Rising platform work

Scope, insurance coverage and good practices among ISSA countries

German Federal Pension Insurance
Berlin

Technical Commission on Old-Age, Invalidity and Survivors’ Insurance
International Social Security Association
Geneva
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Executive Summary

Digitalization and its consequences for the Future of Work are a main global challenge for social security (ISSA, 2016). In particular, the emergence of digital work platforms (such as Uber or Upwork) has raised concerns about the sustainability and adequacy of social protection. The aim of this International Social Security Association (ISSA) project is, therefore, to assess the scope and insurance coverage of platform work. Additionally, it discusses good practices for social security to adapt to the expected rise in platform work. The project is based on a large cross-country survey of 30 social insurance institutions.

The report shows that platform work is a heterogeneous phenomenon involving simple, low paid jobs as well as highly specialized, well-remunerated tasks. Differences occur also in terms of work location. A part of services is provided purely online (e.g. Upwork), while others are delivered only locally (e.g. Uber). Participation in platform work has risen rapidly over the past years, but is still small in size. Most available studies – mainly from developing countries – estimate that around 1 per cent of adult population is active in this new work form. A number of factors, however, speak in favour of a further growth. Platform workers often earn only an extra income from this new work form. Only about a quarter receives their main income from platform work. Higher shares are reported for developing countries. Hourly earnings differ but are often close to or below minimum wages in developed countries.

Classification of platform work is fiercely debated, but less of an issue if social insurance coverage of self-employed and employed is aligned. In most countries surveyed self-employed platform work income is legally covered by statutory pension

1 The author would like to thank his colleagues from the TC Pension, ISSA, ESIP, IMF, BMAS and OECD for their valuable comments and contributions throughout this project. He is also very grateful for the comprehensive survey responses from 30 ISSA institutions worldwide.

Christoph Freudenberg,
Technical Commission on Old-age, Invalidity and Survivors’ Insurance
insurance. This is, however, often only the case if certain conditions, such as minimum income thresholds, are met. As consequence, income of side-jobbers – who represent the majority of platform workers – is often uncovered in about two thirds of countries. Effective insurance coverage seems to be even lower than legal coverage. This indicates that platform workers have limited information, resources and/or willingness to participate in available social protection schemes.

The study presents various good practices from International Social Security Association (ISSA) countries to raise effective social insurance coverage of platform workers. This includes income reporting and contribution collection initiatives as well as digital information campaigns. These examples demonstrate the great potential of the platform economy to increase social protection coverage – in particular in developing countries with a large informal sector. At the same time, the gig economy raises new questions for social security, such as how to cover platform work provided purely online and across borders.

1. Introduction

Digitalization and its consequences for the Future of Work rank high on the political agenda (International Labour Office (ILO), 2018; ISSA, 2016; Organisation for Economic Co-operation and Development (OECD), 2016). A key element in this discussion are new digital markets, so called platforms which grew rapidly over the past decade. They enable the exchange of services (e.g. Uber or Upwork) and goods (e.g. Amazon) often in a purely digital framework. The rising Platform Economy may pose a challenge for social security schemes. Incomes from these new economic activities often appear to be legally or effectively not covered by social insurance. A growth in the platform economy may, therefore, cause an erosion of the financing base of social security schemes and ultimately may lead to inadequate social protection of the workers involved.

Against this backdrop, the International Social Security Association (ISSA) identified “Labour Markets and the Digital Economy” as a key global challenge and as a priority topic for the current ISSA triennium 2017-2019. Within this framework, the aim of the ISSA Technical Commission on Old-age, Invalidity and Survivors’ Insurance (TC Pension) is to assess the emergence of new digital work forms and their implications for social security. Thereby, a focus is set on 1) platform work (e.g. Uber or Deliveroo) and 2) their coverage in social insurance (particularly in pension schemes). The project is based on a comprehensive literature review and has benefitted from a survey of 30 public pension institutions worldwide – to our knowledge the largest cross-country survey on the social protection of platform workers so far.

The aim of this first report is to answer the following questions.

2. What is platform work? – A classification

New work platforms, such as Uber or Deliveroo, are widely debated in the media and academia with very different labels being used, such as, Sharing Economy, Collaborative Economy, Gig Economy or Crowd Work. Being a relatively young phenomenon, a consistent classification is still missing and key terms are defined very differently. Against this backdrop, Box 1 provides a short definition of the main labels used in the discussion of platform work and in this study. It should be noted that we focus only on platforms which provide services, platforms which sell goods or provide access to the latter are disregarded. It is discusssable whether to consider...
accommodation services, such as Airbnb, as platform work. In the study at hand they are not included under this label.

Platform work involves very heterogeneous tasks. This aspect is crucial for the discussion of appropriate social protection of these new work forms. A first differentiation concerns the work location. Some platform work covers non-manual, online services where both the work and work organization is carried out digitally (Huws, 2017). They can, therefore, be provided from all over the world and often users and providers do not interact vis-à-vis. Other platforms offer local services which, generally, involve physical work, such as food delivery, household or transport services. In the latter platforms only the work organization is digitized. They are also referred to as work on demand via apps. A further differentiation concerns the distribution of work. Local services are, usually, carried out by selected individuals rather than by a crowd of people. Online tasks, on the contrary, are more often assigned to a large pool of individuals, like in the case of the platform Crowdsource.

Differences occur also in terms of the task complexity. Platform work is often associated with simple, low skilled tasks, such as tagging photos or completing surveys (micro tasks), “which still require some sort of judgement beyond the understanding of artificial intelligence” (De Stefano, 2016, 2). Less discussed are, on the contrary, platforms which intermediate complex, higher skilled tasks, such as Upwork or Freelancer. They intermediate work which often involves comprehensive and time consuming projects (macro tasks) and which are higher remunerated (see section 5). This includes platforms providing legal services or management consultancy (such as UK Axiom or McCallum) which increasingly compete with companies such as McKinsey or Deloitte. As outlined later in section 3, macro task platform are by far the largest platforms in terms of workers registered (see Table 2).

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**Box 1 Definition of key terms**

The terms Sharing and Collaborative Economy are often used synonymously and stand for a wider social trend. Typical for these ‘markets’ is that consumers exchange, borrow, rent or trade goods and services between each other (peer-to-peer). Thereby, companies may be involved as an intermediary or platform (such as Ebay). Some authors (Degryse, 2016, 27ff) limit the sharing economy to interactions which take place without any profit.

The term Platform Economy is usually defined very similarly to the above. It refers to the provision of services (Platform Work) and/or access to goods via digital platforms. These interaction may involve the payment of fees or remunerations. Thereby, the matching of providers and users is based on algorithms and new technologies which minimize transaction costs and therefore allow also micro-transactions. Information about providers is often enhanced with electronic rating and monitoring systems (Drahokoupil and Fabo, 2016).

Characteristic for Platform Work is that it involves well defined tasks and projects, so called gigs, instead of a continuous employment relationship. Therefore, also the phrase Gig-Economy is used as a synonym for platform work activities (De Stefano, 2016, 1). We follow this definition in the study at hand.

Work intermediated via platforms is also referred to as Crowdwork as it is often offered to a large pool of individuals (Felstiner, 2011; Saxton et al. 2013). Crowdwork is part of the larger phenomenon of

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2 Under a wider definition also companies may take the role of the user and/or provider, see: Wosskow (2014); Sundararajan (2014); Rifkin (2014).
Crowdsourcing (Barnes et al., 2013) which is defined as “the act of outsourcing a function once performed internally in a … institution to a network of people in a form of an open call” (Howe, 2006).³

The role of platforms in the economic transaction differs widely (also affecting their classification, see Section 6). Some platforms function only as a simple intermediary (e.g. Upwork) which facilitates a matching of demand and labour supply just like a traditional notice in the local supermarket. Others are central actors and interfere strongly in the economic transaction, for instance, by coordinating the definition, submission, acceptance and payment of for the work done (e.g. Uber or Luxe) (Sundararajan, 2016, p.77f.).

3. What is the current dimension of platform work across ISSA countries?

How sizeable is the platform work economy? Most ISSA members have no information to answer this question (80 per cent in our ISSA survey, presented in section 7). This fact is not surprising as empirical estimates are still limited and have been provided mainly for the US and selected EU countries (see Table 1). Overall, one can conclude that the share of the adult population active in platform work is still small. Most studies come up with estimates of around one per cent. Still, the empirical dimension of platform work can be regarded as significant. In fact, the absolute number of platform workers may reach up to one million in some countries (see Table 1).

The European Commission commissioned the largest cross-country study on platform work participation so far for a sample of 14 EU countries (Pesole et al., 2018). The study – not covered in Table 1 – concludes that platform work is likely to be “a more prevalent phenomenon in the EU than in the US”. On average about two per cent of the adult population derive their main income from platform work (PW). The highest prevalence has been observed in the UK, followed by the Netherlands, Germany and Spain (see Figure 1). The study underlines that estimates differ widely depending on the definition applied. While on average nearly 10 per cent have ever done platform work, ‘only’ about 6 per cent earn a significant amount of income (at least 25 per cent of the total) via this new kind of work (see Figure 1).

