 80% in the Czech Republic, France, Israel and Sweden; around 90% in Lithuania, Norway and Slovenia and 97% in Estonia. However, there can be some offsetting factors. For example in the Czech Republic, progressive replacement rates result in the relative theoretical pensions of the self-employed reaching 80% even though the contribution base is set at 50% of taxable income only. In Norway, the reduced contribution rate to the public scheme does not reduce the benefits implicitly while in Austria the reduced contributions of the self-employed are explicitly topped up with taxes.

Some countries calculate pensions of the self-employed based on gross income, i.e. income before deducting contributions. This leads to higher pensionable earnings “all else

equal” in the case studied here (taxable income of the self-employed equal to the net wage before tax) as the contribution rate paid by the self-employed is higher than the employee part for dependent workers. Hence, the theoretical pension of the self-employed is slightly higher than that of employees in Austria, Greece, Hungary, Luxembourg and the Slovak Republic. In the Slovak Republic, this more than compensates the lower contribution base for the self-employed, which is set at 67% of gross earnings, leading to the contribution base being higher for the self-employed than for employees with the same taxable earnings by 10%. The United States allow the self-employed to deduct half of social security contributions before calculating the contribution base. Given that employees and employers pay equal shares of contributions, this deduction equalises theoretical pensions between the self-employed and employees.

Ireland, New Zealand and the United Kingdom which pay only flat benefits in mandatory pension schemes for employees provide the self-employed and employees with the same benefits.

Part-time work

Reduced working hours lower total earnings and ultimately pensions from earnings-related schemes. In some countries the effect of part-time work during at least part of the career on pensions might be limited depending on earnings levels, through the effects of non-contributory benefits, contribution-based basic pensions, minimum pensions and reference-wage rules for earnings-related schemes. However, the effect on pensions can be over-proportional in other countries, i.e. pensions can decrease more strongly than earnings. Such a situation can arise when minimum earnings requirements or minimum working time requirements for pensions are in place. For example, while minimum earnings requirements formally apply to all dependent workers in some countries, requirements at levels below the monthly minimum wage of full-time workers are binding only for part-timers or some temporary workers.

Minimum earnings or minimum working time requirements exist in less than half of OECD countries (Table 2.2). Germany, Japan and Korea are examples of countries with a minimum number of working hours needed to be eligible for mandatory pensions. Fourteen countries set a minimum earnings level – on a weekly, monthly, quarterly or yearly basis – to acquire entitlements to mandatory pensions (Figure 2.14), ranging from less than 5% of average earnings in Ireland and Finland to over 50% in Turkey. In Germany, while there is no minimum earnings requirement, workers with a monthly income of 450 EUR or less (so-called “minijobbers”) have the possibility to opt out of the statutory pension insurance.²⁷ Nineteen countries require neither a minimum level of earnings nor a minimum number of hours, i.e. all part-time workers are covered by pension schemes.

While minimum earnings requirements and minimum working time requirements penalise part-time workers who do not fulfil them, other part-time workers may benefit from them. This can be the case when part-time workers meet the minimum requirements by a small margin and accrue (almost) the same pension rights as full-time workers. In particular, if the requirements are set at low levels and the link between contributions and pension rights is weak, as is the case for example with minimum pension schemes based simply on validating contribution periods, many part-time workers may benefit. In such a situation, pension rules imply redistribution from full-time workers to part-time workers.

In Estonia, Hungary, Lithuania and Spain, rules exist to determine pension entitlements or eligibility to benefits for part-time workers in some particular ways. In Lithuania, every insured person must pay pension contributions on at least the monthly

Table 2.2. **Minimum earnings and working-time requirements for pension entitlement**

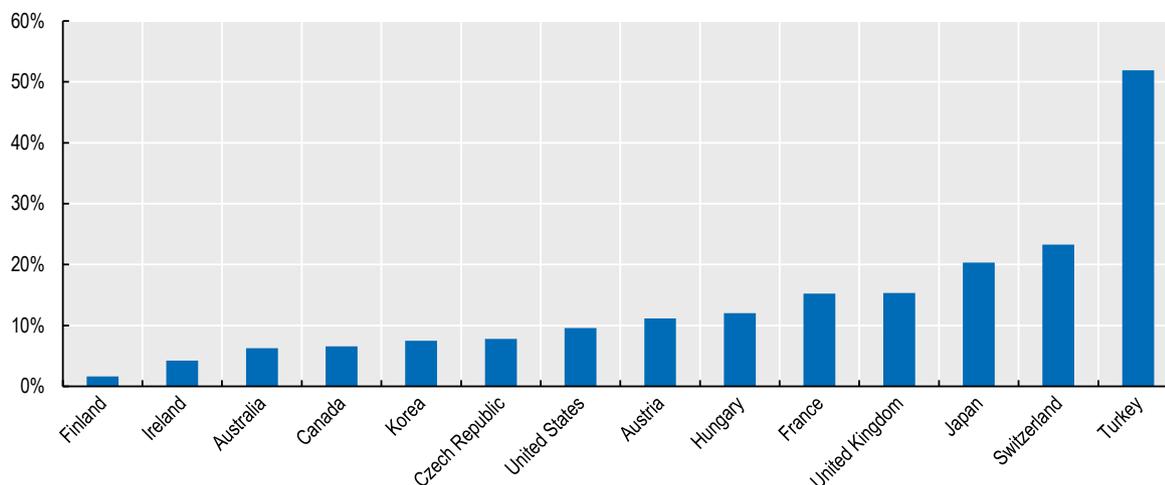
Minimum level of earnings	Minimum number of hours worked	No requirement
Australia, Austria, Canada, Czech Republic, France, Finland* **, Hungary, Ireland, Japan, Korea, Switzerland, Turkey, United Kingdom, United States	Denmark (9 hours/week), Germany (up to 3 months or 70days/year), Japan (20 hours/week), Korea (15 hours/week), Norway (funded scheme; 20% of full time)	Belgium*, Chile, Estonia, Greece, Iceland, Israel, Italy, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Poland, Portugal, Slovak Republic*, Slovenia, Spain, Sweden

Note:(*) In Belgium, working less than one-thirds and two-thirds of the full-time annual equivalent results in this year not being accounted for eligibility to early retirement and minimum pension, respectively. In the Slovak Republic the minimum level of earnings applies only to validate eligibility to minimum pensions but not to old-age pensions. (**) In Finland, there is a very low minimum threshold of earnings to be covered by pensions at 1.6% of average wage that is set for practical reasons, i.e. not to place large administrative burden on tiny tasks such as walking the neighbour's dog.

