Social Protection for Independent Workers in the Digital Age

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XX European Conference of the Fondazione Rodolfo Debenedetti
Pavia May 26th, 2018
The rise of alternative work arrangements

- International labour markets recently characterised by rises in “atypical” work arrangements
  - Self-employment (freelance, contract workers, agency workers)
  - On-call jobs, zero hours contracts

- Drivers:
  - Technological change (digitalisation)
  - Fissuring of traditional workplace (Weil, 2014)
  - Preferences for flexibility (Mas and Pallais, 2017)
  - Weak labour markets (Katz and Krueger, 2017)
  - Labour market policies (Datta, Giupponi and Machin, 2018)
Source: OECD and IFS
The rise of the «dependent-independent» (Euro area)

% of employment in working age (15-64)

- Self employed
- Self employed with one contractor

2010: 16%
2015: 17%

0% 2% 4% 6% 8% 10% 12% 14% 16% 18% 20%

2010

2015

● self employed  ● self employed with one contractor
Challenges for economists and policy makers

- **Understand employment conditions of independent workers**
  - Need for flexibility vs. hour constraints
  - Protection against labour market risk
  - Degree of business risk taking

- **Provision of social protection**
  - Reform of social security to increase coverage of social insurance and extend social insurance benefits to independent workers

- **Macroeconomic implications**
  - Labour market slack may no longer be captured by unemployment alone
  - Larger “reserve army” of underemployed workers potentially undercutting wages
  - Intensive margin of employment and degree of employment protection is becoming increasingly important in European and US labour markets
  - Minimum wages are no longer a wage floor
Outline

1. Evidence from comparable surveys in three countries
   - Italy
   - UK
   - US

2. Social protection for non-standard workers

3. Wage setting (macro implications)
Three surveys of independent workers

• Comparable surveys of self-employment, alternative work arrangements and the gig economy
  o Italy
  o UK
  o US

• Collect novel data on:
  o Demographics
  o Job characteristics, contractual conditions
  o Preferences for flexibility
  o Need for social protection
How many self-employed and gig-workers?

<table>
<thead>
<tr>
<th></th>
<th>Self-employed as % of WAPOP</th>
<th>% of self-employed who are also gig-workers</th>
<th>Gig-workers as % of WAPOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>15</td>
<td>2.5</td>
<td>2.6</td>
</tr>
<tr>
<td>UK</td>
<td>12</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>US</td>
<td>12</td>
<td>14</td>
<td>-</td>
</tr>
</tbody>
</table>

*Source: The data on self-employed as % of WAPOP are from OECD for Italy and UK, and from IRS and OECD for US. The data on gig-workers are from fRDB Survey (Italy), LSE-CEP survey (UK) and Princeton Self-employment Survey (US).*
The Italian survey

• Demetra web panel. Representative of working age population
• On line survey with 15,000 respondents
• Carried out between May 8 and May 15 2018 (thanks to fRDB!)
• Focus on GIG workers (jobs organized via on line platforms)
• Elicited willingness to pay for social insurance
• Literacy about the social protection system
Age distribution (self-employed) Median=40

Age distribution (gig-economy) Median=37

Source: fRDB Survey
Education
Italy

Source: fRDB Survey
Type of Gig-economy worker

Italy

Source: fRDB Survey
Weekly hours for Self-employed

Weekly hours for Gig-economy workers

Source: fRDB Survey
Weekly hours of work by type of Gig-economy worker
Italy

Source: fRDB Survey
Desired hours of work for Self-employed
Italy

Desired hours of work for Gig-economy Workers
Italy

Source: fRDB Survey
Reasons for working <35 hours - Self-employed

Italy

- Training: 5%
- No available work: 35%
- Domestic commitments: 20%
- Illness/Disability: 5%
- No need: 30%

Source: fRDB Survey
Reasons for declared hours of work - Gig-economy workers

Italy

- No available work
- Domestic commitments
- Illness/Disability
- No need
- Second work
- Other

