Risks of technological unemployment and support for redistributive policies

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Outline

- **Context, literature and contribution**

- **Key research questions**

- **Data and descriptive evidence**

- **Econometric strategy and results**

- **Conclusions**

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- **All across the world economy, workers are increasingly exposed to sources of uncertainty affecting (and potentially reshaping) their behaviour and preferences**

- **Among these sources a privileged place is held by labor-disruptive technological change that is recognized as a key driver of polarization and inequality in terms of employment and income**

- **Tech-related uncertainty may**
  - **induce precautionary behavior (consumption and savings)**
  - **affect workers' preferences for redistributive policies**

- **Fear of massive tech-unemployment and economic studies aimed at quantifying such risks (*Frey and Osborne, 2017; OECD, 2017; Acemoglu and Restrepo, 2017; Autor, 2015*)**

- **These fears may be among the causes of the rapidly changing political sentiment and attitudes in many advanced countries**

- **Nevertheless, no specific attention (with the exception of Thewissen and Rueda, 2017) in the comparative political economy literature so far devoted to identify the role of exposure to tech-unemployment risks in accounting for political preferences and behavior**

- **This paper links together**: a) economics approach to the technology-employment relationship (relying on the conceptual and empirical framework proposed by *Autor et al. 2003*) with b) comparative political economy approaches investigating the relationship between labor market insecurity and socio-political preferences (*Rueda 2007; Emmenegger et al. 2012; Häusermann, Kurer and Schwander 2015, 2016*)

- **The focus is on Italy** (relevant test bed due to recent and intense policy debate around UBI/GMI proposals) and takes advantage of a **unique dataset** merging information on: a) socio-political preferences from the 8th ESS round; b) routine task measures at the occupation-level drawn from the INAPP ICP (i.e. the 'Italian O*Net')

✓ **RQ – Is there a relationship between the exposition to tech-unemployment risks and policy preferences with respect to redistributive policies?**

✓ **RQ 1a – Does higher exposition to the risk of technological unemployment affect Italian workers' preferences for Universal Basic Income (UBI) schemes?**

✓ **RQ 1b – Does higher exposition to the risk of technological unemployment affect Italian workers' preferences for Generalized Minimum Income (GMI) schemes?**

- **The adopted dataset merges information on: a) socio-political preferences from the 8th round of the Italian ESS (*representative sample of 2026 individuals surveyed in 2017*) b) task routinarity (Routine Task Index from Autor et al 2003) drawn from the INAPP ICP c) labor market variables at the occupation-level from the Italian LFS**

- **Technological risk exposure: Routine Task Index (capturing the relative routinarity of tasks at the 5-digit occupation level); Perceived risk of tech unemployment (ESS question – 'Out of 100 persons doing the same job as yours, how many do you think will lose their job in the next 10 years because replaced by machines?')**

- **Preference for redistribution: Support for UBI (ESS question – Agree or disagree on a 5 point scale, recoded as binary); Support for GMI (As for UBI)**

