

# AI, ROBOTS AND PLATFORM WORKERS: WHAT FUTURE FOR EUROPEAN WELFARE STATES?

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# The impact of automation on workers

- Concerns that technological innovation leads to unemployment or poor work conditions are long-standing.
  - The Luddites (1811 – 1816)
  - Samuel Butler's *Erewhon* (1872)
  - Karel Capek's *Rossum's Universal Robots (R.U.R.)* (1921)
  - Fritz Lang's *Metropolis* (1927)
- John Maynard Keynes predicted widespread unemployment “due to our discovery of means of economising the use of labour outrunning the pace at which we can find new uses for labour”. (1933)
- In the nineteenth and early twentieth centuries, this was largely a matter of de-skilling jobs, creating assembly lines, mass production.
- Today, automation is driven by mainly by digitalisation.

# The problem

# AI, robots and platform workers: What future for European welfare states? The problem

- How much unemployment to expect?
- Labour flexibility
- Social protection of non-traditional employees and the self-employed
- Differences among the member states

# How much unemployment to expect?

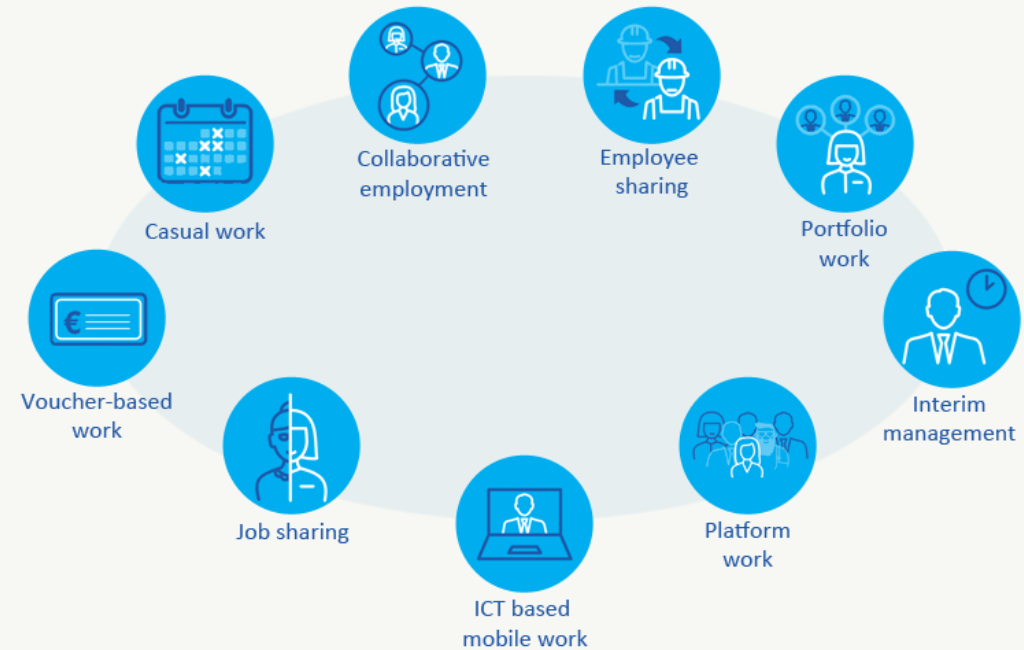
- In the medium to long term, the combined impact of AI, big data and machine learning is difficult to predict.
  - These technologies will eliminate some existing jobs but will also create new jobs.
  - Predictions that were popular a few years ago that half the population might be unemployed now seem unlikely.
- To date, the use of robots does not appear to be associated with a marked increase in unemployment.
- AI will likely have a far broader impact because it affects all service sectors, not just manufacturing (a small sector).

# How much unemployment to expect?

- Most experts (e.g. Arntz et al, 2017) have now concluded that the actual level of unemployment to be expected as a consequence of digitalisation is nowhere near the 47% that Frey and Osborne (2017) predicted.
- Some empirical analysis, including our own, finds that unemployment is actually *lower* today in EU regions that have seen the greatest deployment of robots and ICT.
- There is a related tendency toward *job polarisation* with routine jobs requiring moderate levels of skill declining relative to both those at the bottom (that require fewer skills) and those at the top (that require greater skill levels).