Source: fRDB Survey
Source: fRDB Survey
Main reason for working in the Gig economy

Italy

Incidental expenses
Complement income personal
Complement income household
Only option
Other

Source: fRDB Survey
Number of contractors/clients - Self-employed

Italy

<table>
<thead>
<tr>
<th>Percent</th>
<th>1</th>
<th>2-5</th>
<th>6-15</th>
<th>16-50</th>
<th>&gt; 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>20</td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2-5</td>
<td>25</td>
<td>25</td>
<td>15</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>6-15</td>
<td>15</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>16-50</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Share of revenues from main contractor - Self-employed

Italy

<table>
<thead>
<tr>
<th>Percent</th>
<th>&lt; 25%</th>
<th>25%-50%</th>
<th>&gt; 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25%</td>
<td>50</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>25%-50%</td>
<td>20</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>&gt; 50%</td>
<td>10</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: fRDB Survey
### Income Insecurity

Suppose you have an unexpected expense of 500 euros. Based on your current economic situation, how would you cover it?

<table>
<thead>
<tr>
<th>Option</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>With the money currently in my checking/savings account or with cash</td>
<td>48.44</td>
<td>40.14</td>
</tr>
<tr>
<td>Pay it with my credit card</td>
<td>15.65</td>
<td>15.65</td>
</tr>
<tr>
<td>By starting a bank loan or a line of credit</td>
<td>2.6</td>
<td>4.42</td>
</tr>
<tr>
<td>By borrowing from a friend or a family member</td>
<td>15.45</td>
<td>19</td>
</tr>
<tr>
<td>By selling something</td>
<td>6.54</td>
<td>8.36</td>
</tr>
<tr>
<td>I wouldn't be able to pay for the expense right now</td>
<td>11.31</td>
<td>12.43</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: FRDB Survey*
The UK survey

• Trends in self-employment with and without employees

• LSE-CEP Survey of Alternative work arrangements
  - Online survey of 20,000 respondents
  - Representative of the UK population 18-65
  - Conducted between February 5 and March 2, 2018

• Focus on preferences for flexibility and social protection
  - Self-employed and gig-economy workers
  - Zero hours contracts (no minimum guaranteed hours)
Source: UK Quarterly LFS, ONS
Source: Family Resources Survey (FRS)
Age distribution (self-employed)

Median = 45

Age distribution (gig-economy)

Median = 30

Source: LSE-CEP Survey
Education

- Self-employed
- Gig-economy worker

Source: LSE-CEP Survey
Distribution of weekly hours for self-employed

Distribution of weekly hours for gig-economy

Source: LSE-CEP Survey
Desired hours of work for self-employed

Desired hours of work for gig-economy workers

Source: LSE-CEP Survey
Reason for not working more hours (self-employed)

- Underqualified
- No available work
- Domestic commitments
- Illness/Disability
- Other

Source: LSE-CEP Survey
Reason for not working more hours (gig-economy)

Source: LSE-CEP Survey
Reason for wanting fewer hours (self-employed)

Source: LSE-CEP Survey
Reason for wanting fewer hours (gig-economy)

- Student
- Illness/Disability
- Domestic commitments
- Leisure
- Other types of work
- Other

Source: LSE-CEP Survey
Source: LSE-CEP Survey
Main reason for being self-employed

- Only option
- Can work from home
- Prefer work from home
- Better pay
- Complement pay
- Earn while studying
- Flexibility
- Other