- **Controls (ESS variables): Socio-demographic characteristics; Labor market characteristics; Income-related variables; Social class; Generic preference for redistribution; Politics-related variables; Regional controls**
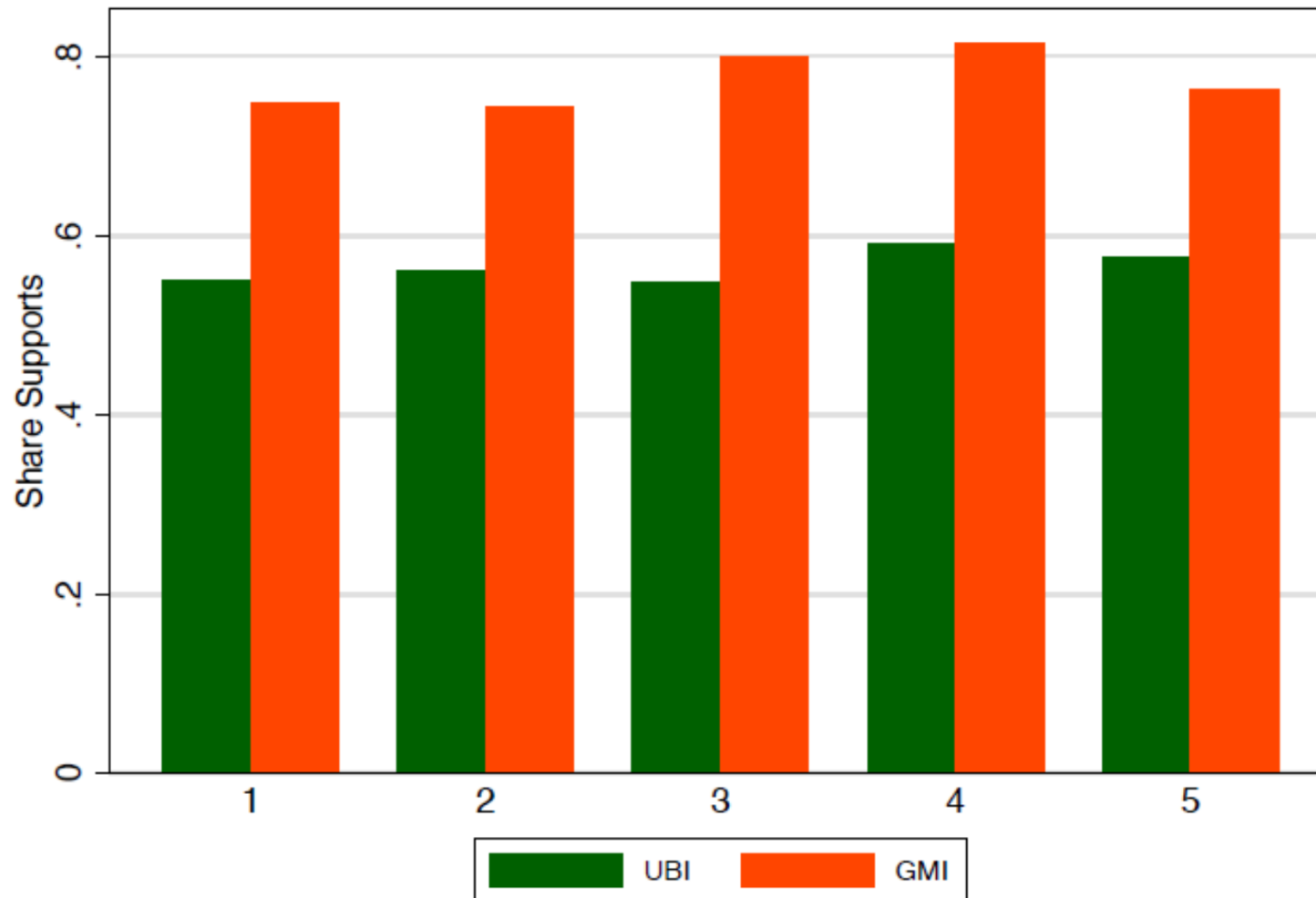
Data and descriptive evidence (2)

Employment dynamics vs degree of task routinarity (RTI (2012) quintiles, % 2011-2016)
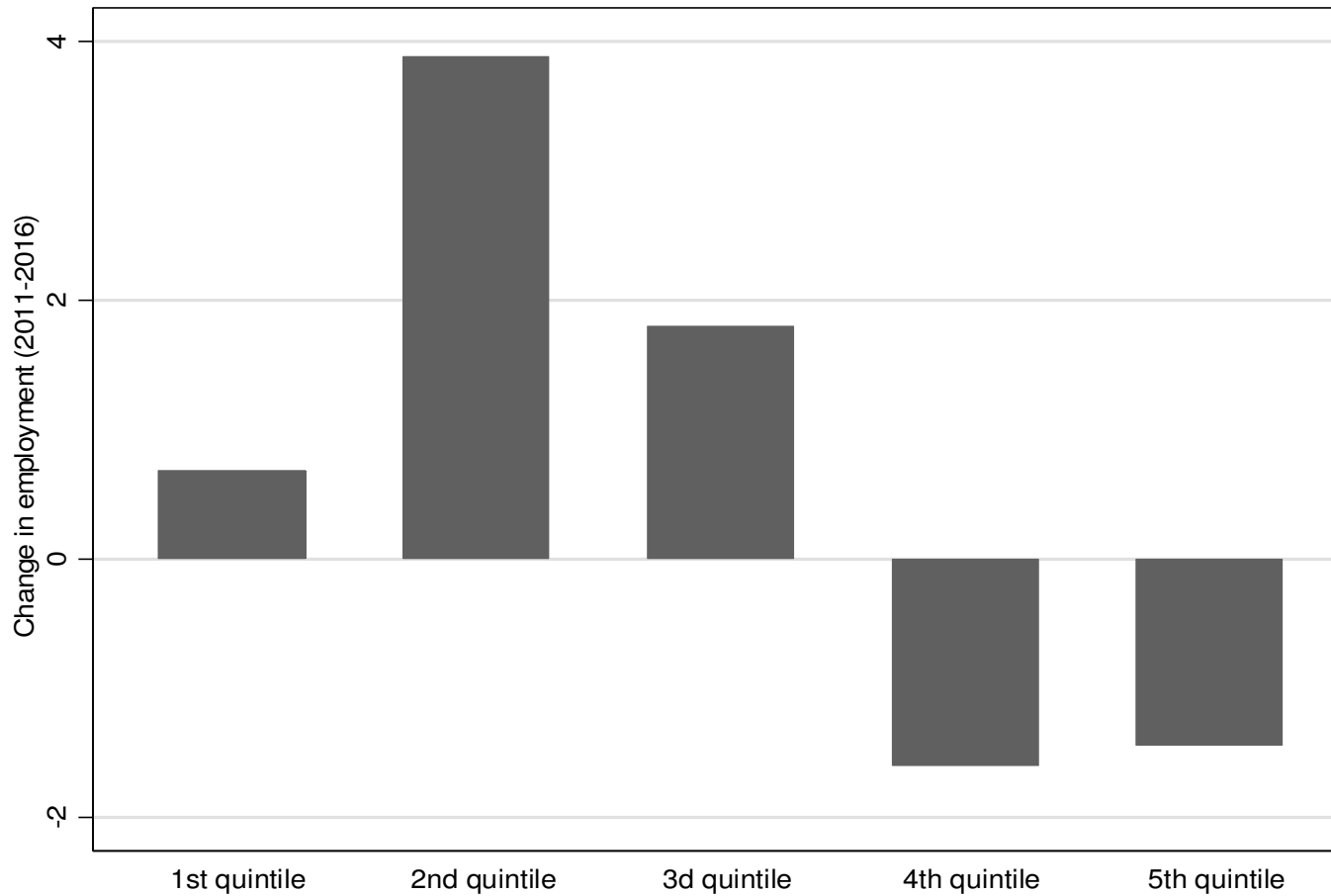
Support for basic income and minimum income vs degree of task routinarity (RTI quintiles)