Source: Information provided by countries, MISSOC (2018^[30]), Spasova et al. (2017^[15]) and SSA (2018^[31]).

Figure 2.14. **Most countries provide no or low minimum earnings requirements to accrue entitlements**

Minimum earnings to accrue pension rights for dependent employees, % of average wage



Note: Only countries in which minimum earnings requirements exist are included in the figure.

Source: Information provided by countries, MISSOC (2018^[30]), Spasova et al. (2017^[15]) and SSA (2018^[31]).

StatLink  <https://doi.org/10.1787/888934041041>

minimum wage to validate a month for pension calculation purposes. When pension contributions are paid based on an amount below the monthly minimum wage, insurance time records are proportionally lower. Similar mechanisms exist in Estonia and Hungary for earnings below the minimum wage. In Spain, part-timers can receive higher benefits than full-time workers with the same total earnings.

Pension entitlements from part-time work can differ even though the same number of hours are worked at the same hourly wage. For example, working 3 out of 5 days per week leads to a shorter validated contribution period than working 60% of normal hours 5 days a week in some countries including Greece and Turkey that validate contribution periods on a daily basis. Other countries use longer periods: weeks (e.g. Ireland, the United Kingdom), months (e.g. Poland) or quarters (e.g. France).

In all OECD countries, workers with more than one part-time job have to pay mandatory pension contributions based on either total income from all jobs or separate income from each workplace, and receive benefits accordingly. In 2015, Belgium introduced “flexi jobs” which are available to workers and pensioners working at least 80% of full-time

hours and gaining additional income in a specific list of sectors, such as restauration. These jobs are exempt from income tax and both employee and employer pension contributions are reduced. In the Czech Republic, the income stemming from a special work contract, that permits to perform an additional job for up to 20 hours a week or up to 300 hours a year, is excluded from pension contributions and entitlements.

Temporary work

In most countries, pension insurance rules for temporary workers are aligned to the rules for standard workers. However, some countries set reduced or no pension contribution rates for temporary agency workers, young workers, seasonal workers, apprentices and/or trainees, resulting in lower entitlements. Trainees are not covered by pensions in Hungary, while temporary agency workers and contractors are excluded from pensions in Korea. In Lithuania, casual and seasonal workers on voucher-based contracts are exempt from enrolling in mandatory pensions. In Poland, temporary work regulated by civil law rather than the labour code – so-called ‘civil law contracts for a specified work’ – is not subject to mandatory pension contributions.

Even when temporary workers have the same pension rules as standard employees, they tend to have less pension coverage due to shorter employment spells. For example, occupational pension plans in the Netherlands cover workers only after six months of employment in the same company, which effectively reduces coverage of temporary workers and workers employed by temporary agencies. Additionally, vesting periods of employer contributions, i.e. the time it takes for employees to become owners of the contributions made on their behalf in occupational pensions are often over one year. In some countries, vesting periods for employer contributions in occupational pensions can even exceed three years, as in New Zealand, Turkey and the United States. Long vesting periods are a problem for temporary workers because they tend to change employers frequently. Most countries, but not all, provide options to transfer occupational schemes to other employer schemes or not to close them (without making additional contributions). Allowing to transfer entitlements from voluntary occupational to personal pension schemes is less common, but it is allowed e.g. in Canada, Denmark, Spain and the United States. Withdrawing entitlements upon contract termination is possible in a few countries (Chapter 3), losing the link with retirement purposes.

Pension credits are often granted as long as unemployed people receive unemployment benefits. Patchy employment histories can prevent temporary workers from receiving unemployment benefits, thereby magnifying the impact of career breaks on pensions. Indeed, OECD (2019^[1]) shows that non-standard workers are less often covered by unemployment benefits than standard workers. However, the picture is not uniform and OECD countries vary a lot in terms of unemployment benefit rules. The minimum contribution period required to be entitled to unemployment benefits ranges from less than six months in Canada and Iceland to more than two years in Mexico (OECD, 2018^[7]). In many cases, the eligibility conditions allow for some flexibility and, for example, Sweden requires working and contributing only in six out of the last twelve months before applying for benefits while the Slovak Republic requires working in at least 24 out of the last 48 months.

Policy changes

More than half of OECD countries have reformed pension rules for non-standard workers over the last two decades. In many cases, the reforms aimed at expanding the

coverage of the self-employed and part-timers. Earnings-related schemes have recently become mandatory for self-employed workers in Israel. Since 2012, Chile tried to include the self-employed through auto-enrolment into the funded pension scheme that is mandatory for employees, but the majority of them (80% in 2017) opted out; since 2019, pension contributions have been compulsory for the self-employed who issue invoices, except for older workers and low-income earners. In 2013, the pension coverage for some non-standard workers, such as working students, individuals on special civil-law contracts and workers performing the so-called complementary tasks (e.g. cleaning or babysitting), was expanded in both Slovenia and the Slovak Republic, and, in Slovenia only, for the self-employed with low earnings. In Germany, the current coalition agreement plans to establish mandatory pension insurance for all self-employed workers.