It should be stressed that the studies discussed are not fully comparable and most feature important limitations. They base on very different data sources (banking vs. tax vs. survey data). Some of them may significantly underestimate the size of the platform work economy, inter alia, because they focus only on platform work as main job (Katz and Krueger, 2016) or study only a limited number of platforms (Farrel and Greig, 2016b; Jackson et al., 2017). Other studies, on the contrary, may overestimate the scope of platform work: Survey respondents often misinterpret themselves as platform workers, e.g., because they regard the provision of goods and services via their own homepage as platform work (Bonin and Rinne, 2017). This aspect seems not to be controlled for by Pesole et al. (2018). Consequently, their results shown in Figure 1 may be too high. This assumption is further backed by the fact that most national surveys (see Table 1) report a lower scope of platform work for the countries assessed.

³ The scope of crowdwork is defined differently in the literature. Some include only work provided online under this label, see: Berg (2016); De Stefano (2016); Flecker et al. (2017); Leimeister et al. (2016), while others cover both online and local/physical work, see: e.g. Huws et al. (2016); Schmidt (2016); Drahokoupil and Fabo (2016); Codagnone et al. (2016). We follow the latter definition.
Table 1. Selected empirical estimates of platform work

<table>
<thead>
<tr>
<th>Study</th>
<th>Country Observed</th>
<th>Percent of adults currently active in platform work</th>
<th>... active at least once in last year</th>
<th>Equivalent number of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Katz and Krueger (2016)</td>
<td>US</td>
<td>0.5 *</td>
<td>-</td>
<td>600,000</td>
</tr>
<tr>
<td>Farrel and Greig (2016b)</td>
<td>US</td>
<td>0.5</td>
<td>-</td>
<td>1,200,000</td>
</tr>
<tr>
<td>Jackson et al. (2017)</td>
<td>US</td>
<td>0.7 *</td>
<td>-</td>
<td>n/a</td>
</tr>
<tr>
<td>BLS (2018b)</td>
<td>US</td>
<td>1.0 *</td>
<td>-</td>
<td>1,600,000</td>
</tr>
<tr>
<td>Bonin and Rinne (2017)</td>
<td>Germany</td>
<td>0.9</td>
<td>-</td>
<td>620,000</td>
</tr>
<tr>
<td>Serfling (2017)</td>
<td>Germany</td>
<td>4.8</td>
<td>-</td>
<td>3,300,000</td>
</tr>
<tr>
<td>Huws et al. (2017) **</td>
<td>Germany</td>
<td>1.9</td>
<td>-</td>
<td>1,070,000</td>
</tr>
<tr>
<td>Huws et al. (2017) **</td>
<td>Austria</td>
<td>1.9</td>
<td>-</td>
<td>110,000</td>
</tr>
<tr>
<td>Huws et al. (2017) **</td>
<td>Switzerland</td>
<td>1.8</td>
<td>-</td>
<td>110,000</td>
</tr>
<tr>
<td>Huws et al. (2017) **</td>
<td>Italy</td>
<td>3.3</td>
<td>-</td>
<td>1,420,000</td>
</tr>
<tr>
<td>Huws et al. (2017) **</td>
<td>Netherlands</td>
<td>1.2</td>
<td>-</td>
<td>140,000</td>
</tr>
<tr>
<td>Huws et al. (2017) **</td>
<td>Sweden</td>
<td>1.3</td>
<td>-</td>
<td>80,000</td>
</tr>
<tr>
<td>Huws et al. (2017) **</td>
<td>UK</td>
<td>1.5</td>
<td>-</td>
<td>720,000</td>
</tr>
<tr>
<td>CIPD (2017) ***</td>
<td>UK</td>
<td>-</td>
<td>4.0</td>
<td>1,300,000</td>
</tr>
<tr>
<td>Ilsøe and Madsen (2017) ***</td>
<td>Denmark</td>
<td>-</td>
<td>1.0</td>
<td>42,000</td>
</tr>
</tbody>
</table>

Note: The overview disregards the often quoted study of Harris and Krueger (2015) who base on a very simplified estimation and the figures of McKinsey (2016) who do not provide details on their calculation approach. For a further overview of studies measuring the scope of platform work, see Eurofound (2018, 10ff)

Source: Own illustration.* Proportion of overall Workers. ** Those with main income from crowd work who are active at least weekly using an app. *** Proportion of people at working age
To get a further understanding of the scope of platform work it is valuable to look at number of registered workers of larger platforms (see Table 2). Interestingly, the largest platforms are not Uber or Amazon Mechanical Turk as one may think based on the wide coverage in the media and academia, but rather freelancer platforms providing IT and business services such as Upwork, Freelancer or Witmart with more than 10 million registered workers each. Apparent is also that most of the ‘big players’ come from the US and China. Up to 80 million platform workers may be registered in the larger platforms presented in Table 2. This estimation disregards the option that workers register in multiple platforms. Still one should not conclude that all registered workers are active in platform work. According to Kuek et al. (2015) only about 10 per cent of registered workers are working on platforms in a given period. As a result, one may assume that about 8.8 million people are active in the large platform illustrated in Table 2. The overall number of platform workers is most likely higher as Table 2 covers mainly (outdated) information of 2016 and only selected larger platforms. Interestingly, platform work has not yet led to a substantial rise in the official numbers of self-employed.

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4 Similar estimates are provided by De Groen and Maselli (2016) with 5 per cent and by Georghe (2015) with 15 per cent.

5 Alone in China official estimates state that 60 million service providers have been active in 2016 in the sharing economy, see China State Council (2017). Based on more recent data De Groen et al. (2017) estimate that alone across Europe 12.8 million platform workers are active– more than half working in online freelancer markets.

6 According to Eurostat, the self-employment rate – self-employed relative to total employment – decreased slightly across the EU 28 from 2007 (15.1 per cent) to 2017 (14.6 per cent). The proportion of self-employed with a side job also remained fairly stable at 1.5 per cent. For the US data is mixed: The number of self-employed decreased slightly according to the Bureau of Labor Statistics (BLS, 2018a), while Census Data (CB, 2018a) reports an increase from 21 mln. 2008 to 25 mln. 2016. Census data bases on tax information and may be more
Is platform work universal or mainly concentrated across certain ISSA countries? Studies answer this question mainly for the group of online platform workers. According to recent data of the Online Labour Market Index the majority of workers come from low- and middle income countries in Asia with a particular concentration in India, Bangladesh, Pakistan and the Philippines (see Table 3). Users of online platform work are, on the contrary, mainly concentrated in developed countries (see Table 3). It should be noted that Table 3 covers data derived from four larger English speaking platforms only. Thus, it provides only a rough picture of international patterns of platform work. In case of local platform work (e.g. ride sharing) – where users and workers are located in the same country – activities can be observed across very different regions of the world. Cross-country data on the relative scope of locally operating platforms is, however, still lacking.

Table 2. Number of registered workers of larger platforms

<table>
<thead>
<tr>
<th>Platform</th>
<th>Field</th>
<th>Registered Workers</th>
<th>Origin / Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freelancer</td>
<td>Macro Tasking, IT &amp; Business</td>
<td>26,600,000</td>
<td>Australia / International</td>
</tr>
<tr>
<td>Zhubajie / Witmart</td>
<td>IT, Business, Design</td>
<td>15,000,000</td>
<td>China / International</td>
</tr>
<tr>
<td>Upwork</td>
<td>Macro Tasking, IT &amp; Business</td>
<td>10,000,000</td>
<td>US / International</td>
</tr>
<tr>
<td>Crowdsource</td>
<td>Micro-Tasking</td>
<td>8,000,000</td>
<td>US / International</td>
</tr>
<tr>
<td>Care.com</td>
<td>Care/Home Services</td>
<td>6,600,000</td>
<td>US / International</td>
</tr>
<tr>
<td>Epweike</td>
<td>IT, Design</td>
<td>6,000,000</td>
<td>China / China</td>
</tr>
<tr>
<td>Crowdflower</td>
<td>Micro-Tasking</td>
<td>5,000,000</td>
<td>US / International</td>
</tr>
<tr>
<td>Taskcn</td>
<td>IT, Design</td>
<td>3,000,000</td>
<td>China / China</td>
</tr>
<tr>
<td>680</td>
<td>IT, Design</td>
<td>3,000,000</td>
<td>China / China</td>
</tr>
<tr>
<td>Fieldagent</td>
<td>Market Research</td>
<td>800,000</td>
<td>US / International</td>
</tr>
<tr>
<td>Microworkers</td>
<td>Micro-Tasking</td>
<td>760,000</td>
<td>US / International</td>
</tr>
<tr>
<td>Clickworker</td>
<td>Micro-Tasking</td>
<td>700,000</td>
<td>Germany / International</td>
</tr>
<tr>
<td>Amazon Mechanical Turk</td>
<td>Micro-Tasking</td>
<td>500,000</td>
<td>US / International</td>
</tr>
<tr>
<td>Uber</td>
<td>Ride Services</td>
<td>400,000</td>
<td>US / International</td>
</tr>
<tr>
<td>99designs</td>
<td>Design</td>
<td>365,000</td>
<td>US / International</td>
</tr>
<tr>
<td>Peopleperhour</td>
<td>IT, Business</td>
<td>250,000</td>
<td>GB / International</td>
</tr>
<tr>
<td>Twago</td>
<td>Micro-Tasking</td>
<td>225,000</td>
<td>Spain / Latin America</td>
</tr>
<tr>
<td>Others recorded by Codagnone et al. (2016)</td>
<td>-</td>
<td>1,005,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Number of registered Workers</strong></td>
<td><strong>88,205,000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approximation of total active Workers</strong> (assuming activity rate of 10 %)</td>
<td><strong>8,820,500</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Own illustration/research based on Codagnone et al. (2016), To and Lai (2015), Li et al. (2017) and annual company reports.

reliable. BLS uses surveys in which individuals tend not to mention side jobs, e.g. platform jobs, see Donovan et al. (2016).