Support for basic income vs RTI and controls

	Supports UBI	Supports UBI	Supports UBI	Supports UBI	Supports UBI
High-RTI	0.049		0.122**	-0.036	-0.028
	[0.043]		[0.058]	[0.081]	[0.091]
dummy_perceived risk techunempl >15%		0.012	-0.003		
		[0.057]	[0.057]		
dummy_perceived=1				-0.154*	-0.158*
				[0.080]	[0.081]
dummy_perceived=0 # highRTI=1				ref	ref
dummy_perceived=1 # highRTI=1				0.287***	0.297***
				[0.104]	[0.106]
Observations	748	346	341	341	340
R2	0.053	0.116	0.132	0.151	0.152

- **Positive** correlation with est. individual risk of being unemployed, part-time
- **Negative** correlation with 'female' dummy, vars. capturing regional unemployment (puzzling)

Support for minimum income vs RTI and controls

	Supports GMI	Supports GMI	Supports GMI	Supports GMI	Supports GMI
High-RTI	0.091**		0.152***	0.114*	0.080
	[0.036]		[0.050]	[0.065]	[0.080]
dummy_perceived risk techunempl >15%		-0.033	-0.043		
		[0.047]	[0.047]		
dummy_perceived=1				-0.079	-0.082
				[0.070]	[0.071]
dummy_perceived=0 # highRTI=1				ref	ref
dummy_perceived= 1 # highRTI=1				0.068	0.066
				[0.090]	[0.091]
Observations	735	341	337	337	336
R2	0.105	0.133	0.156	0.158	0.163

- Positive correlation with high income, education, left, higher variation unemployment rate 2006-16; (strong) with income support to migrants working since at least one year

- Negative correlation with union membership, children at home, overestimation of actual unemployment rate, regional trade openness, regional trade opennessXregional unemployment rate

Support for minimum income ONLY vs RTI and controls

	GMI only
High-RTI	0.196**
	[0.096]
dummy_perceived risk techunempl >15%	0.129**
	[0.057]
dummy_perceived=0 # highRTI=1	ref
dummy_perceived=1 # highRTI=1	-0.237**
	[0.060]
Observations	363
R2	0.140

- **Key results:**

✓ **The Italian case displays high levels of support for both UBI and GMI, but with the highest support for GMI, thus for a means-tested, conditional measure (distributive deservingness)**

✓ **For those more objectively exposed to risk of tech unempl, subjective risk perception increases support for UBI**
✓ **Strong impact of both RTI and high perception of subjective risk on GMI only, but negative interaction**

✓ **Support for UBI across political spectrum; support for GMI correlates with left; inclusion of migrants if they work; education; support for GMI reduced by union membership**

- **Take home message and final remarks:**

✓ **The risk of technological unemployment is confirmed as an urgent issue not only per se but also due to its impact on socio-political preferences. Well-tailored redistributive policies might thus contribute to reduce fears and reconcile objective and perceived social conditions**

✓ **Additional research (both quantitative and qualitative) is needed to corroborate and qualify the reported evidence**

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