A few countries introduced specific regulation to limit pension coverage gaps for self-employed workers with only few major clients. While in Germany, self-employed persons who work predominantly for one client²⁸ and do not have employees have been mandatorily insured in the pension system since 1999, in Italy and Portugal the contributions of independent contractors relying on single contracts are now topped up by their clients. In addition, in Portugal if a self-employed worker depends significantly on one single client – the so-called ordering customer – the latter has to pay social security contributions for the self-employed. The contribution rate varies depending on the degree to which the worker relies on the client.²⁹

In 2019, Poland introduced specific exemptions to reduce the financial burden of minimum contribution amounts for self-employed workers with low earnings. They can set the contribution base between 30% of the minimum wage, which is five times lower than previously, and 60% of the average wage for three years within a five-year period. Pension entitlements are adjusted accordingly.

Some countries modified pension rules to increase pension coverage among part-time workers. France, Germany, Japan, Korea and Switzerland expanded the coverage of part-time workers by lowering minimum-hours and/or earnings requirements. In 2014, France lowered the earnings threshold, from the equivalent of 200 to 150 hours of work at the minimum wage per quarter. Germany expanded the pension coverage for part-timers with low earnings through auto-enrolment since 2013 (while granting them an opt-out possibility). In Japan, since 2016 employers with more than 500 employees are required to provide coverage to part-time workers working at least 20 hours a week (previously it was 30 hours) and earning more than JPY 88000 per month (20% of the average earnings). Since 2017, part-time workers in smaller firms who satisfy the conditions above have also been entitled to join earnings-related pensions if management and employees agree. Similarly, in Korea, when the National Pension was introduced in 1988, it covered only employees in workplaces with at least 10 workers who had worked for more than three months. Compulsory coverage was gradually extended to include many non-standard workers.³⁰ Switzerland also lowered the entry threshold of the occupational pensions to include more low-income workers, particularly part-time workers.³¹ In 2018, Latvia extended the mandatory pension coverage to self-employed workers with income below the minimum wage, who had been covered only voluntarily before, through mandating them to pay reduced pension contributions at 5% compared with the regular rate of 20%.

Improving pension provision for non-standard workers

Pension systems that mitigate disparities between standard and non-standard workers in terms of coverage, contributions and entitlements tend to ensure fairer

protection, reduce inequalities, pool risks as broadly as possible and facilitate labour mobility across job types. The increasing flexibility of employment arrangements and, in particular, the development of new forms of work highlight that the boundary between dependant employment and self-employment is not always clear-cut. This may challenge policymakers, where the prevalence of workers along this boundary is increasing, to adapt social protection in general, and old-age pensions in particular, to this new environment (OECD, 2018_[22]).

Non-standard work is often encouraged, for example financially, to promote entrepreneurship, to reduce informality or to offer greater flexibility for firms and even some workers. In a number of cases, non-standard work is associated with income vulnerabilities during the working age, which have repercussions on old-age income prospects. Fighting precarious forms of employment is a crucial objective, but it goes beyond the scope of pension policies analysed in this chapter. One of its extreme forms, informal employment, can be most efficiently addressed through a multi-pronged approach, aiming to increase the benefits and reduce the costs of formalisation and to strengthen enforcement mechanisms (OECD, 2015_[34]). Policies aiming at reducing if not eliminating preferential tax treatment for the self-employed while at the same time addressing tax avoidance are important to strengthen the financing of social benefit schemes and enhance their retirement income prospects. As for precarious employment, work arrangements such as successive fixed-term contracts and false self-employment might be in part the result of lower social contributions for the self-employed, raising concerns regarding social dumping (OECD, 2019_[1]; Spasova et al., 2017_[15]). These arrangements should be addressed by tackling their root causes, including the regulatory and policy settings in the labour market that de facto contribute to its segmentation and result in lower social contributions and benefits.

This section provides policy options to improve pension provisions for non-standard workers. Some problems faced by these workers, such as the impact of low lifetime earnings and of career breaks on retirement income, also affect standard workers.

Better coordinating contributory and non-contributory schemes

Well-tailored coordination of contributory and non-contributory schemes is important for pensions in general, and in particular for non-standard workers who are often not mandatorily insured. The objective of a good coordination is to ensure a good level of old-age income protection for non-standard workers as well as to provide them with incentives to contribute to pensions and build up pension entitlements.

Non-contributory first-tier pensions – i.e. residence-based basic pensions and old-age social assistance benefits – set a lower bound to old-age income, irrespective of retirees' work histories. In many countries, the level of the old-age safety net is not high enough to ensure that recipients do not fall below the poverty line, e.g. defined as 50% of median household disposable income (Chapter 6). The level of non-contributory first-tier pensions depends in theory on redistributive preferences in each country; it is the result of trading off income adequacy for the most vulnerable groups against containing financial costs and maintaining incentives to contribute to earnings-related pensions.

There are three main ways of achieving sound coordination of contributory and non-contributory schemes. First, first-tier pensions can be universal flat-rate benefits – which might depend on household composition – on top of which contributory entitlements build up. This is the case in the Netherlands and New Zealand for example. Second, the safety-

net benefit could be withdrawn progressively against the earnings-related component, as in Chile, Norway or Sweden for instance. The choice of the withdrawal rate is in itself the result of a trade-off. A low rate implies a more universal coverage, limits stigma associated with benefiting from the safety net and lowers disincentives to contribute to pensions. However, it implies also that the safety net is not tightly targeted, therefore generating higher costs for public finances. The third case is the combination of the two others: one part is universal and the other is withdrawn against the earnings-related component, as for example in Canada, Denmark and Iceland.

Well-coordinated schemes based on either one of the three settings above ensure in a transparent way that every entitlement provides some additional protection beyond the old-age safety net, which is available to people who never contributed to earnings-related pensions. While every old-age individual, including people with career histories in non-standard employment, receives some minimum benefits, additional amounts are paid in relation with contribution histories.