7 An indicator developed by the Oxford Internet Institute to measure the supply and demand of online platform work across countries by tracking the number of projects and tasks across platforms in real time.

8 Similar estimates are provided by Agrawal et al. (2013) and Lehdonvirta et al. (2014).
Table 3. Top10 user + worker countries

<table>
<thead>
<tr>
<th>Top 10 Worker Countries</th>
<th>Proportion of Online Platform Workers*</th>
<th>Top 10 User Countries</th>
<th>Proportion of vacancies posted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. India</td>
<td>26%</td>
<td>1. US</td>
<td>49%</td>
</tr>
<tr>
<td>2. Bangladesh</td>
<td>21%</td>
<td>2. UK</td>
<td>7%</td>
</tr>
<tr>
<td>3. Pakistan</td>
<td>13%</td>
<td>3. Australia</td>
<td>6%</td>
</tr>
<tr>
<td>4. US</td>
<td>7%</td>
<td>4. Canada</td>
<td>6%</td>
</tr>
<tr>
<td>5. Philippines</td>
<td>5%</td>
<td>5. India</td>
<td>5%</td>
</tr>
<tr>
<td>6. UK</td>
<td>3%</td>
<td>6. Germany</td>
<td>2%</td>
</tr>
<tr>
<td>7. Ukraine</td>
<td>1%</td>
<td>7. Singapore</td>
<td>1%</td>
</tr>
<tr>
<td>8. Nigeria</td>
<td>1%</td>
<td>8. Israel</td>
<td>1%</td>
</tr>
<tr>
<td>9. Egypt</td>
<td>1%</td>
<td>9. France</td>
<td>1%</td>
</tr>
<tr>
<td>10. Romania</td>
<td>1%</td>
<td>10. United Arab Emirates</td>
<td>1%</td>
</tr>
</tbody>
</table>

*Note: A person is classified as worker if he or she are gainfully employed for at least one hour in the survey week.

Source: Own illustration based on Online Labour Index Database.

How has platform work grown in past years? Platform work is a young and rapidly growing phenomenon. Starting in 1999 with the launch of the first online work platform Elance (now part of Upwork), a significant growth has been observed not until about 10 years ago (Frei, 2009, 4). In particular after 2013 a rise in platform work has been recorded (Farrel and Greig, 2016b) for the US with growth rates of platform workers ranging around 200 per cent per year. Interestingly, the relative rise in work platform activities (such as Upwork) was more pronounced than in capital platforms (such as Ebay). More recently, there are indications that growth has peaked (Farrel and Greig, 2016b) and slowed down in recent years. In fact, the Online Labour Market Index – a differently defined indicator measuring the growth of jobs being matched in large online platforms – rose by “only” around 15 per cent per annum over the last two years (Mid-2016 to Mid-2018). To which extent high growth rates can be expected over the future shall be discussed in the following section.

4. Will platform work rise further? – Drivers and hurdles of future growth

A further rise of the gig economy could affect social insurance systems profoundly. To predict the future development of the platform economy is hardly possible as it follows non-linear trends. In this respect, it is very akin to the disruption economy. The latter describes newly arising markets, generally driven by new technological innovations, which eventually disrupt and replace existing markets. Typical for these disruptive markets is that, once they have reached a certain point of development, they tend to grow at a rapid pace substituting traditional markets within a short time frame (e.g. Wikipedia replacing traditional encyclopedias within years) (Assink, 2006). It is still questionable whether platform work has the potential to replace entire traditional markets. Yet there are indications that platform work may erupt further at high growth rates. The following section discusses selected drivers and hurdles for future growth (presented in Table 4).

For further details on the Online Labour Market Index see Kässi and Lehdonvirta (2018).
Table 4. Factors affecting future growth

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Hurdles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Widening access to mobile internet</td>
<td>Regulations</td>
</tr>
<tr>
<td>Blockchain technology</td>
<td>Jobs replaced by computers</td>
</tr>
<tr>
<td>Workers’ preference for flexible jobs</td>
<td>Workers’ preference for secure jobs</td>
</tr>
<tr>
<td>Households’ preferences to outsource unpaid work</td>
<td></td>
</tr>
<tr>
<td>Labour cost savings</td>
<td></td>
</tr>
<tr>
<td>Population density</td>
<td></td>
</tr>
</tbody>
</table>

Source: Own illustration.

New information technologies, such as the mobile internet, have largely fostered the growth of platforms in the past years. Analogously, further improvement of internet access may contribute to future platform work growth (EC, 2016, 11). Such potential for increased internet penetration is, in particular, seen in developing countries. But also other technological developments, such as the blockchain technologies, may affect future growth. Some even say that Blockchain is likely to have the “greatest impact in the next few decades” (Tapscott, 2016) as it has the potential to replace current platform types entirely by virtual peer to peer interactions (Tapscott, 2016; Sundararajan, 2016). Such development could further reduce transaction costs (avoiding platform charges) and may, therefore, lead to a gradual erosion of traditional long-term employer-employee relationships. Also the rise in artificial intelligence (AI) applications may foster platform work growth. In fact, a vast amount of human intelligence is (still) needed to train and review AI systems, a job very often done by platform workers (Forbes, 2018; Clickworker, 2018).

Labour costs are a further important determinant. Platform work is often performed by self-employed who are responsible for the payment of social insurance contributions themselves. Such outsourcing of social security payments and the limitation of further workers’ rights (e.g. holiday and sickness payment) can lead to comparably low labour costs in the platform economy (Forde et al., 2017, 40). As a consequence, services offered by platform workers may turn out cheaper than the same work provided by standard employees which eventually drives demand for platform work. Whether the comparative advantage in labour costs will prevail in the future is highly uncertain and depends mainly on upcoming regulatory interventions (discussed below).

For many people, in particular disabled and child caring women, platform work has formed ways to work relatively flexible in terms of time and location. Such preferences/needs for flexible work arrangements may drive future growth. The development of platform work depends also on job opportunities offered in the standard labour market which are determined

Internet penetration amounts, e.g., to 35 per cent of the population in Africa compared to 95 per cent in North America.

Blockchain technology links data records based on cryptography. Of particular importance is that a modification of the data is, generally, not possible. Thus, it allows a trustworthy documentation

In fact, for more than 50 per cent of companies lower costs are the main reason to use work platforms according to employer surveys. For a literature overview see Codagnone et al. (2016, 42).
by economic cycles. An example provides the Ukraine where platform work has grown rapidly in recent years of economic crises (Aleksynska et al., 2018).  

Already today local work platforms have increased households’ spending on services and this may continue in the future. Uber, for instance, did not only replace traditional taxi rides but also triggered individuals to use these ride services for trips on which they would once have driven themselves (McKinsey, 2016, p.77). Some platforms offer services which have not been available on the market on a larger scale before (e.g. grocery delivery services). The potential for further outsourcing of unpaid household work is still substantial (see OECD Time Use Survey, 2018).

There are also a number of societal drivers, such as population density and cohort effects, which may affect the future of platform work (European Commission (2016), p. 11f). Until 2030 the world’s population living in cities is expected to rise from currently 55 per cent to 60, with a particular increase in Asia and Africa. The higher population density raises the potential number of users and suppliers of local platform services (e.g. delivery services) and creates the fundament for accelerated platform growth. Additionally, platform work is more often demanded and performed by younger cohorts, better familiar with digital technologies. In the future these generations will grow older and new young digital native generations will emerge.

Besides these driving factors, there are various hurdles identified in the literature. Technological advancements in the area of artificial intelligence (AI), e.g., may negatively affect the future growth of platform work in the longer term, whenever this new technology has matured (in at least 10 years). Many platform jobs are simple and it is imaginable that in the future they will be partly replaced by computers just like in other sectors of the economy. Future growth lies also in the hand of politicians and lawyers. Changes to tax, labour and social security laws and regulations as well as court decisions may greatly affect the growth and nature of future platform work (see section 6).

Overall, most of the factors discussed as well as most factors and experts speak in favour of a further rise in platform work. The extent of future growth is, however, uncertain as it follows non-linear trends – similar to the disruption economy. Against this backdrop, it is highly recommended to monitor the development of platform work very closely in the years to come.

5. Is platform work providing the main income or only an extra income?

In many countries platform work income is not covered by social insurance if it represents an additional income (see section 7). Against this backdrop, it is important for policy makers to know whether platform work usually provides the main or only an extra income. According to the literature (see overview in Table 5) the relative scope of platform earnings varies between types of platforms. In high skilled freelancer platforms it is common that more than half of workers earn their main income from the platform, e.g. 63 per cent in Elance and oDesk (2014) – now Upwork – or 61 per cent in Nubello (2014) a Spanish freelancer platform. In crowdwork platforms, on the contrary, fewer workers earn their main income from platform activities. Overall, one can say that only around a quarter of platform workers receive their main income.