Source: LSE-CEP Survey
Main client, contractor or customer

Source: LSE-CEP Survey
## Income insecurity

**How would you pay for an emergency expense of £500,00?**

<table>
<thead>
<tr>
<th>Option</th>
<th>Self-employed</th>
<th>Gig-workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put it on my credit card and pay it off in full at the next statement</td>
<td>0.19</td>
<td>0.28</td>
</tr>
<tr>
<td>Put it on my credit card and pay it off over time</td>
<td>0.19</td>
<td>0.29</td>
</tr>
<tr>
<td>With the money currently in my checking/savings account or with cash</td>
<td>0.37</td>
<td>0.29</td>
</tr>
<tr>
<td>Using money from a bank loan or line of credit</td>
<td>0.06</td>
<td>0.17</td>
</tr>
<tr>
<td>By borrowing from a friend or family member</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>Using a payday loan, deposit advance, or overdraft</td>
<td>0.02</td>
<td>0.07</td>
</tr>
<tr>
<td>By selling something</td>
<td>0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>I wouldn’t be able to pay for the expense right now</td>
<td>0.19</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,131</strong></td>
<td><strong>535</strong></td>
</tr>
</tbody>
</table>

*Source: LSE-CEP Survey*
Zero hours contracts

• Contracts with no guaranteed hours or times of work

• Around 2.7% of all workers are recorded as being on ZHC (LFS, 2017)
  o More likely to be younger, female and lower tenure
  o Work 10 hours less than average employee + work unpaid hours
  o Low pay, large proportion on minimum wage
  o Concentrated on accommodation/food, retail, education and health care industries

• Zero hours contracts: necessity or choice?
  o Stark dichotomy between workers who value flexibility provided by ZHC jobs, and workers who would rather work more and more regular hours
Desired hours of work for ZHC

Source: LSE-CEP Survey
Reason for not working more hours (ZHC)

- Underqualified
- No available work
- Domestic commitments
- Illness/Disability
- Other

Source: LSE-CEP Survey
Reason for wanting fewer hours (ZHC)

Source: LSE-CEP Survey
Main reason for being on ZHC

Source: LSE-CEP Survey
The US survey

• Survey using Qualtrics software and panel of respondents conducted April 24-27, 2017 (week after Tax Day)
• Sample of 10,368 respondents recruited mainly from online ads and social media drawn from 4 million
• Paid $1.50 each to participate
• Drop those outside of U.S., whose only work was filling out surveys, jibberish responses, & speeders
• Weight sample to match 2011-15 ACS distribution of self-employed workers in terms of Age, Sex, Education, Race and Household Income
• A/B Experiment on CWS self-employment question
IRS vs. CPS data on Self-Employment as a Share of CPS Total Employment

Source: Current Population Survey; IRS Statistics of Income Publication 1304 (Table 1.3)
Note: Shading denotes recession
Hours constraints

- 40% worked less than 35 hours in self-employment last week
- 33% would have preferred to work more hours last week
- 15% were part-time for economic reasons (<35 hrs & couldn’t find full-time work, slack work/business conditions, or seasonal) – twice as high among those with self-employment only
- In CPS, self-employed more likely than traditional employees to be part-time for economic reasons
- Traditional employment often entails implicit contract for full-time, steady work

Source: Princeton Self-Employment Survey
Summary

• GIG workers are more constrained in the choice of hours than other persons classified as self-employed

• For the most they would like to work more hours

• Lower degree of satisfaction with the job in Italy

• Main reasons to accept gig jobs are to complement pay, work from home and have flexibility in hours

• Evidence of liquidity constraints for these workers (mainly in Italy)
Outline

1. Evidence from comparable surveys in three countries
   - Italy
   - UK
   - US

2. Social protection for non-standard workers

3. Wage setting (macro implications)
Coverage of social security

• Usually self-employed workers not covered by contributory social protection against unemployment risk, and sometimes maternity and sickness

• Moral hazard (and adverse selection) stand on the way of social insurance for independent workers

• How strong is the demand for social protection among self-employed people and platform workers? Which type of insurance are they willing to buy?