Simple entitlement rules in contributory pensions greatly facilitate a good coordination of contributory and non-contributory schemes. Emphasising the importance of a good coordination for non-standard workers thus strengthens the case against complex rules. Ensuring that all labour income at least up to a high enough threshold and all periods of non-standard work generates pension entitlements is an important step towards pension adequacy for non-standard workers.

Improving access to pensions for vulnerable non-standard workers

Appropriate compliance measures are essential to improve access to pensions for non-standard workers. Non-standard work in general, and platform work in particular, is indeed more subject to informality than standard employment. Large fines for non-compliance cannot offset the weak enforcement of mandatory contributions (Kanbur and Ronconi, 2018^[35]), which seems to be an issue in Chile for example (Valdés-Prieto and Leyton, 2019^[12]). From a technical perspective, more and more data to improve compliance are becoming available from both public (tax and social security registers) and private (e.g. banking, platform work) sources, and more efficient algorithms (e.g. artificial intelligence) have the potential of targeting labour and tax inspections more efficiently. However, the use of such data raises privacy concerns and would in addition require increasing public administration capabilities and an improved coordination of labour, social security and tax administration (OECD, 2008^[36]).³²

New forms of work often fall into the shadow area between dependent and independent employment. In several countries such as Austria and the United Kingdom there is a major legal dispute around the question whether platform workers are employees or self-employed. When they are classified as employees, platforms may be required to pay the employer part of pension contributions. In addition, in the area of occupational pensions, platforms might also be required to offer occupational pension plans and pay matched employers contributions, as with workers in standard employment.

For the false self-employed, who are hired as self-employed but de facto perform dependent work, properly classifying them as dependent employees would improve pension protection. It often requires only enforcing the existing labour code. Spasova et al. (2017^[15]) suggest to increase fines and impose retroactive payments of contributions for employers who make use of false self-employment. Some countries implement alternative

but complex solutions for some self-employed, e.g. free-lancers, who heavily depend on single clients by making the clients pay the employer part of the contributions or by levying contributions on selected products e.g. publications.³³ For voluntary pension schemes – in particular those with auto-enrolment – contributions paid by clients can substantially increase coverage, similar to what is the case for matching contributions paid by the employers. However, such solutions complicate the pension system.

Moreover, policy that seeks equal treatment of all labour income implies that temporary work contracts should not be excluded from mandatory pension protection, irrespective of their duration, and that no minimum tenure for acquiring pension entitlements should exist. Currently, agency work, zero-hour contracts and seasonal work are not covered in some countries and minimum tenure requirements are not uncommon.

Contributory first-tier pensions (contribution-based basic and minimum pensions), which exist in about half of OECD countries, increase old-age benefits based on the length of the contribution history. This redistributive instrument potentially benefits part-time workers substantially depending on the rules to validate contribution periods.

For standard workers, the effect of career breaks on pensions depends on how tightly entitlements are linked to earnings and on the instruments at hand to cushion employment shocks, such as pension credits during unemployment. On average across countries, slightly more than one-third of employment shocks are transmitted to pension income: pensions for standard workers decrease by about 1.3% for each year out of employment on average across OECD countries (Figure 5.12 in Chapter 5) while they would decrease by about 2.7% with a one-to-one link between earnings and pensions.

For non-standard workers, the impact on earnings-related pensions is larger, i.e. pension entitlements in the case of job losses are lower, because they tend to receive lower unemployment benefits, which results in lower pension entitlements. First, non-standard workers might lack direct access to unemployment protection (e.g. many types of self-employed workers and some groups of temporary workers are not covered by unemployment insurance). Second, they often have shorter work spells, which results in a lower maximum length of unemployment benefits and/or lower benefits. Pension policies cannot insure against all shocks that occur in the labour market, and the source of this transmission may be addressed more directly through unemployment policies for non-standard workers.

Mandating pensions for the self-employed?

Earnings-related schemes for standard workers are typically mandatory for two main reasons, which equally apply to the self-employed. First, due to short-sighted behaviour people left to themselves often under-save for retirement, for example because they underestimate their long-term needs. This feature motivates the paternalistic approach according to which contributions should be mandatory. The self-employed are similarly prone to myopic behaviour as dependent employees. Second, providing effective protection against old-age income risks relies on having access to a broad pool of contributors. This is important for the pension provider's capacity to insure for example longevity risks, i.e. the risks that some people live longer than what their individual contributions can finance. Besides, fully including all non-standard workers in mandatory pensions in the same way as standard workers limits the financial incentives employers and workers might have to misuse non-standard employment to lower labour costs.

It is sometimes argued that the self-employed have more financial assets, potentially related to their business activity, or even more housing assets, which would give them good reasons not to contribute to pensions. Such arguments should be rejected.

As discussed in earlier sections of this chapter, the self-employed are a very diverse group, and these considerations regarding exemptions from mandatory pensions would apply only to the wealthiest among them. Policies grounded in such arguments would require complex asset tests – potentially based on future assets; in addition, it could raise the question why wealthy standard workers should not be excluded from mandatory pensions as well. Excluding some groups of workers based on high incomes or high (future) assets is difficult to justify. An equal treatment in terms of pension insurance also requires that any redistributive feature benefitting non-standard workers is broadly shared, i.e. not financed by contributions from standard workers only.

To achieve pension adequacy for more workers, voluntary occupational schemes could be available for all contract types through default plans in countries where they are available for dependent workers. Equal treatment could also apply to auto-enrolment schemes. Opt-out rates might be higher for non-standard workers, and contributions of self-employed workers cannot be matched by employers, contrary to what is the case for dependent employees. Nevertheless, non-standard workers are probably as malleable as standard workers to nudging. In particular, contributions could be automatically deducted when taxes are collected.

