

Evaluating hiring incentives: Evidence from Italian firms


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Motivations and aim of the paper

- Active Labor Market Policies participation has been intense in recent decades, especially during the recovery from the financial crisis.
 - The economic literature generally concentrates on subsequent labor market performance of unemployed people that have participated to training programs or have spent a period in a subsidised job.
 - The effects of a programme on firms' behaviour have rarely been evaluated
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- This paper wants to propose an **evaluation of the private sector incentives to employers programme established by the Italian legislation for 2017.**

Overview

- Related literature
- Institutional framework
- The empirical strategy.
- Results.
- Conclusions and future research.

Active Labour Market Policies (ALMPs) as:

- Opportunities for unemployed people who search for work, instrumented to increase the efficiency of the matching process between labor demand and supply of skills (Cahuc et al. 2014, Crépon and van de Berg 2016).
- A significant share of European States have adopted ALMPs and have assessed their effects (see Heckman et al. 1999, Martin and Grubb 2001; Kluve and Schmidt 2002).
- Subsidized public sector employment programs usually have the least favourable effect whereas job search assistance programs are quite favourable in the short run, training may have some positive effect in the medium and long run (Card et al. 2010; Kluve 2010)
- Counselling and job-search assistance measures result to have positive effects, whereas employment public schemes seem to be ineffective (ILO 2016)
- Long-term job training measures or private employment subsidies are particularly effective during a recession period (Card et al 2018)

Private sector incentives for employers

- Demand-side market measures that include making available to employers wage subsidies or targeted reductions in social security contributions for employers
- Hiring incentives can also be measures that point at favouring the conversion of temporary contracts into open-ended ones (see, e.g., Bovini and Viviano 2018, Sestito and Viviano 2018).

Aims:

- To reduce part of the wage costs and thus encouraging employers to hire new workers.
- To reintegrate long-term unemployed into the labour market,
- To stimulate the labor demand in particular areas and sectors characterized by high unemployment
- To support people at risk of labour-market exclusion such as women, older workers or the young.

Literature on hiring incentives for private sector

- Betcherman et al. (2004): most evaluations of subsidies do not show positive impacts on post program employment or earnings.
- Kangasharju (2007): employment subsidies in Finland increased the firms' payroll by more than the size of the subsidy.
- Sianesi (2008): incentives for private sector firms have generally positive effects on employment of disadvantaged people

For Italy

- Cipollone and Guelfi (2003) and Cipollone et al. (2004): tax credit incentive on new hirings on an open-ended contract basis does not produce a significant increase in the overall likelihood of employment;
- Battirolo and Mo Costabella (2011): ESF-financed incentive for the conversion of temporary contracts into permanent contracts in the province of Turin in 2007 have marginal effects on hiring intentions, reaching only firms that had already planned to stabilize a worker;
- Sestito and Viviano (2018): two policies introduced in the first part of 2015 are effective in both shifting employment towards permanent contract and raising overall employment levels.

Institutional framework

- The Italian legislation provides very wide eligibility, basically stipulating that all firms are eligible with the only exception for one type of subsidy which is dedicated to firms located in the regions of the South of Italy and in the Islands.
- Hiring incentives are delivered on the basis of job-specific applications submitted by firms to the National Social Security Institution (INPS).
- In particular: *Garanzia Giovani, Occupazione Sud, Esonero Sistema Duale*.
- The incentive is paid as a contribution break (*sgravio contributivo*) and it is due for all hires made **from 1 January 2017 to 31 December 2017** with: permanent contract; apprenticeship contract (also seasonal if provided by the collective agreement) with a duration of 12 months or more; fixed-term contract whose initial duration is equal to or greater than six months.
- The benefit is equal to the employer's social security **contribution within the maximum limit of € 8.060 (€ 4.030 if the worker is hired under a fixed-term contract)** to be used over 12 months starting from the hiring date.

Institutional framework

- **Garanzia Giovani** (The *Decreto Direttoriale* n.394/2016) It provides an incentive for those private employers who hire young people registered to Y.G. program;
- **Occupazione Sud** (*Decreto Direttoriale* n.367/16) To encourage employment in the "less developed" (Basilicata, Campania, Apulia, Sicily, Calabria) or "in transition" (Abruzzo, Molise and Sardinia) regions. It is recognized to all private employers who hire new employees.
- **Esonero Sistema Duale** (*Legge di Bilancio 2017*) It provides the total contribution break for a maximum of 36 months for private firms that hire, within 6 months from the acquisition of the qualifications, under-30 students who have carried out alternation-school-work activities at the same employer, or apprenticeship periods for professional qualification and diploma, upper secondary education diploma and certificate of higher technical specialization or periods of apprenticeship in higher education.

In 2017 other incentives for employers

- for those who hire young people aged between 15 and 29 with an apprenticeship contract (Youth and Apprenticeship);
- for: hiring women, and workers over 50, workers in disadvantaged categories or with ascertained disability status as well as recipients of NASpI and *Cassa Integrazione* (Cig).