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13 Ukraine was ranking as the 4th most important country in terms of freelance earnings on the global platform Elance (now Upwork) during the crises year of 2014. See Elance (2014).

14 World Urbanization Prospects: The 2018 Revision.

15 For the age structure of platform workers see Box 2. Users are young, too, see Eurobarometer (2016).
from platform work. In other words, for a vast share of platform workers, at least in Western economies, these new forms of work only serve as a top-up of other income sources, particularly, if non-online income is fluctuating (Farrel and Greig, 2016a). This finding, however, may not hold for developing countries. A recent ILO survey of crowdworkers of such countries (Rani and Furrer, 2018) indicates that for 68 per cent platform work is the main and/or only job.

Many platform workers complement their income from their job as an employee outside of the platform economy. Interestingly, about half of those with another job perform crowdwork during the working hours of the other job (Berg, 2016; Berg et al., 2018). Estimates differ greatly by type of platform work and by the respective study (see Table 6). According to Rani and Furrer (2018) the coincidence of platform work and traditional employment is less common in developing economies.

Table 5. Share of platform workers with main income from platform work

<table>
<thead>
<tr>
<th>Study</th>
<th>Main platform worker (at least 50 % of total income)</th>
<th>Significant platform worker (at least 25 % of total income)</th>
<th>Platforms covered</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huws et al. (2017)</td>
<td>ca. 25%</td>
<td>ca. 40 %</td>
<td>Different</td>
<td>Europe</td>
</tr>
<tr>
<td>Pesole et al. (2018)</td>
<td>ca. 25%</td>
<td>ca. 60-75%</td>
<td>Different</td>
<td>Europe</td>
</tr>
<tr>
<td>Serfling (2018)</td>
<td>33%</td>
<td>-</td>
<td>Different</td>
<td>Germany</td>
</tr>
<tr>
<td>Forde et al. (2017)</td>
<td>25%</td>
<td>38%</td>
<td>Crowdwork</td>
<td>Europe</td>
</tr>
<tr>
<td>Berg (2016)</td>
<td>37%</td>
<td>-</td>
<td>Crowdwork</td>
<td>Global</td>
</tr>
<tr>
<td>Berg et al. (2018)</td>
<td>58%</td>
<td>-</td>
<td>Crowdwork</td>
<td>Global</td>
</tr>
<tr>
<td>Rani and Furrer (2018)</td>
<td>68%</td>
<td>-</td>
<td>Crowdwork</td>
<td>Developing Economies</td>
</tr>
<tr>
<td>Elance and oDesk (2014)</td>
<td>63%</td>
<td>-</td>
<td>High skilled freelancer</td>
<td>Global</td>
</tr>
<tr>
<td>Nubello (2014)</td>
<td>61%</td>
<td>-</td>
<td>High skilled freelancer</td>
<td>Global</td>
</tr>
</tbody>
</table>

Source: Own illustration.

Table 6. Share of platform workers declaring to be employed (outside of platform economy)

<table>
<thead>
<tr>
<th>Study</th>
<th>Share declaring to be employed</th>
<th>Platforms covered</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berg (2016)</td>
<td>ca. 50%</td>
<td>Crowdwork</td>
<td>Global</td>
</tr>
<tr>
<td>Forde et al. (2017)</td>
<td>41% *</td>
<td>Crowdwork</td>
<td>Europe</td>
</tr>
<tr>
<td>Rani and Furrer (2018)</td>
<td>24%</td>
<td>Crowdwork</td>
<td>Developing Economies</td>
</tr>
<tr>
<td>Berg et al. (2018)</td>
<td>34%</td>
<td>Crowdwork</td>
<td>Global</td>
</tr>
<tr>
<td>Serfling (2018)</td>
<td>31%</td>
<td>Different</td>
<td>Germany</td>
</tr>
<tr>
<td>Huws et al. (2017)</td>
<td>66%</td>
<td>Different</td>
<td>Europe</td>
</tr>
<tr>
<td>Pesole et al. (2018)</td>
<td>68%</td>
<td>Different</td>
<td>Europe</td>
</tr>
</tbody>
</table>

Note: *Only full-time employed. The share of overall employed is most likely higher as part-time employed are not included.

Source: own illustration.

16 See Huws et al. (2017); Pesole et al. (2017) estimate that roughly two thirds of platform workers regard themselves as employees. Unclear is, however, whether they are standard, non-platform employees or whether they see themselves as employees of a platform. Thus, the latter two estimates should be taken with caution and seen as the maximum possible share having an employee job outside the platform economy.
Hourly platform earnings are often below the level of equivalent work in traditional employment, and to some extent below the hourly minimum wage recorded in developed countries. However, a wide variation is observed between platform types: Crowdwork, generally, results in very low earnings, below western minimum wages and between one and six USD (Berg, 2016; Forde et al., 2017; Rani and Furrer, 2018). Kuek et al., 2015; Agrawal et al., 2013 show that these low remunerations may still be above remunerations of traditional jobs in developing countries. Local platforms offer higher earnings, usually, above the national minimum wage (De Groen and Maselli, 2016; Hall and Krueger 2015). In freelancer platforms hourly earnings vary widely, generally, between five and 20 USD per hour (see Figure 2).\textsuperscript{17} For selected experts higher remunerations above 100 USD per hour are reported (Money, 2018).

For many platform workers effective earnings may, however, be lower than reported. Most studies base on average earnings which are biased by outperformers with very high earnings. Median earnings – indicating that half of workers earning either below or above it – may be a better indicator. They tend to be often significantly lower.\textsuperscript{18} Additionally, reported earnings do not cover unpaid working time. It is common that platform workers, in particular in online and contest-based platforms, spend long periods searching for work.\textsuperscript{19} De Groen and Maselli (2016, 7) show that effective hourly earnings may be reduced in the case of contest-based platforms by up to 60 per cent if unpaid working time is included. Whether such low remunerations translate into overall lower (household) income levels of platform workers has not been clearly proven by the literature.\textsuperscript{20} The crucial question is whether platform work income complements or substitutes traditional earnings. Depending on the answer – and the effective coverage of platform income (see section 7) – social insurance contributions and resulting entitlements may raise or fall with the emergence of the gig economy.

Box 2 provides further information on the socio-economic background of platform workers. Thereby, for instance, the myth that platform workers are mostly students is debunked.

\textsuperscript{17}See Codagnone et al. (2016, 36). Higher wages between 10 and 28 USD are reported by Staff.com, 2013. They refer, however, to slightly different tasks and report only asking and not final salaries. Interestingly, pay differs widely by worker’s country of origin.

\textsuperscript{18}See Berg (2016). For instance, reports differences between 16 per cent and 48 per cent than comparing median and average hourly earnings, (Berg, 2016, Table 2).

\textsuperscript{19}According to Berg, 2016 roughly 60 per cent of crowdworkers state that they cannot find sufficient crowdwork which indicates that searching costs may be high.

\textsuperscript{20}See Jackson et al. (2017); Forde et al. (2017) state that gig workers have lower overall income levels. Huws et al. (2016); Bonin and Rinne (2017); Kuek et al. (2015, 41) a developing country study, reject this.
Figure 2. Hourly remunerations by platform types, in dollar


Box 2. What is the socio-economic background of platform workers?

There is general consensus in the literature that platform workers are younger than the general adult population. From a social policy perspective, this implies that these new work forms will affect the benefit and expenditure side of pension systems mainly in the longer term whenever the relatively young platform workers reach retirement. On the revenue side of pension and other social insurance schemes, however, the observed young platform worker population may have an impact already today if such platform activities are not covered by social security (discussed in section 7).

Platform workers are more educated than the general adult population (Berg, 2016; Brabham, 2012; Bertschek et al., 2016; Elance/oDesk, 2014; Bonin and Rinne, 2017). Of course, the higher education level is partly explained by the young age pattern of platform workers (see above). In terms of the gender distribution, the empirical evidence is mixed. Some studies report relatively balanced gender participation rates in platform work (Huws et al. (2017) or Mturk-Tracker (2018). Other studies show higher male participation rates, in particular for platform workers from developing countries (Berg, 2016).

It is said that platform workers are mainly students who are active in these new work forms for a short period of their adult life. If this hypothesis holds true platform work would be of less relevance for social policy makers. The data contradicts the myth of student platform workers. According to Huws et al. (2017) only around 10 per cent of respondents are studying – a proportion not very different from the share of students in the overall adult population. Also Berg (2016) and Serfling (2018) reports a student participation rate of only 14 per cent and 9 per cent respectively.

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21 This observation has been made both in in online platforms (Berg, 2016; Elance and oDesk, 2014; Nubelo, 2014) as well as in local platforms (Hall and Krueger, 2015; Cullen and Farronato, 2015).
6. How are (and should) platform workers (be) classified?

How to classify platform workers – whether as self-employed, employed or as a some further third category – is a crucial question both from a social policy and the individual viewpoint. Not only does it determine the legal access to social insurance (see section 7), but it is often also a “short cut to unlock many decent work standards” (Heeks, 2017, 24), including the payment of minimum wages, anti-discrimination regulation, paid holidays and sick pay. Against this backdrop, the following passages outline how platform workers are, generally, classified across ISSA countries and which new regulations are currently discussed in this context.