Moving towards harmonisation

As discussed before, there are good arguments in favour of harmonising pension rules broadly between dependent and independent workers. Aligning pension rules across work types implies that total contribution rates are equalised for all workers, with the self-employed paying the sum of employee and employer contributions. One serious obstacle towards a full harmonisation relates to the assessment of the contribution base for the self-employed (see next sub-section).

Lower contribution rates for the self-employed are used explicitly or implicitly in some countries to make self-employment economically attractive and to reduce incentives for informality. If the lower contributions are not offset by public subsidies, such policies might bear social costs, however, to the extent that they imply lower future benefits. In that case, achieving their objective of promoting self-employment is facilitated by the underestimation by the self-employed of their needs in old age; i.e. by short-sighted behaviours.

Lower pension contributions generating lower pension entitlements should not be used as an instrument to promote self-employment. Rules defining pensionable earnings should be harmonised as much as possible between dependent and independent workers, and pensionable earnings should generate the same entitlements based on the same total contribution rate. The main question then is who pays the missing contributions.

Social policies can be designed to account for the fact that some vulnerable self-employed cannot afford full pension contributions. In this case, the possibility to contribute at a lower rate should be part of an explicit redistributive policy. The lower rate should be compensated by a subsidised contribution component, financed by taxes or the pool of pension contributions, at least for low earners. In other words, allowing the self-employed to pay a lower total contribution rate should take into account the financial cost of this

policy. If not offset by public subsidies, this cost will be revealed as a social cost in the long term, penalising retirees who were encouraged to become self-employed workers.

Likewise, when special pension and tax regimes exist for self-employed workers with limited income (e.g. microenterprises in France and Latvia, or flat-rate contribution regimes in Hungary, Lithuania and Slovenia) or for economically dependent self-employed workers (e.g. in Germany, Italy, Spain or Portugal) it is particularly important to ensure that these regimes do not involve lower pension contributions unless they are topped up. That is, simplified pension or tax regimes should not lead to lower pensions.

Better harmonisation of pension rules between standard and non-standard workers facilitates the portability of pensions across jobs and companies. The importance of pension portability is highlighted by more frequent job switches among non-standard workers and the large number of non-standard workers who combine several jobs of various types. Personal individual accounts can be helpful to ensure full portability of private pension entitlements of non-standard workers (Hu and Stewart, 2009^[37]).

... while recognising that fully harmonising the contribution base is difficult

Fully aligning the contribution base of the self-employed to that of employees is not possible. For employees, contribution rates – both the employee and employer parts – apply to the gross wage, which does not have an equivalent for the self-employed. For the latter, the contribution base is either determined by (a part of) revenue or income, i.e. after deduction of costs, or not strictly linked to income categories. The choice of the contribution base directly influences how pension entitlements are built.

Beyond the possibility that may exist to under-report revenue, the self-employed often enjoy additional flexibility. They may have wide options to deduct work-related expenses, divide income into labour and capital shares and in some cases freely choose contribution bases. For self-employed workers with limited material costs and capital requirements such as some free-lancers and platform workers, total revenue, or a fraction of it, would be the most reliable contribution base. Revenue as contribution base has also the advantage of limiting the administrative burden related to the often complex cost deductions in tax accounting. In particular, low earners are disadvantaged by the fixed costs of proper cost documentation (OECD, 2008^[36]). However, using revenue as the contribution base for all self-employed workers would be inappropriate, especially in cases when material and capital costs are high, and would result in an unequal treatment of different types of self-employment. Hence, for self-employed workers with substantial material costs, such as sole traders, income is a more appropriate contribution base.

In general, using income as the contribution base largely ensures equal treatment among different types of self-employed. Income net of social security contributions (taxable income) is, as a concept, closer to net wages before tax and thus allows for closer harmonisation of pension rules. However, applying the harmonised contribution rates to taxable income leads to lower contributions because taxable income is net of all contributions whereas the gross wage is only net of employer's contributions. For example, if the total contribution rate for employees is 20%, equally split between the employee and employer, then a gross wage of 100 corresponds to a net wage before tax of 90, with total contributions of 20. If the self-employed with the same taxable income of 90 effectively pay a 20% contribution rate on taxable income, then total contributions equal $20\% \times 90 = 18$, lower than total contributions paid for employees. A higher degree of harmonisation might be reached by setting a higher nominal contribution rate for the self-employed to account for the difference between gross and net wages before tax (22.2% on taxable income in the

above example to reach contributions of 20, as $20/90 = 22.2\%$). For the same reason, applying the harmonised contribution rates to gross income (before deducting any contributions) leads to higher contributions because gross income – as opposed to gross wage – includes total contributions.

Harmonisation can thus be improved by applying a *higher nominal* contribution rate to the taxable income of the self-employed, but this is likely to be politically difficult to implement. Alternatively, the total contribution rate can be applied to rescaled taxable income or part of gross income.³⁴ Yet, another option is to use the *taxable income* as the contribution base for both employees and the self-employed, which is the case in Sweden for public pensions.

Limiting the large degree of flexibility in defining the contribution base also helps aligning pension rules for self-employed and dependent workers. However, limiting flexibility in setting the contribution base might not be sufficient to prevent low levels of contributions in practice and appropriate compliance measures might be needed, e.g. in the form of rigorous labour inspections. In Italy, an innovative approach to controlling income was implemented: the reported income of the self-employed was compared to their estimated profits and actual living standards, thereby permitting to identify cases of tax underreporting more easily (Bucci, 2019_[27]).

Conclusion

Non-standard work refers to a very diverse group of workers, with the most common forms of non-standard work being self-employment, part-time work and temporary employment. Non-standard employment accounts for more than one-third of employment in the OECD. Part-time work is three-times more frequent among women than among men and self-employment is particularly frequent among older workers.

Globalisation, automation and demographic changes transform labour markets at a rapid pace. There has been an expansion of new forms of non-standard work, in particular jobs relying on new technologies such as platform-based taxi driving. In many cases, non-standard work is associated with lower income and tends to be persistent, which typically affects workers' financial long-term prospects.