# Labour flexibility: New forms of work are emerging

- Many new forms of work have emerged recently.
- Nearly 10% of European adults have done platform work at least once.
- Examples include Uber drivers and Amazon Mechanical Turk (AMT).



Source: Eurofound (2018)

# Labour flexibility: A look at the literature

- These new forms of work are best understood as a further evolution of a tendency to *labour flexibility* that was already visible at least thirty years ago (cf. Atkinson (1984), Atkinson and Meander (1986)).
- Lifetime full-time employment was already declining.
- Many firms were re-structuring their operations so as to make increasing use of part-time employees, agency temporaries, and contractors, gaining significant new flexibility by doing so.



# Labour flexibility: Motivation for firms

- Firms faced the need to deal with
  - Market volatility and uncertainty;
  - Rapid technological change; and
  - The need to increase productivity.
- The firms sought to deal with this by more flexibility in
  - The number of employees and of their hours worked;
  - The skills profile of the work force; and
  - Wages and benefits provided.
- Flexibility today can provide benefits to workers as well.

# Labour flexibility: Different approaches for different workers

- Firms would be motivated to train and retain the core group, but less so the peripheral and external groups.

Group	Basis for pay	Skills	Training and retention	Job security
<b>Core group</b>	Performance	High, firm-specific	Important	High
<b>First peripheral</b>	Hours worked	Moderate	Less important	Moderate
<b>Second peripheral</b>	Hours worked?	Low	Unimportant	Low
<b>External</b>	Tasks done?	High or low, but not firm-specific	Unimportant	Nil

Source: Bruegel based on Atkinson (1984)

# Social protection of non-traditional employees and the self-employed: Statutory gaps

	Casual workers	Seasonal workers	National specificities	Freelance	Apprentices	Trainees	Vocational trainees
Unemployment benefits	RO, HU, MT, LT	BG, RO, LV, HU, MT, LT	AT <sup>a</sup> , CZ <sup>b</sup> , DE <sup>c</sup> , PL <sup>d</sup> , SK <sup>e</sup>		BE, EL, HR, MT, NL, PL	EL, FR, IT, LT, MT, NL, PL, RO	
Sickness benefit	HU, LT, LV, RO	HU, LT, LV, RO	CZ <sup>b</sup> , SI <sup>d</sup>		BE, HU, NL, PL	DK, FR, HU, LT, NL, PL	DK, EL, FR, HU, PL
Maternity benefit	LT, RO	BG, LT, LV, RO	CZ <sup>b</sup> , PL <sup>d</sup> , UK <sup>h</sup>	BG, FR	BE, MT	FR, HU, IT, LT	EL, FR, HU, IT
Accident and occupational injuries	RO, HR, LT	BG, LT, LV, RO	CZ <sup>b</sup> , ES <sup>f</sup>				
Old age/survivors' pensions	MT, LT	BG, HU, RO, LT	CZ <sup>b</sup> , HU <sup>g</sup> , LU <sup>g</sup> , MT <sup>h</sup> , PL <sup>d</sup>		BE, HR, MT	EL, FR, HU, IT, LT, MT	
Invalidity	HU, LT	HU, LT	AT <sup>a</sup> , PL <sup>d</sup>				

Source: ESDE (2018), page 137.

# Social protection of non-traditional employees and the self-employed: Practical gaps

- Many benefits are conditioned on eligibility periods, or on a level of contributions over a period of years.
- As workers transition among different forms of non-traditional work,
  - they may be unable to meet the eligibility periods, or
  - they may not accrue enough combined benefits if time from different forms of labour are not properly aggregated.
- Current Regulations are limited to traditional employees who move from one Member State to another.

# Who pays? Who Benefits? Bismarck versus Beveridge

- There are two main systems for benefits such as health care.
  - Insurance-like models similar to those introduced in Germany in the late Nineteenth Century under Chancellor von Bismarck.
  - Systems like the British National Health Service which is available to all, named for Beveridge (whose work provided key foundations for the British social welfare system).
- All member state systems reflect elements of both.