National regulations, usually, do not define that platform workers belong to only one of the standard work categories (Berg, 2016, 18). This is not surprising given the substantial heterogeneity of platform work activities (see Section 2) and the observed diversity in relationships between workers and platforms (Lenaerts et al., 2017) which make a common classification challenging. In practice, often the platform decides on the work nature and defines the work classification in its terms of condition (De Stefano, 2016, 12ff). As a result, platform workers are in most cases classified as independent contractors (Risak and Warter, 2015, Smith and Leberstein, 2015). The case that platform workers are employees, e.g. (some) Deliveroo and Instacart workers, is rather the exception than the norm. Usually, already existent regulations are applied to classify gig workers which turn out to be very different across countries. Some states regard platform workers by default as self-employed (e.g. Slovakia or Denmark). Others consider a default classification for selected types of platform work. In France and Switzerland, for instance, Uber drivers are regarded as employees in accordance with social insurance law, while in Hungary they need to register as self-employed. Most countries, however, apply a variable approach, in the sense that classification is decided on a case-by-case basis using classification test. The challenge is to apply and adapt these traditional classification tests to the new work nature of the gig economy.

Given the novel characteristics of platform work and the lack of regulation numerous litigation cases on workers’ classification have occurred in recent years. Apparent is that most of these cases concern local platforms, such as delivery, car riding and home service platforms (De Stefano, 2016). An important milestone for the classification of gig workers, at least across Europe, represents the recent verdict of the European Court of Justice (ECJ) passed in December 2017. It states that Uber should be seen as a transportation company rather than a business providing “information society services”. While the ECJ (2017) ruling did not deal directly with the issue of workers’ classification, it has a decisive impact on this discussion. In fact, the ECJ underlined in its verdict that Uber exercises significant influence and control over the conditions under which Uber drivers provide their service based on new technologies (e.g. performance ratings). To acknowledge these new technical possibilities of control and their impact on work relationships is an important aspect of the ECJ verdict which most likely will have an impact on national classification tests and practices also beyond the Uber case.

6.1. Introducing a third worker’s category: A challenging task

Given the challenge to classify platform workers based on the traditional binary categorization (employed vs. self-employed), it is discussed in some countries to introduce a new, third work type category – lying in between the status of being employed and self-employed. Thereby it is

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22 Also in various countries such as the United Kingdom (U.K.) it is discussed – see e.g. Taylor Review (2017) – to focus more on the degree of control exercised by the platforms when classifying work relationships.
proposed to grant these workers’ category with wider access to social insurance compared to self-employed. In the US, for instance, it is debated to implement the status of an ‘independent worker’ (Harris and Krueger, 2015; Hagiu, 2015). These workers shall be able to choose their own time, place and content of work (similar to independent contractors) but may be exposed to a higher level of control (like traditional employees). Similar discussions are underway in Saudi Arabia and the Philippines. It is important to note that already today intermediate worker’s categories are applied in various ISSA countries. The following closer look reveals that the definition of these categories differs widely and that the application can be challenging in practice.

In some states (e.g. Germany, Spain, Portugal or Canada) a certain percentage of the contractor’s business income (usually 50-80 per cent) needs to come from the same client to be deemed as dependent contractor (De Stefano, 2016). To evaluate whether the income condition holds in the gig-economy may, however, be challenging and costly for administration and/or individuals because gig workers, usually, carry out multiple jobs and tasks for different platforms and clients.\(^{23}\) Important is also to note that clients have little control whether workers receive a major share of their income from them. As a result, a third workers’ category linked to relative income may increase the uncertainty about costs and liabilities of the clients (De Stefano, 2016), which may hamper growth of the digital economy.

Other countries (e.g. UK, Italy and Austria) apply an intermediate category based on qualitative criteria. In the UK, for example, a ‘worker’ has limited freedom to choose the working time and place (like ordinary employees), but has the choice to accept or reject any work offer provided (like self-employed). ‘Workers’ may profit from various employment protection, such as minimum wages or annual holidays, but are left out in other fields, such as redundancy pay (De Stefano, 2016). In practice, the ‘worker’ category sets very high hurdles for persons with discontinuous work patterns to claim employment status in the UK (Adams et al., 2015, De Stefano, 2016). Consequently, this intermediate status may drive out well-protected standard employment forms. Similar experiences have been made in Italy with the interim category of ‘para-subordinate’ work relationships (OECD, 2018a). Initially, businesses using these work contracts did not have to pay any social contributions. This led to a substantial rise of this work type and according to experts most of the new para-subordinate workers had previously been classified as employees (De Stefano and Aloisi, 2018). Adding new work categories diminishes transparency of regulations for all stakeholders involved and therewith increases the potential for uncertainty and misclassification. This is one of the lessons with the introduction of an intermediate work category of independent contractors ("Freie Dienstnehmer") in Austria according to (Pingerra, 2018). Additionally, further work categories may increase litigation cases regarding the correct classification of workers. Overall, these experiences indicate that introducing a third workers’ category is in practice challenging and should be evaluated thoroughly in advance.

Various countries consider to implement a new workers’ status only for the group of platform workers. Belgium is one of the few states which already adopted such a special regime (see section 8). The motivation behind is to stimulate this new digital sector of the economy and to ensure decent working standards (De Croo, 2016). While these are valid points, the question is why such a special treatment is needed merely for gig workers and not also for other non-standard forms of work, such as temporary agency or on-call work – which often share similar features of precarious working conditions. Additionally, it should be considered that the

\(^{23}\) See, for instance, Serfling (2018) who shows that it is not uncommon to work for more than four platforms (29 per cent of respondents) and to carry out more than 30 tasks per week (28 per cent).
landscape of platform work may continue to develop rapidly in terms of technological advancements and services provided. Thus, any definition of the category ‘platform work’ may quickly be outdated. Against this backdrop, other countries so far opted against the introduction of a special statute for platform workers (EU-OSAH, 2017, 63).

Additionally, it is discussed to adopt harmonized classification practices on an international level. Schuster (2018), e.g., proposes to presume that platform workers are traditional employees, unless the platform proves the opposite based on newly developed classification tests. It is currently debated whether this rule could be incorporated in the upcoming EU directive on platform work and, thus, be applied to all EU Member states. It seems, however, unlikely that such a harmonized international classification of platform workers will be introduced in the close future. Too different are (still) the national labour and social laws in cross-country comparison (see e.g. third categories above).

In conclusion, traditional regulations and definitions will need to be adapted to the new formats of digital work (Huws et al., 2017). Whether entirely new (intermediate) work categories are necessary is, however, questionable. In the end, classification is less of an issue if policy makers decide to cover employees and self-employed at similar levels in social insurance. This would ensure that, irrespective of the employment type chosen, insurance standards are met by all workers.24

7. To which extent are platform workers covered by social insurance?

Despite the still small scope of platform work, it is important for policy makers to prepare early in advance for a possible, unpredictable rise of this new work form. A main concern raised in this context is the lack of social insurance coverage of platform workers. The aim of the following section is, therefore, to assess this coverage from two perspectives: From a legal viewpoint, evaluating whether individuals have access (on a mandatory or voluntary basis) to social protection defined by current laws and/or regulations and from an empirical perspective, assessing whether individuals are effectively insured by social insurance. Legal insurance coverage provides platform workers with the opportunity to insure the big life-cycle risks (e.g. old age, death, disability). It is an important prerequisite but no guarantee for effective insurance coverage. In fact, people often lack knowledge, resources and/or willingness to participate in a social insurance scheme, even if they are mandated to do so by law. Thus, it is crucial to look at coverage from both, a legal and an empirical perspective.

7.1. Legal insurance coverage

A comprehensive study on legal coverage has been provided by (Spasova et al., 2017) for the EU28 and 7 further European countries. The authors ask to which extent self-employed in general have access to social protection schemes. As most platform workers are treated as self-employed (see section 6) the analysis may provide valuable information for the study at hand. Overall, the study of (Spasova et al., 2017) indicates that access to statutory health care is available for self-employed platform workers in nearly all EU 28 countries. Also legal access to statutory pension schemes is available in most countries, while access to sickness and occupational injury benefits is generally very restricted in European countries. These results,

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24 But even then various questions remain which will keep the classification debate alive, e.g., whether minimum wages or employer contributions have to be applied.
however, only hold for individuals whose main activity is self-employment.\textsuperscript{25} Hence, these findings are not necessarily applicable to gig workers, since most of them carry out platform work as a side job in addition to a main job as an employee (see section 5). For platform workers legal coverage may be more restricted as shown in the following own analysis.

Our own analysis is based on a survey of 30 ISSA member institutions worldwide (described in Box 3). This global survey indicates that legal coverage in statutory pension schemes of self-employed platform workers is lower than reported by (Spasova et al., 2017) for Europe. Only in about half (48 per cent) of countries surveyed self-employed platform workers are reported to be fully legally covered in statutory pension schemes. In 17 per cent of countries just a share of self-employed platform workers is legally covered by statutory pension insurance. 13 per cent of countries provided no answer. The remaining 21 per cent of countries do not cover self-employed platform work income at all (see Figure 3). Thereby, coverage seems to be in particular missing in low and middle income countries – where social insurance systems are probably not as matured. Interestingly, for these countries a significant potential in future platform growth is foreseen (Kuek et al., 2015) and already today most online platform workers come from low and middle income countries (see Table 3). Against this backdrop, the relatively high reported coverage gap in these countries should be of special concern.