While the debate on pensions for non-standard workers is not new, the way non-standard workers are covered by pension systems might become a topic of growing importance. As most pension systems were built on the premise of stable, linear careers, the development of new forms of work raises concerns about the old-age income of future generations of retirees. Yet, the recent evolution of labour markets calls for more inclusive and harmonised pensions for all rather than for a radical shift in designing and financing pensions.

Pension rules for non-standard workers vary substantially across countries, are often particularly complex and differ from the rules for standard workers in many countries. The self-employed, in particular, are the group that raises the most challenging issues in terms of pension coverage because they do not have employment contracts that can be used as the basis for pension contributions. Some new forms of work raise similar challenges while being in addition more prone to informality. Yet, pension systems should be designed to mitigate disparities between standard and non-standard workers in terms of coverage, contributions and entitlements so as to protect against old-age poverty, smooth the living standards upon retirement, ensure fair treatment, pool risks as broadly as possible and facilitate labour mobility across job types.

The **main findings** of this Chapter are the following.

Self-employment

- The self-employed contribute less to old-age pensions than employees and receive lower pension benefits when they retire. On average across 15 OECD countries, the retired self-employed receive, at the median, 22% lower public pensions than retired employees.
- Even though the self-employed possess somewhat higher assets than employees, their additional assets are generally insufficient to make up for the lower level of pension benefits.
- The self-employed are required to contribute to mandatory earnings-related pensions in a similar way as employees in only 10 OECD countries.
- Even when pension rules are similar for dependent employees and self-employed workers, pension contributions can differ substantially because the contribution base, i.e. the earnings taken into account to calculate contributions, is not identical for both types of workers.
- In 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, discretion in setting their income base or minimum income thresholds. Latvia, Poland, Spain and Turkey, for example, have discretion in choosing their income base within given brackets.
- In 6 countries - Australia, Denmark, Germany, Japan, Mexico and the Netherlands - the self-employed are not required to join earnings-related schemes, contrary to employees.
- Most countries use some income-related measure as the contribution base for the self-employed. A number of countries apply the contribution rate to a fraction of income only, e.g. 50% in the Czech Republic, 67% in the Slovak Republic or 75% in Slovenia.
- Most countries set minimum contribution bases or minimum income thresholds. Minimum contribution bases ensure that the self-employed contribute at least some minimum amounts, but they imply that the effective contribution rate is high for low earners. They range from 10% of the average wage or less in Canada, Korea, Norway, Sweden, Switzerland and the United States to 60% in Poland and Slovenia. Minimum income thresholds, which reduce pension coverage of the self-employed with low earnings, exist in eight OECD countries, from 11% of the average wage in Ireland to around 50% in the Slovak Republic and Turkey.
- In half of countries with earmarked pension contributions, the self-employed pay a contribution rate that is equal to the sum of employee and employer contribution rates for employees in mandatory schemes. In the other countries, including France, Italy and Switzerland, contributions rates are lower for the self-employed.
- Self-employed workers with income net of social security contributions equal to the net average wage will receive, after paying during a full career only the contributions that are mandatory, an old-age pension equal to 79% of the theoretical pension of the average-wage private-sector employee on average in the OECD. This relative pension ranges from less than 50% in Denmark, Japan, Mexico, the Netherlands and Spain to more than 90% in more than one-third of countries: Austria, Canada, Finland, Greece, Hungary, Ireland, Korea, Lithuania, Luxembourg, New Zealand, the Slovak Republic, Slovenia, the United Kingdom and the United States.
- In New Zealand, Poland, Turkey and the United Kingdom, employees are automatically enrolled in workplace pensions, while the self-employed are not.

- Contribution rates may vary considerably within countries across categories of self-employment, as in France, Germany, Italy and the Netherlands. Austria, Finland, France, Germany, Greece, Poland and Spain have special schemes for farmers for example.
- A number of countries, including Germany, Italy and Portugal, introduced specific regulation to limit pension coverage gaps for self-employed workers with only few major clients.

Part-time work

- One in three part-time workers in OECD countries would have preferred to work longer hours, while about two out of three work part-time by choice. Among workers aged 65-74, about one-third work part-time.
- Part-time workers can benefit from redistributive mechanisms within pension systems through non-contributory benefits, minimum pensions, contributory-based basic pensions and reference-wage rules for defined benefit schemes. While pension rules for part-time workers tend to be in line with those for standard workers, minimum earnings and minimum working time requirements for pension right accruals prevent part-time workers who fail to meet them from building up pension entitlements.
- Minimum earnings and minimum working time requirements exist in about half of OECD countries. Denmark, Germany, Japan, Korea and Norway require minimum working hours to be eligible for mandatory pensions, while 14 countries set a minimum earnings level to acquire entitlements to mandatory pensions, from less than 5% of average earnings in Finland and Ireland to over 50% in Turkey.

Temporary work

- In most countries, pension insurance rules for temporary workers are aligned to the rules for standard workers. However, some countries, including Hungary, Korea, Lithuania and Poland set reduced or no pension contribution rates for temporary agency workers, young workers, seasonal workers, apprentices and/or trainees, resulting in lower entitlements.
- Even when pension rules for temporary workers and standard workers are fully harmonised, temporary workers face lower pensions because they are out of employment more often and generally build up less pension entitlements while unemployed.
- Long vesting periods are a problem for temporary workers due to short job tenure. Vesting periods for employer contributions in occupational pensions can exceed three years in several countries, including New Zealand, Turkey and the United States.

In analysing the challenges raised by pensions for non-standard workers, the following **policy implications** emerge.