	<b>Bismarck</b>	<b>Beveridge</b>
<b>Payments</b>	Employers and/or employees	General government revenue
<b>Beneficiaries</b>	Employees and their families	All citizens

Bruegel based on Kutzin (2011)

# Differences among the member states

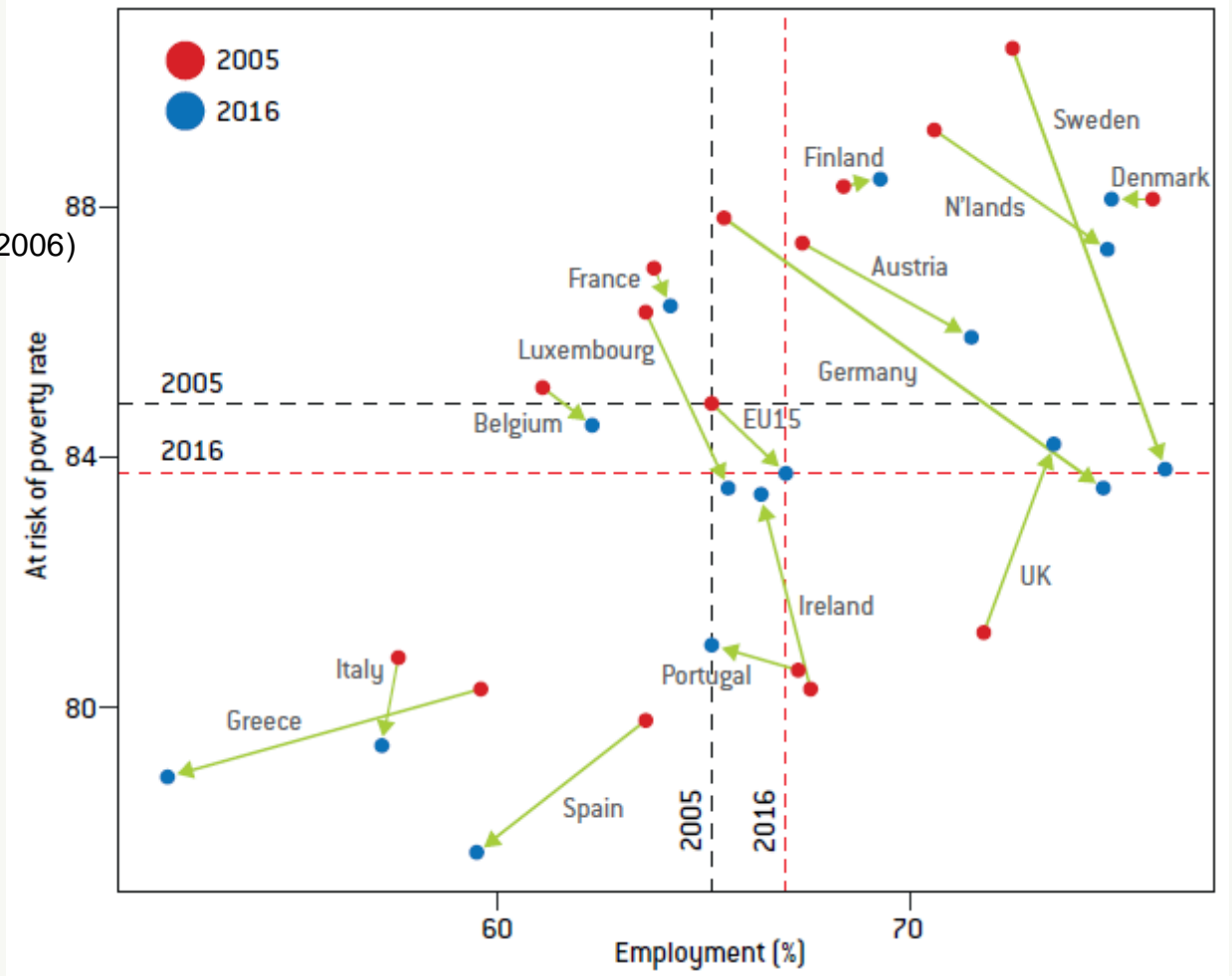
- Under the TFEU, responsibility for social protection rests primarily with the Member States.
- Very large differences exist among the member states.
- Sapir (2006) compared member states in terms of *efficiency* and *equity*.
- We show how things have evolved since, using:
  - **Efficiency**: the employment rate.
  - **Equity**: 1 minus the ‘at risk of poverty’ indicator.

# Differences among the member states

## Shifts in efficiency and equity among EU member states, 2005 and 2016

Source: Bruegel based on Eurostat data and the conceptual model of Sapir (2006)

- Front-runners that are both equitable and efficient tended to gain in efficiency but decline in equity.
- Laggards that are neither equitable nor efficient tended to lose on both dimensions.
- Inequitable but efficient countries became more equitable.
- Equitable but inefficient countries showed little change.