\textbf{Box 3 Cross-country ISSA survey on platform work}

For the study at hand a cross-country questionnaire was disseminated to public pension institutions worldwide – to our knowledge the largest survey on the social insurance coverage of platform workers so far. The questionnaire was sent to 87 selected member institutions of the ISSA network. Overall, we received responses from 30 countries spread over all continents and from countries of different income levels. Thereby, survey responses from European countries as well as from middle and high income countries are relatively overrepresented (listed in following footnote).\textsuperscript{26} The questionnaire covers 20 mainly multiple choice questions on the topic of platform work (PW) to be answered from the perspective of the respective country. Thereby, the following sub-topics have been addressed: 1) Relevance of PW, 2) Legal and effective Social Insurance Coverage of PW, 3) Statistical Information on PW, 4) Policy Responses.

\textsuperscript{25} Spasova et al. (2017), focus on self-employment as a main activity only.

\textsuperscript{26} These countries participated in the survey: Austria, Azerbaijan, Belgium, Bulgaria, Canada, Cote d’Ivoire (LI), Estonia, Finland, France, Germany, Guatemala (LI), Hungary, Iran, Jamaica, Kazakhstan, Kosovo, Madagascar (LI), Marroco (LI), Moldova, Netherlands, Oman, Philippines (LI), Portugal, Russia, Saudi Arabia, Singapore, Slovakia, Sweden, Switzerland, Japan. (LI) = Low and Lower Middle Income Countries according to World Bank classification.
Insurance coverage differs significantly if platform work is a side job. As shown in section 5, most platform workers earn only an extra income in the gig economy, while being an employee in the main job. Such additional platform income is in two-thirds of the countries surveyed not legally insured (see Figure 6). Three main reasons for this non-coverage can be identified. First, one third of countries does not cover self-employed extra income at all (or only on a voluntary basis, e.g. in Saudi Arabia). Second, roughly another third does cover such side-income only if a certain income limit is reached. On average, the threshold is 26 per cent of the national average earnings. It differs considerably across countries. While in Switzerland the threshold is 4 per cent, it is 133 per cent in Portugal. Third, some countries cover additional income only if it represents a regular earning (e.g. in Estonia, Portugal and Finland). As a result, an important conclusion of this study is that income of most side-jobbers – who generally represent the majority of platform workers – is not insured by statutory pension schemes with resulting negative consequences for pension finances and adequacy.

27 The median threshold is 13 percent of national average earnings.
Figure 4. Legal statutory pension coverage of self-employed platform workers who earn only an extra income besides job as an employee

Source: own analysis based on survey among 30 ISSA members.
7.2. Effective insurance coverage

The literature on effective social insurance coverage of platform workers is, unfortunately, still very limited. All of the available studies find significant gaps in empirical insurance coverage – which should be a major political concern, in particular if platform work continues to grow in the years to come. While platform workers often report access to health care insurance, coverage in other branches of social insurance is generally very restricted (Jackson et al., 2017; Forde et al., 2017, Berg et al., 2018). In this sense empirical studies resemble the legal rules (described before). Mixed results are provided on the effective coverage of platform workers with another job outside the platform economy. One could assume that side jobbers are sufficiently insured via their non-platform job. (Forde et al., 2017), however, do not report much higher coverage for this group, while (Berg et al., 2018 and Jackson et al., 2017) find lower but still significant coverage gaps. Overall, insurance gaps are far wider than studies on statutory access to social protection would suggest. The European study of (Forde et al., 2017, 57), for instance, reports that only about a third (35.5 per cent) of the surveyed crowdworkers were currently paying into a pension scheme. A majority states not to have access to old age insurance (56 per cent) – whether public or private – and disability insurance (61 per cent). This stands in clear contrast to the study of (Spasova et al., 2017) who report full access to statutory old age and disability pension schemes in nearly all EU countries for self-employed individuals. This discrepancy between legal and effective coverage may indicate that a sizeable share of platform workers is not aware of their social rights and duties in terms of social protection.

Even when being sufficiently informed, a sizeable share of platform workers does not declare their earnings to public institutions. A recent French survey, for instance, shows that only 15 per cent of respondents would certainly declare their income from platform work to public authorities. Most answered that they would not report income (59 per cent) or that they did not know (25 per cent) (Lhernould, 2018). This example indicates that social and tax fraud can be substantial among platform workers. The anonymity of these new work forms may play a key role for the high fraud potential. Many platform workers have no direct contact with their clients. Often an email address, alias name or facebook profile is sufficient to register and work on the platform (Lhernould, 2018). Fraud may also be substantial if platforms are located abroad because platform workers may judge it as unlikely that foreign platforms report their activities to the authorities of their residence country. High administrative costs to declare platform income can be a further reason for fraud in the gig economy. These administrative costs can be disproportionate to the low incomes often earned in platform work (see section 5) and may therefore discourage income declaration. Against this backdrop, various initiatives to raise effective coverage are discussed in the following chapter.

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28 The reviewed studies focus often only on selected platform workers (e.g. crowdworkers) or selected countries.
29 It is crucial to interpret the results of Forde et al. (2017) as individually reported access to social protection. It may well be that potential, legal access to social protection is significantly higher than reported.
30 Limited financial resources may additionally reduce effective social insurance coverage. However, this should be the case only for some groups of platform workers given the high polarization of incomes in the gig economy (see section 5). Financial gaps may also be of lower relevance for platform workers from low and middle-income countries as they often earn more than the average worker of their country of residence, see Kuek et al. (2015).
8. Which good practices exist to raise effective insurance coverage?

Legal insurance coverage of platform work is the first step to ensure that these new work forms are adequately insured against the major individual life-cycle risks (illness, disability, old age, etc.). As discussed, this is, however, no guarantee that individuals are effectively insured (see Section 7). Thus, raising effective coverage is a vital second step to safeguard adequate social insurance of platform workers. For this purpose, the following section examines and presents various good practices among ISSA countries. We start with initiatives to obtain information on platform activities, followed by models to involve platforms in the contribution collection, digital information campaigns and private initiatives. Finally, measures to close the coverage gap of global online platform workers are discussed.

8.1. Good practices: Getting information on platform activities

Usually, only individual platform workers are responsible for the declaration of incomes and the resulting payment of social contributions. This is the case in nearly all countries assessed in our ISSA survey. In other words, it depends on the platform worker whether public institutions are informed about the platform activities. But, as discussed in Section 7, many gig workers may have limited interest or knowledge to declare their platform activities properly. Thus, it can be advisable to obtain information on platform activities from other sources. For this purpose, already various models exist across ISSA countries which are presented in the following passages.

In Belgium, since 2017, platforms may voluntarily take part in a new tax favourable regime. Participating platforms have to inform tax authorities directly about the incomes earned by the workers of their platform. The information received by tax offices is forwarded to social insurance agencies. Platforms must be licensed or organized by public authorities and provide peer-to-peer services between two equivalent individual partners. Moreover, they have to ban any cash payments and payments have to be made by the platform (not the users) so that monetary transfers can be traced better by authorities (EU-OSAH, 2017, 62). In return for the higher administrative duties workers of licensed platforms benefit from favourable treatment: Up to the amount of 6,130 euro per year (in 2018) – corresponding to 14 per cent of national average full time earnings – platform income is not considered as a professional income and is exempted from tax and social contributions. Moreover, for those who earn an extra income in the platform economy administrative burdens are reduced. The main goal of this preferential treatment is to stimulate the platform economy in Belgium. So far, only selected work platforms (e.g. ListMinut) are participating under this new regime.

There are indications that the new rules have triggered growth of the gig economy in Belgium, raising flexible income opportunities for many people. The Belgian case, however, also features critical aspects. The exemption of platform income from social contributions reduces the financing base of social security schemes in Belgium – already challenged by demographic ageing – and ultimately may lead to inadequate benefits. Moreover, it may trigger a partial

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31 As a result, services provided to firms and platforms selling goods (e.g. Airbnb) are excluded. See ListMinut (2018).
32 Interview with Belgium platform providers.
33 They are exempted from registration in the Belgian Enterprises Register and from applying for a VAT number. See De Croo (2016). Before the law platform workers had been confronted with extensive obligations as the status of ‘mini-entrepreneurs’, who enjoy limited tax and social insurance duties, did not exist in Belgium.
substitution of standard employee jobs with less protected self-employed work forms and cause a distortion of competition with non-platform workers. The Belgian example, therefore, underlines that stimulations of the platform economy can entail difficult tradeoffs. Additionally, the Belgian case shows that income reporting is often only applied by national platforms. To our knowledge, platforms based abroad have so far been reluctant to be licensed under the new rules (French Senat, 2017). A concern further discussed below.