• Back to the surveys
Ranking of various benefits - Self-employed

Italy

Paid maternity leave
Paid sick leave
Workplace injuries insurance
Family allowance
Unemployment benefit
Retirement savings

Source: fRDB Survey
Source: fRDB Survey
Ranking of various benefits

UK

Source: LSE-CEP Survey
Rankings of Various Benefits

Source: Princeton Self-Employment Survey
Respondents asked to choose between:

Option 1: No paid sick leave

Option 2: Paid sick leave provided by social security (INPS) conditional on social insurance contribution at tax rate X% (varied randomly across individuals)
Summary

- Demand varies from country to country

- In Italy and UK stronger demand for retirement savings and unemployment insurance, in the US for health insurance

- In Italy GIG workers have much lower WTP for sickness insurance than self-employed.

- Stronger demand for work injury insurance (case of riders)
Policy options

• Very difficult to extend compulsory unemployment insurance to the self-employed and the GIG workers (limited examples)
  o Voluntary schemes? Adverse selection
  o Unemployment insurance with no employer?
  o Means-tested benefits with volatile labour earnings?

• Problems of moral hazard even with sickness insurance

• Draw on subsidized occupational insurance?

• Change the status of gig workers and self-employed with just one contractor into dependent employment?

• Use the traceability of on-line matching to enforce social security contributions and prevent abuse?
How to define unemployment for the self-employed?

- Sweden: closure of their business
- Austria: contribution to the unemployment insurance required since the startup
- Belgium: company should go bankrupt and they did not reach minimum income threshold in the previous two years
- Italy: short unemployment insurance for exclusive collaborators «collaborazioni coordinate e continuative» (DISCOLL)
Experience with the DISCOLL

- Unemployment benefit for exclusive collaborators who involuntarily lose their job
  - Extended to PhD students and researchers on temporary contracts

- Concerns about moral hazard, but low take up

<table>
<thead>
<tr>
<th>Year</th>
<th>Claimants</th>
<th>Potential beneficiaries</th>
<th>Claimants as % of beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>18403</td>
<td>232000</td>
<td>8%</td>
</tr>
<tr>
<td>2016</td>
<td>9864</td>
<td>121000</td>
<td>8%</td>
</tr>
<tr>
<td>2017(*)</td>
<td>12481</td>
<td>156000</td>
<td>8%</td>
</tr>
</tbody>
</table>

Notes: (*) Provisional data
Source: INPS
### Pro’s and Con’s of Shared Security Account

**where Broker (or Hirer) of Indep. Contractors Pays Into a Benefits Fund**

<table>
<thead>
<tr>
<th><strong>Pro’s</strong></th>
<th><strong>Con’s</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Independent workers covered by safety net</td>
<td>• Workers likely to bear the costs of benefits through lower fees</td>
</tr>
<tr>
<td>• Scale economies and reduced administrative burdens from pooling workers to provide benefits</td>
<td>• Risk of adverse selection in “cafeteria” plan</td>
</tr>
<tr>
<td>• Prevents free riding by requiring hiring party to contribute to benefits</td>
<td>• Hours proration is problematic because workers can work on multiple jobs at once or devote effort to personal tasks during work time (WA: 25% of fee up to $6/hour)</td>
</tr>
<tr>
<td>• Comprehensive solution that maintains flexibility and creates new social contract for 21st Century economy, especially if applied to all workers</td>
<td>• Only affects a small (but growing) slice of self-employed workers if confined to brokers</td>
</tr>
<tr>
<td></td>
<td>• Part of Independent Contractors’ fee is a return on capital</td>
</tr>
</tbody>
</table>
Pros and cons dependent employment status

**Pro’s**
- Link social security contribution to employer
- Easier to define unemployment spells and to tie means tested benefits to earnings
- Possibly less adverse selection?
- Mitigates transfer of demand/productivity risk from employer to independent worker

**Con’s**
- Payment on a hourly basis rather than linked to productivity (but possible to have piece rate pay and enforce accordingly hourly minima)
- May not satisfy individual’s preferences/need for flexibility
- Risk of worsening of employment conditions (e.g. zero hours contracts)
Pros and cons social security platforms

**Pro’s**

- They can reduce administrative costs for employers
- Improve risk sharing if payments are deposited at social security before the task is carried out
- Improve collection of social security contributions and awareness of workers that contributions are not taxes but insurance premia