- A well-coordinated system of contributory and non-contributory pension schemes, particularly important for the self-employed and individuals undertaking new forms of work, can be achieved to ensure a high level of old-age safety net while providing clear incentives to contribute to earnings-related pensions.
- Simple entitlement rules in contributory pensions greatly facilitate the coordination of contributory and non-contributory schemes.
- To remove barriers and exclusions that temporary and part-time workers face in meeting pension eligibility conditions, minimum earnings and minimum working time requirements for pensions should be set at sufficiently low levels. Policy that seeks equal treatment of all labour income implies that temporary work contracts should not be

excluded from mandatory pension protection, irrespective of their duration, and that no minimum tenure for acquiring pension entitlements should exist.

- The reasons supporting mandatory pensions for dependent employees apply to the self-employed similarly. Moreover, fully including all non-standard workers in mandatory pensions in the same way as standard workers limits the financial incentives employers and workers might have to misuse non-standard employment to lower labour costs.
- Aligning pension rules across work types means that total contribution rates are equalised for all workers. In particular, the guiding principle should be that the self-employed pay the sum of employee and employer contributions. Voluntary occupational schemes should be available for all contract types through default plans in countries where they are available for dependent workers. Equal treatment could also apply to auto-enrolment schemes.
- If lower mandatory pension contributions for the self-employed are used as an instrument to promote self-employment or to achieve some social policy objectives, resulting lower pension entitlements should be avoided by topping up the lower implied contributions through subsidies, at least for low earners.
- The contribution base for the self-employed that might realistically ensure the highest degree of harmonisation with employees and across the large variety of self-employed is taxable income. Full harmonisation based on taxable income would imply a higher total nominal contribution rate for the self-employment or the same contribution rate on taxable income rescaled to better correspond to the gross wage. An alternative would be to apply the same contribution rate to a share of gross income. Serious limitations of contribution bases based on income come from the absence of simple solutions to separate labour and capital income for the self-employed as well as the large differences in deductible costs between the self-employed and employees.
- Limiting the large degree of flexibility in defining the contribution base is one step towards aligning pension rules for self-employed and dependent workers. However, formally limiting flexibility in setting the contribution base might not be sufficient to prevent low levels of contributions and appropriate compliance measures might be needed.
- Pension policies cannot insure against all shocks that occur in the labour market. When the source of the transmission from non-standard work to low pension entitlements is low unemployment insurance, this may be more directly addressed by changing unemployment policies.

Notes

1. The survey data on income of the self-employed are prone to underestimation. For example, Di Marco (2006_[43]) argues their income was underestimated by 12% in the early waves of EU-SILC.
2. OECD/EU (2017_[41]) shows lower durability of self-employed businesses compared to the self-employment status as the self-employed might switch between business while remaining self-employed.
3. In addition, temporary employment can have a long-term impact on earnings, as e.g. in Spain where temporary employment spells lowered earnings even 27 years later (García-Pérez, Marinescu and Vall Castello, 2018_[49]).
4. The income from self-employment is classified as the main source of income if it amounts to at least two-thirds of a self-employed worker's yearly earnings.

5. Combing different forms of employment is even more common among workers in new forms of work. In the United Kingdom, 58% of gig-economy workers are permanent employees engaging in gig economy to top up their income (CIPD, 2017_[46]).
6. Source: Information provided by countries and Spasova et al. (2017_[15]).
7. This is based on the data from Pettinicchi and Börsch-Supan (2019_[13]). The authors do not account for differences in characteristics between employees and the self-employed. The retired (or former) self-employed and retired (or former) employees refer to retired persons who spent more than half of their working life as self-employed or employees, respectively. This classification is based on the retrospective questions about past employment spells longer than 6 months using Sharelife or wave 7 of Share.
8. The self-employed often do not have access to occupational pensions, and when they do, access conditions are less favourable. For example, dedicated pension plans for some groups of the self-employed rarely supply financial-education tools for managing savings comparable to those provided by employers (Transamerica, 2019_[8]). In addition, automatic enrolment in workplace pensions is less common for the self-employed, e.g. in New Zealand, Poland and the United Kingdom. Even when automatic enrolment is in place, the lack of employer (matching) contributions removes an important incentive to participate.
9. Source: OECD computations based on data by Pettinicchi and Börsch-Supan (2019_[13]), originally computed with the SHARE survey data.
10. This might be due to less old-age social protection for the self-employed, but this could also result from cohort effects, i.e. the fact that the earnings gaps of the current self-employed might be lower than in the past.
11. Net liquid assets do not include important elements of total wealth such as real estate, mortgages or the value of own businesses, but include financial assets such as stocks or bonds and the money earned when selling out a business.
12. In the United States, 40% of the self-employed expect to receive 401k or 403k pensions vs 67% of employees (Transamerica, 2019_[8]).
13. Further evidence from the Netherlands suggests that, upon retirement, the self-employed experience a larger drop in income – net of housing costs – than employees, amounting to 24% against 17% at median. This 7 percentage-point difference is driven by lower occupational pensions, which by themselves would yield a difference of 22 percentage points. Yet, many self-employed workers pay off their mortgages before retiring, thereby lowering the difference by 5 percentage points. Higher private savings of the self-employed reduce the difference by a further 8 percentage points. The remaining 2 percentage points are due to basic pensions (Zwinkels et al., 2017_[47]). Mastrogiacomo and Alessie (2015_[38]) also showed that the self-employed in the Netherlands have limited voluntary retirement savings.
14. Also other redistributive features of pensions incentivise exploiting the flexibility in setting the contribution base to lower the contributions. This might occur in numerous earnings-related schemes where contributions paid increase more strongly with income than pension entitlements, as in the Czech Republic or Norway for example. By contrast, in schemes with a very limited degree of redistribution, such as basic pensions financed by flat-rate contributions in Japan, this problem does not arise.
15. The inseparability of labour and capital income has given rise to inconsistencies. For example, income from self-employment is often treated as labour income for social security contributions while it is treated as capital income in national accounts (Gollin, 2002_[40]).
16. In addition, self-employed workers with low incomes often have lower bargaining power than low-income employees. First, a minimum wage for the self-employed does not exist. Second, competition laws typically prevent the self-employed from organising bargaining activities collectively whereas employees can enrol in trade unions. Workers in false or non-voluntary self-employment might not have any obvious alternative to accepting unfavourable contracts (OECD, 2019_[1]). The poor income situation of many self-employed workers is not a new phenomenon, however. The topic was already of major political concern in the 1990s (Freedman and Chamberlain, 1997_[39]) and it was even discussed as early as in the 1940s (Wynn and Paz-Fuchs, 2019_[45]). By contrast, workers with high earning potential can earn more when independent as they are not subject to wage policies, which sometimes compress wages. Indeed, almost half of the self-employed in the United States point to higher earnings as a reason for working independently (Transamerica, 2019_[8]).