**France** chose a different approach to obtain information on workers’ incomes: The contribution collection agency (ACCOS) and tax authorities are allowed to request from platform providers the names of workers who earned incomes above certain thresholds in a given timeframe. This law has been introduced already in 2014 and has been applied to different platforms residing in France. However, similar to the Belgian case, most foreign platforms have so far refused to respond to information requests as they do not see themselves bound by this French regulation. In October 2018, France adopted a new law according to which platforms have to provide tax administration once a year with detailed information on the platform incomes of all their users (with incomes above a certain threshold) from 2019 onwards. This information is forwarded to ACCOS. Non-communication of platforms results in a fine of five per cent of undeclared incomes (EY, 2018).

In the United States – similar to France – platforms have to send information about income earned to tax authorities and -payers. More precisely, platforms who act as a trusted party in a transaction have to complete the tax form (1099-K) of their workers’ with the gross income received from their platform. However, this obligation only applies if recorded transactions of a platform worker exceed 20,000 USD per year and if more than 200 transactions have been recorded on the platform. Due to these overly-high thresholds, in practice most platform activities are not reported to public agencies in the US. Moreover, it is said that smaller platforms do not participate in the data transmission.

Interesting is to look at a good practice in Uruguay which was honored with the ISSA regional social security award in 2017 (ISSA, 2017). Uruguay – like many neighboring states in Latin America – has traditionally been confronted with a large informal labour market. Many were afraid that the upsurge of the platform economy would further widen this grey economy, with negative consequences for social protection coverage (Adecco, 2018). The example of Uruguay demonstrates, however, that this is no destiny: Since 2017 drivers of transport platforms (e.g. Uber or Cabify) in Uruguay are mandated to register on a public mobile phone application as a small business with both the social insurance agency (BPS) and tax authorities. Only with this registration drivers are allowed to be active on a transport platform.

The Uruguayan model is a success story because all involved stakeholders have an incentive to participate in the system. Drivers receive an easy access to a large pool of potential clients via the digital platform. The benefits of this access seem to outweigh the resulting social insurance and tax costs for many of them. In fact, in the first year 3,600 drivers, who previously have been working informally, registered on the public application (Adecco, 2018). Platforms carefully check the drivers’ registration as they otherwise risk to lose their license to operate on the Uruguayan market. Additionally, the government assured transport platforms that their drivers are acknowledged as self-employed. Whether the latter guarantee is a necessary condition for the success of the Uruguayan model is, however, debatable. In the end, the model is also advantageous for the government. Public institutions obtain information on platform

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35 This is also often the case if platforms have permanent establishments in France because work contracts are still concluded with companies outside of France. See French Senate (2017, 48f).
activities at relatively low costs and receive higher social contribution and tax payments due to the increased labour formalization. Overall, the Uruguayan example demonstrates that the digital economy provides social insurance agencies with new opportunities to raise effective insurance coverage by using modern technologies and smart incentives for all stakeholders involved. The application of this model is, however, also restricted to local physical platform work. Globally operating online platforms have little incentive to comply with such a regulation. A refusal of access to the national market is no severe threat to them as they may easily recruit their workers from other less regulated countries.36

A more gradual approach has been chosen by the government of Estonia. In 2016 it started a cooperation with the platform Uber (and later with Taxify) on the automatic reporting of drivers’ income. To enable this data exchange the Estonian Tax and Customs Board (ETCB) set up and provided Uber with an electronic budget module. On this basis Uber drivers may voluntarily authorize Uber to send their income data to the ETCB – in a very similar way to standardized income information provided by employers/banks to tax authorities. The worker’s data is automatically entered into his/her prefilled tax return. The taxpayer may then add any costs of their platform activity to the tax return statement in order to estimate the taxable profit. This new income reporting tool is presented to workers as an additional service provision. But, of course, from the government perspective the main aim of this tool is to raise tax compliance and to obtain information on platform workers’ incomes and activities (French Senate, 2017, 116ff). According to official data, the project has raised drivers’ income tax returns from 69 to 319 after the first year of introduction. While these are small numbers, it is yet a sizeable increase for a small country like Estonia (ETCB, 2017). Still the success of the project is limited due to the voluntary participation of drivers (and platforms).

So far the new Estonian reporting regime is used only for taxation purposes. However, the model could be easily extended for social insurance schemes. An interesting feature of the Estonian case is its gradual approach. Instead of introducing a new legislation, they started with a pilot project on data transmission with selected platforms. This has helped to test the application and feasibility of this new tool and may be an avenue also for other ISSA countries. In a next step, Estonia plans to extent the information system further to other platforms.

Overall, the different country examples underline that various pathways are possible to obtain income information from platforms. Some opted for a voluntary cooperation with platforms (e.g. Estonia), while others implemented legal reporting obligations (e.g. France). A regular data transmission is applicable only in the US (but limited to workers with very high earnings and transactions) and in France from 2019 onwards. In Belgium and Estonia only selected platforms participate in the new data transmission regime. In Uruguay only platforms from the transport sector participate in the new regime. Thus, even these frontrunner countries are still far away from a complete data transmission procedure in the platform economy. This is not surprising given the infancy of the platform economy (see Section 3) and the public concern not to overburden these young digital markets with administrative obligations. Still, governments should prepare for a rise in the platform economy. Voluntary regimes, pilot projects with selected platforms or regulations which exclude smaller (start-up) platforms may be a good starting point to gather data from platforms.

All of the presented good practices profit from three key virtues of the platform economy: First, all economic transactions are digitally recorded and stored and therefore may be easily traced by public authorities. Second, platforms collect income information centrally often for a very

36 The situation may be different if the national market is very sizeable, e.g., in case of India or China.
large number of self-employed. Access to this comprehensive data can reduce administrative costs for public institutions compared to a situation where information is gathered for each worker separately. Third, a centralized income reporting by platforms allows to disburden platform workers. This lowers administrative costs for workers and may therewith increase effective social insurance coverage. Thus, the new platform economy poses great chances to improve social protection efficiency and coverage – in particular in developing countries with a large informal sector (OECE, 2018b, 195). The illustrated good practice examples have, however, also another aspect in common: All of the practical solutions discussed are bound to mainly local, physical platforms operating within the national borders. How to gather data from globally operating online platforms is, therefore, discussed further below.

8.2. Good practices: Contribution collection at source

If platforms inform about incomes of their workers why shouldn’t they also be involved in the contribution collection? Clearly, such a centralized contribution gathering could reduce administrative burdens for platform workers – which can be sizeable in particular if they work only a few hours per month (OECD, 2018a). Also fraud could be reduced if gig workers are not anymore responsible for the payment of levies. The following passages, therefore, discuss examples where a centralized contribution collection by the platforms has already been implemented.

In France platform workers may authorize platforms (opt-in) to make income or turnover (micro-entrepreneurs) declarations for and instead of the worker and to transfer contributions on the workers’ behalf to social insurance agencies. In Switzerland some platforms, such as gigme.ch automatically transfer social contributions (and taxes) to the respective public bodies. This service is provided for all workers of the respective platform, without any explicit opting out possibility. A similar regime is applied in Indonesia for motorcycle taxi platforms (such as GoJek), where a small amount of the taxi fare is deducted automatically for accident insurance (ILO and OECD, 2018). Also in Singapore some platforms transfer voluntarily contributions to social insurance institutions and Grab is the first platform which additionally matches social contributions of its self-employed workers in Singapore – similar to employer contributions (Grab, 2018).

Estonia shows that besides platforms also other institutions may be involved in the contribution collection. Since 2018 Estonian self-employed who offer their services on an occasional basis may request credit institutions to collect their contributions and taxes. The bank then automatically reserves a fixed share (20 per cent or 40 per cent depending on income) of the received amount and channels it to the Estonian tax authorities. The flat-rate levy reflects already possible expenses related to offering the services. If self-employed choose this simplified model they are exempted from submitting tax declarations, registering as an entrepreneur and from keeping records of expenses (ETCB, 2018). This model may, in theory, also be used for social contribution collection.

Interesting is also the case of Chile. There the government automatically deducts 10 per cent of each electronic invoice of self-employed – who did not opt-out of this system – and directs it to the pension fund of the person’s choice. Over- and under-collection is considered at the end of the year after the self-employed has filed his or her tax return. To ease the collection process contributions are in practice made by the corporate service buyers on behalf of the self-

37 See Gigme (2018). The platform intermediates peer-to-peer services and serves as employer (temporary work agency) if services are provided to companies. Foreign residents are not allowed to work via Gigme.
employed (MMP, 2018). In other words, contribution collection mimics a value-added-tax scheme. Important is that the Chilean model has become only possible due to the introduction of mandatory electronic invoices for taxable businesses. This example illustrates that tax and social contribution collection schemes should be considered and developed closely in tandem. From 2019 onwards Chile plans to make the scheme obligatory for all self-employed (Adecco, 2018). Electronic invoices are applied in various other countries, such as Mexico and Ecuador, to obtain information about platform activities – but so far only for tax purposes (OECD, 2018b, p. 201).

A question is whether social contributions shall be calculated based on gross income or on revenues. In France, Switzerland and Singapore, to our knowledge, gross income is applied to limit administrative costs for platform providers and workers (i.e. no expenses are considered). An alternative is to deduct a flat-rate value of costs (see Estonia). However, such a standardized approach may be problematic given the heterogeneity of platform work and costs involved (drivers may, e.g., have higher expenses than translators). A promising option is, therefore, to consider over-collection (caused by the application of gross income) after individuals have submitted their tax declarations (see Chile).