**Con’s**

- May be costly for liquidity constrained and/or small firms
- Hard to implement/monitor given evolving nature of online economy
- Relationship with umbrella companies to be defined
Example of the INPS platform for occasional workers

PORTAFOGLIO ELETTRONICO - Riepilogo importi riferiti all’utilizzatore di Libretto Famiglia

<table>
<thead>
<tr>
<th>Importi versati</th>
<th>Importi utilizzati</th>
<th>Limiti economici</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VERSATO NELL’ANNO</strong></td>
<td><strong>UTILIZZATO NELL’ANNO</strong></td>
<td><strong>RESIDUO NELL’ANNO</strong></td>
</tr>
<tr>
<td>N° Titoli Libretto Famiglia</td>
<td>N° titoli libretto Famiglia</td>
<td>Compensi</td>
</tr>
<tr>
<td>Versato</td>
<td></td>
<td>Costi</td>
</tr>
<tr>
<td>Contabilizzato</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tot. Storico</td>
<td></td>
<td>Limite annuo netto</td>
</tr>
<tr>
<td>Titoli corrispondenti</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rif. importo contabilizzato

Rif. importo lordo

* NB: i compensi già erogati a prestatori categoria c.8 art.54-bis sono calcolati nella misura del 75%
Outline

1. Evidence from comparable surveys in three countries
   - Italy
   - UK
   - US
2. Social protection for non-standard workers
3. Wage setting (macro implications)
Does spread of alternative forms of employment explain why do wages not grow during the recovery?

- Alternative work arrangements responsible for almost all of net employment growth in US from 2005 to 2015
Wages are not coping with productivity growth (and unemployment declines)

**Source:** Eurostat
Median hourly wage by type of Gig-economy worker

Italy

Source: fRDB Survey
Minimum wages and zero hours contracts

• Are ZHCs inherently low-paid jobs (tasks, skills, flexibility...) or are minimum wage uprates responsible for increased ZHC utilization?
  o ZHCs can help employers buffer wage cost shock due to minimum wage increases
  o Transfer burden of insecurity onto employees, potentially worsening their employment conditions in spite of wage increase

• Study causal effect of National Living Wage introduction on ZHC utilisation\(^1\)
  o NLW increased minimum hourly rate for adult workers to £7.20 from April 1, 2016
  o Context of English adult social care sector (care homes and domiciliary care)

• For a domiciliary care worker paid at MW, hourly wage up by 7.5% and probability of being on ZHC up by 4.7%
  o Should we have a higher minimum wage for ZHC workers (Taylor Review, 2017)?

Notes: \(^1\) Datta, Giupponi and Machin (2018)
Distribution of ZHC jobs by hourly wage

Number of jobs:
- Below £7.2 (Pre-NLW)= 29510
- Below £7.2 (Post-NLW)= 8140
- Between £7.2-£8.8 (Pre-NLW)= 25885
- Between £7.2-£8.8 (Post-NLW)= 52251

Total change in ZHC jobs below £8.8
(Post-Pre) = 4996 ZHC jobs (+9%)

Source: National Minimum Dataset for Social Care (NMDS-SC)
Number of jobs:
- Below £7.2 (Pre-NLW) = 115693
- Below £7.2 (Post-NLW) = 41580
- Between £7.2-£8.8 (Pre-NLW) = 81315
- Between £7.2-£8.8 (Post-NLW) = 157428

Total change in jobs below £8.8 (Post-Pre) = 2000 jobs (1%)

Source: National Minimum Dataset for Social Care (NMDS-SC)
Final remarks

• Alternative work arrangements have increased in recent years, even in countries in which traditional self-employment is declining (e.g. Italy)

• Evidence that new self-employed are particularly hourly constrained and would like to work more hours

• Heterogeneity in pay, but significant component with low pay

• Strong demand for social protection, notably unemployment and retirement in Europe and health insurance in US

• Need to redesign social transfers and wage floors