# Addressing the problems



# Avoiding misclassification of workers

- Workers whose conditions are scarcely distinguishable from those of employees should not be denied benefits due to “sham self-employment”.
- Member state definitions vary greatly, sometimes even within the member state for different purposes.
- The EU should work to strengthen consensus and to build convergence on classifications.
- If benefits for all categories of work are adequate, the issue becomes less problematic.

# Statutory coverage of non-traditional workers and the self-employed

- Political agreement has been reached on a Council Recommendation that urges all member states to extend “formal coverage on a mandatory basis to all workers, regardless of the type of their employment relationship”, where any differences should be proportionate.
- This still leaves tricky questions about who pays, who benefits.
- Under a Bismarckian system, it is not clear how to cover workers who work too few hours.

# Aggregation and transferability of benefits across different modes of work

- The same Council Recommendation goes beyond the 2004 and 2009 Regulations to urge member states to “ensure that entitlements ... are accumulated, preserved and transferable across all types of employment and self-employment statuses ...”

# A shift in the direction of universal benefits?

- Many of these issues are simpler in a so-called Beveridgean system where benefits are available to all.
- Once coverage is extended to all *citizens* instead of to all *employees*, these problems should largely be solved.
- In reality, no member state is purely Bismarckian, nor is any member state Beveridgean in every respect.
- A widespread shift seems unlikely in the medium term.
- The obligation to cover more people would probably lead to increased costs.

# Participation in social dialogue

- The self-employed are prohibited in many member states from participating in social dialogue (which includes joining unions and participating in strikes).
- This seems inappropriate – the participation in social dialogue of drivers who work for ride-hailing services does not seem to be anticompetitive.
- At the same time, organisations that participate in social dialogue will need to modernise and adapt in order to remain relevant in the workplace of the future.

# Preserving the dignity of workers

- Platforms can have effect of introducing intensive surveillance into the workplace.
- For firms to monitor the efficiency of workers is not nefarious per se, but the ability of labour platform firms to perform surveillance on the worker is enormous.
- At what point does this become an improper intrusion against the dignity of the worker?
- There is no easy answer, but a balance must be struck.

# Funding the welfare state

- Expanding coverage tends to imply increased cost.
- Funding, however, was already under stress due to:
  - Declining labour share in gross value added;
  - Demographic challenges with an aging population; and
  - Difficulties in properly taxing the digital platforms (BEPS).
- The challenges manifest differently in (mainly) worker-funded Bismarckian systems compared to (mainly) universal-coverage Beveridgean systems.

# Funding the Bismarckian welfare state

- The exact impact is hard to estimate, since most member states provide some benefits to non-traditional workers the self-employed.
- Any reclassification of currently self-employed workers might impact both revenues and expenditures.
- Increases in the employer contribution risk reducing employment; however, these linkages are complex.
- New funding sources will probably need to be found.



# Funding the Beveridgean welfare state

- The *structure* of funding of universal social protection is arguably superior to that of a purely worker-funded system, but the *level* of funding must be adequate.
- As noted, costs might be higher due to more coverage.
- Universal coverage systems will also need to guard carefully against so-called welfare tourism.

# Universal Basic Income / Negative income tax

- Proponents argue that this reform would help to redistribute the benefits from automation and digitalisation.
- Critics stress that financing universal basic income would require higher taxes and might lead to unintended consequences such as the reduction of people's willingness to work.
- If the level of unemployment to be expected is modest, there would be little need for UBI.

# Managing rapid change

- Even in the absence of a massive net reduction in employment, changes to the *nature* of work will be hugely disruptive.
- Social protection will need to step in to help people (especially the medium skill workers most at risk) get back to work without falling into poverty while they make the transition from obsolete jobs to newly-created jobs.
- A shift from traditional forms of education and training to a focus on lifelong learning is urgently needed.
- It will be necessary to overcome the institutional rigidity that gets in the way of flexible career changes.

# The Council Recommendation

- The Council Recommendation strikes the right balance and establishes the right principles, but is a recommendation that does not create binding obligations.
- The Commission should monitor and benchmark implementation by member states to ensure that reasonable standards are met.
- In doing so, the goal of protecting workers should take precedence over harmonisation across the member states.