17. In Ireland, Japan, the Netherlands and the United Kingdom the self-employed mandatorily contribute only towards basic pensions.
18. In Poland, the employees are auto-enrolled to the Employees Capital Plans, which is a long-term savings scheme from which assets can be withdrawn after reaching the age of 60 as opposed to Employee Pension Programs which are voluntary.
19. In order to circumvent this problem, Finland imposes a constraint which is, however, difficult to verify: the contribution base “must correspond to a wage that would be paid if the work of the self-employed was carried out by another, equally competent person in place of the self-employed” (<https://www.etk.fi/en/the-pension-system/pension-security/pension-coverage-and-insurance/self-employed/>).
20. Most countries also set a ceiling to contribution bases, in line with what is the case for dependent employees.
21. Although they can join voluntarily in some countries as in Chile for example.
22. Lithuania does not provide a strict minimum threshold but, if contributions are below the minimum wage, reduced periods are credited.
23. In Portugal, social security contributions amount to 21.4% of average reference income for most types of self-employed workers, but the contribution rate is higher for specific types of self-employed and can reach 25.1%. In Austria, farmers pay a rate of 17%, while other self-employed workers pay 18.5%; both benefit from a so-called partner-contribution from the federal budget amounting to 5.8% and 4.3%, respectively.
24. First-tier benefits are taken into account in these projections, but neither the voluntary schemes nor those that are mandatory for only some specific groups of the self-employed, e.g. liberal professions or farmers, are.
25. This is despite the fact that a taxable income, which is net of all contributions and of many work-related expenses that a self-employed can deduct, that corresponds to the average gross wage tends to imply that this self-employed individual earns more than the average-wage worker “all else equal” (Figure 2.10).
26. In Chile, the contribution rates of the self-employed will increase from 2.7% in 2018 to reach 10% in 2028, i.e. the level of employees.
27. If they make use of this option, only the employer pays contributions to the statutory pension scheme and pensions will be proportionally lower.
28. Which is considered to be the case if at least 83.3% of their work income stems from one client.
29. In Portugal, when self-employed workers receive between 50% and 79% of their income from one single ordering customer, a social security contribution rate of 7% applies since 2019. The rate increases to 10% when they receive 80% of their income or more from one ordering customer. Below 50%, customers do not pay contributions. Before 2019, ordering customers paid a contribution rate of 5% in case self-employed workers received at least 80% of their income from them and nothing if it was less. By contrast, Spain introduced in 2007 a special category of dependent self-employed (*trabajador autónomo económicamente dependiente*, TRADE) for those receiving at least 75% of revenue from a single client, without introducing any special pension rules for them.
30. Employees working at least 80 hours per month were included in 2003, at least 60 hours in 2010, and non-standard workers working at least 8 days per month in 2018.
31. Furthermore, the government started to earmark 12% of the financial aids paid to artists to their pension scheme.
32. The analysis of policies targeted at improving compliance with contribution obligations (OECD, 2019^[44]; Mineva and Stefanov, 2018^[41]) as well as with verifying revenues and costs of the self-employed goes beyond the scope of this chapter (see (OECD, 2018^[42]; Bigio and Zilberman, 2011^[50]) for more detail).
33. Such solutions may reduce the net income of self-employed less than when they pay contributions fully by themselves, as there is some evidence that employer-borne payroll taxes are not fully passed through to net wages (Saez, Schoefer and Seim, 2019^[48]).
34. Given contribution rates of employees (c_e) and employers (c_r), the total contributions paid for an employee are $W_g(c_r + c_e)$, W_g denoting the gross wage. When expressed in terms of the net wage before tax (W_n), these equal $(c_r + c_e)W_n/(1 - c_e)$. If the contribution rate of a self-employed worker (c_{se}) is applied to taxable income (I_n) then contributions equal $c_{se}I_n$. When the taxable

income of a self-employed worker is equal to net wage before taxes of a dependent employee, both pay the same contributions if $c_{se} = \frac{(c_r + c_e)}{(1 - c_e)}$. This implies that the contribution rate of the self-employed applied to taxable income should be larger than the total contribution rate that applies to employees' gross wages ($c_{se} > c_r + c_e$). Alternatively for equal contribution rates between the self-employed and employees ($c_{se} = c_r + c_e$) with the same taxable income, equalising total contributions requires adjusting contribution bases: $I_b = \frac{I_n}{1 - c_e} = \frac{I_g - I_b(c_r + c_e)}{1 - c_e} = \frac{I_g}{1 + c_r}$. Hence, fully harmonising contributions between the self-employed and employees requires to rescale the taxable income by $\frac{1}{1 - c_e}$ or include only a share of gross income: $\frac{1}{1 + c_r}$.

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From:
Pensions at a Glance 2019
OECD and G20 Indicators

Access the complete publication at:
<https://doi.org/10.1787/b6d3dcfc-en>

Please cite this chapter as:

OECD (2019), “Non-standard forms of work and pensions”, in *Pensions at a Glance 2019: OECD and G20 Indicators*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/5ffa7926-en>

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