The examples underline that tax authorities are often more advanced in the detection and collection of platform related incomes/levies. Our survey reveals that already today in nearly half of countries surveyed (48 per cent) tax authorities inform statutory pension insurance about platform work incomes. Such data exchange/matching (e.g. in Finland or Portugal) increases the chance to detect social fraud. This cooperation should, therefore, be further strengthened and a joint contribution/tax collection system should be considered to reduce administrative burdens for all stakeholders involved.

Overall, it has been demonstrated that a contribution collection by platforms is in practice feasible and already used in some countries. The application is, however, still limited, most likely due to administrative costs involved. In fact, only selected platforms provide the collection service (Indonesia, Switzerland) or the service is offered only in case of worker’s request (France). The combination of tax and social contribution collection in Chile represents a promising and cost efficient avenue to achieve a “contribute-as-you-earn” regime for self-employed platform workers.

8.3. Good practice: Awareness and information campaigns

A lack of knowledge about available social protection may also play a significant role for low effective social insurance coverage (see section 7). To overcome this knowledge gap the digital economy creates new opportunities for well-targeted information and awareness campaigns of social insurance institutions. Platform workers can be informed directly at the platform about their duties and rights in terms of social insurance. Thus, in contrast to general, traditional information channels, e.g. via newspaper or television advertisement, information can be much better targeted in the digital economy. This advantage is exploited in France where platforms have to inform their workers since July 2016 about the social contributions (and tax) obligations applicable during transactions. This includes the provision of an electronic link to the websites

38 Chile was one of the first countries to implement such system. See Nasdaq (2018).
of the respective administrative authorities.39 On this basis, workers may receive further information on social regulations only one or a few clicks away.

8.4. Private initiatives to raise effective coverage

Numerous private sector initiatives have emerged recently to reduce insurance gaps of platform workers. This includes programs of freelancer cooperatives, trade unions and the insurance sector. Whether they can serve as a substitute or complement to public initiatives is discussed in the following.

Various **cooperatives of freelancers** are involved in the insurance of major life-cycle risks. Besides traditional self-employed they cover also platform workers. The Freelancers Union, for instance, the largest US cooperative of this kind with 350,000 members, provides health, life and disability insurance at relatively low costs for self-employed (Freelancers Union, 2018). Also SMart, a cooperative with 90,000 members across nine EU countries, offers insurance (e.g. of accident) (SMarteu, 2018). Additionally, SMart employs freelancers (partially) for a fee in countries with limited or costly legal access to social insurance for self-employed (e.g. Germany).40 Apparent is, however, that only a small share of freelancers is addressed by these cooperatives, so far. Thus, up to now these initiatives do not seem to significantly close coverage gaps.

**Trade unions** are actively campaigning for social and labour rights of platform workers, too.41 An exemplary result is the first collective agreement reached between a platform (Hilfr)42 and a trade union (3F) in Denmark in 2018. According to this agreement platform workers who have reached 100 working hours will automatically change from freelancer to an employee status (if they do not opt-out). As a result, they can benefit, inter alia, from employer pension contributions, minimum wage, holiday and sickness payments. While this may be an interesting model to combine the benefits of the future world of work with adequate social and labour protection, it is still an exceptional case. Many platforms seem not to be interested to reach agreements with trade unions, inter alia, because they regard themselves as intermediaries, rather than employers (UNI Global Union, 2018). Moreover, the model may be limited to local platform activities where working hours can easily be measured by time of physical presence. Without this condition it may be difficult to apply minimum wages – a standard employee protection.

Last but not least, **private insurance companies** increasingly aim to bridge the coverage gap of platform workers. Besides the big insurance players (e.g. Allianz or AXA) various startups (GigSuper, Yoss or Pasarpolis) compete on this growing market. They offer products specially tailored for gig workers with a high level of flexibility, digital access and usability. Private insurance may complement social insurance and fill the protection gap due to the often missing employee-employer relationship in the platform economy (e.g. absent company pension plans). For this purpose, platforms may negotiate cheaper group rates with insurance companies at the

39 See French Senate (2017, 50ff). The law also mandates platforms to send their users an annual summary of the gross income received through their site. This may facilitate administration and compliance of workers, too.
40 Often only a share of individual activities is covered under the SMart employment. Namely, the proportion, which corresponds to the minimum contribution basis to profit from social insurance. The remaining part remains self-employed extra income, often not covered by social insurance (see section 7). This practice is, therefore, discussable from a social policy perspective.
42 A platform providing cleaning services.
benefit of their workers. However, private insurances may also take over the function of traditional social protection, in particular, in countries with legal coverage gaps (see section 7). Whether such a substitution of social insurance is beneficial is questionable. First, it needs to be evaluated whether private insurance protection be deemed sufficient. If protection is too low, this may result in future societal costs. Moreover, it should be considered that private insurances, usually, do not entail redistributitional elements, which may be desirable from a social perspective (e.g. risk-neutral premiums or family support). Also the fiscal effect of such a substitution should be taken into account. Social insurance finances may erode if an increasing share of the labour market is insured by private instead of public schemes (usually financed on pay-as-you-go principle). Against this background, the growing private insurance coverage of platform workers should be closely monitored from a social policy and fiscal perspective.

8.5. How to cover cross-border, online platform work?

All of the good practices presented above are limited to local platform work. Thus, the open question is how to raise social protection coverage of workers who are active on globally operating online platforms (such as Upwork or Freelancer) – often with a high potential of social fraud. Usually, these platforms have little incentives to comply with national regulations as penalties can often not be expected for these foreign firms. Moreover, these platforms can benefit from a large pool of global workers. Thus, if regulations change in one country global platforms may use workers from other regions of the world. One theoretical solution to bridge the resulting coverage gap has been brought forward by Enzo Weber (2018) with the so called Digital Social Security (DDS) Accounts.

The proposal of Weber foresees that for each platform worker a personal DDS account is created which is administered by an international institution (e.g. ILO or World Bank). Platforms pay a fixed percentage of the agreed remuneration (e.g. 10 per cent) into the DDS account for their platform workers. Once a month the accrued DDS capital is transferred to the respective national social security systems (according to worker’s place of residence or nationality). National authorities may then decide how to distribute these contributions among the different national social insurance branches and to which extent contributions translate into entitlements and insurance claims. If DDS contributions are lower than national contribution rates, entitlements could be scaled down accordingly. If, on the contrary, they are higher, overpaid contributions could be paid out to platform workers.

The main virtue of this proposal is its simplicity, contribution collection at source as well as its adaptability to national regulations. Instead of a direct coordination with numerous national social security institutions, platforms have to correspond with one institution, only. Also the application of a uniform contribution rate facilitates administration. Altogether, this may increase effective insurance coverage in the gig economy. Still a number of questions regarding the Weber proposal remain open: How can platforms be motivated to participate in the DDS system? Which contribution rate shall be applied given the wide heterogeneity of social protection around the globe? Is a separate regime for platform workers desirable? The

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43 Uber, Deliveroo as well as GoJek are exemplary platforms that cooperate already with private insurance companies to offer insurance contracts for their workers. See ESIP (forthcoming) and Insurance, 2018.
44 In France, for instance, private insurances are used on a large scale to bridge the gap in statutory accident insurance of platform workers, see ESIP (forthcoming).
45 Fraud may be substantial if platforms are located abroad if platform workers judge it as unlikely that foreign platforms report their activities to the authorities of their residence country.
46 Weber proposes to start with a low contribution rate of only a few percent to gain acceptance.
potentially lower contribution rates for platform workers compared to employees or other self-employed may be seen as unfair and a distortion of competition.

Possible solutions are also debated on the international stage (OECD, 2018b) mainly to tackle tax evasion of cross-border platform work. One proposal is that global platforms should be required to provide information on their activities in a standardized format to involved tax jurisdictions. The data provision could be carried out similarly to the Common Reporting Standard, a multilateral agreement, which is used since 2017 to exchange information regarding bank accounts on a global level between tax authorities (OECD, 2018a, 202). The resulting data could be forwarded to social insurance institutions and thus be used also to fight social insurance fraud. Consequently, the OECD debate should be closely monitored by the ISSA and its members. In the end, a centralized collection of information by tax authorities may be preferred to the proposal of Weber if the aim is to limit administration burdens for platforms. Otherwise, platforms would be confronted with several reporting obligations (tax + social insurance). The question is, however, whether tax authorities could also collect social contributions from global platforms. If this is not feasible, the proposal of Weber to install a global contribution collection agency could be reconsidered.

9. Concluding remarks

Platform work is likely to rise significantly also in the coming years. Social protection schemes across the globe should prepare for this development. Crucial is to ensure both legal and effective social insurance coverage of these new digital work forms. This report has presented existing legal insurance gaps and various good practices to raise effective coverage across ISSA countries. It has underlined that the platform economy poses both new chances and risks for social protection. To profit from these opportunities ISSA members should further learn from each other and take actions in due time. Inactivity may cause an erosion of social security finances – already at risk by population ageing – and ultimately may lead to inadequate benefits. One possible consequence may be a decline in contributory schemes and a transition to tax financed, basic benefit schemes. But this is by no means a destiny. It is in our hands to adapt social protection to the new challenges of the digital economy.

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