The empirical strategy

- To evaluate the causal effect of hiring incentives begins with estimating the following simple linear relationship:

$$HShare_{i,t} = \alpha + \beta \cdot HI_{i,t} + \gamma \cdot M_{i,t} + \delta \cdot W_{i,t} + \lambda \cdot F_{i,t} + t + \mu_i + \varepsilon_{i,t}$$

$t=[2010,2015,2018]$

- $HShare_{i,t}$ is the share of newly hired over the total employment
- $HI_{i,t}$ is a dummy equal to 1 whether the i firm hired by using incentives in the sample year 2017, 0 otherwise;
- $M_{i,t}$ is the vector including managerial and corporate governance characteristics;
- $W_{i,t}$ represents the workforce composition;
- $F_{i,t}$ formalizes a rich set of firms' productive characteristics, geographical location and sectorial specialization

The empirical strategy

- **Treatment group:** those firms declaring to have used incentives in 2017 ($HI = 1$) to hire new workers;
- **Control group:** all the firms that did not use incentive ($HI = 0$) in sample years 2010 and 2015 and all firms that did not use them after the policy intervention.
- **Three models:** Pooled OLS; Fixed-Effects; *Difference-in-Difference*

$$Hshare_{i,t} = \alpha + \beta_1 \cdot HI_i + \beta_2 \cdot t + \beta_3 \cdot HI_i \cdot t + \gamma \cdot M_{i,t} + \delta \cdot W_{i,t} + \lambda \cdot F_{i,t} + \mu_i + \varepsilon_{i,t}$$

$t=[2010, 2015, 2018]$

Crucial assumptions for the *Diff-in-Diff* approach:

- *Common Trend Assumption (CTA):* we should observe parallel trends in the outcome of treated and controls firms in absence of treatment;
- *Potential biases rely on selection on observables.* That is the set of covariates in second Equation is rich enough to include all factors determining the self-selection of firms in using incentives.

- Innovative question reported in RIL questionnaire for 2018: it is possible to develop the hypothetical prediction of what would have happened in the absence of the intervention: **counterfactual situation!**



- We **control for bias due to unobservable characteristics** inducing a firm to use hiring incentives
- We try to solve the usual causal inference problem: the construction of control group

The RIL questionnaire of 2015 and 2018 provides data about the use or not-use of incentives to hire:

- **Nel corso del (2017) sono state effettuate assunzioni usufruendo di incentivi pubblici per l'occupazione?**
 1. Sì
 2. No

In 2018 questionnaire an additional innovative question:


- **In assenza di questi incentivi l'impresa avrebbe:**
 1. effettuato comunque le assunzioni, per lo stesso ammontare
 2. effettuato comunque le assunzioni, per un ammontare minore
 3. non avrebbe effettuato le assunzioni.

- **Source:** “*Rilevazione Imprese e Lavoro (RIL)*”- INAPP.
- **Years:** 2018, 2015, 2010.
- **Sample:** about 30,000 partnerships and limited liability firms operating in the non-agricultural private sector.
- **Panel component:** 35% for each wave.
- **Selection on sample:** firms with more than 9 employees as to consider firms with a minimum level of internal labor market → final sample approximately 2,500 firms observed in each sample years.
- **Outcomes:** **The share of newly hired workers** over the total employment.
- **Treated variable:** **Dummy variable for the use of incentives**
- **Control variables:** i) management and corporate governance of companies, ii) workforce characteristics, and iii) other firm characteristics (size, product and process innovation, exports)..

	Pre-Treated		Pre-Control		Post-Treated	Post-Control
	2010	2015	2010	2015	2018	2018
Mean	0.106	0.108	0.112	0.086	0.182	0.114
Std. Dev.	0.177	0.160	0.192	0.174	0.136	0.193
N of obs	297	302	1,699	1,645	309	1,625

- A difference regarding the number of observations between the years due to missing values in the variable of interest;
- No clear trend is observable before 2017 in the treated nor in the control group, but
- In 2017 the treated group experiences a sharp increase in new hirings, while the control group does not

	2018		2010-2015-2018	
	OLS	OLS	FE	DiD-FE
Hire incent (HI)	0,053*** [0.004]	0,054*** [0.010]	0,054*** [0.009]	
Hire incent* year 2014				0.006 [0.011]
Hire incent* year 2017				0.058*** [0.012]
Year 2014		-0.008* [0.005]	-0.016*** [0.004]	-0.017*** [0.005]
Other controls	Yes	Yes	Yes	Yes
Constant	0.222*** [0.021]	0.120*** [0.032]	-0.024 [0.067]	-0.005 [0.067]
N. of Obs. N. of groups	13,025	6,055	6,055 2,521	6,055 2,521
R2	0.21	0.204	0.034	0.033

- Previous results reflect the average of what happens in the Italian economic system, but they can hide important differences due to the heterogeneity of firms, and
 - Since the sector differences identified in the effectiveness of incentives in generating employment opportunities
 - Previous regressions run for industry and services sectors
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- The highest advantage, measured in terms of the increase of the share of new hirings, is obtained within the **industry sector**: in the short-run the share of new hirings raises of about **6.5%** whereas the growth within the **services sector is about 4%**

	Whole sample		Industry		Service	
	2018	2010-2015-2018	2018	2010-2015-2018	2018	2010-2015-2018
Counterfactual	0.041*** [0.007]	0.056*** [0.017]	0.047*** [0.008]	0.080*** [0.021]	0.031*** [0.011]	0.017 [0.027]
Year 2014		-0.015** [0.007]		-0.012 [0.008]		-0.017 [0.012]
Year 2017		0.020*** [0.006]		0.020*** [0.006]		0.022** [0.01]
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.218*** [0.022]	0.107*** [0.035]	0.191*** [0.025]	0.072** [0.036]	0.210*** [0.037]	0.184*** [0.066]
N of Obs	12,951	4,900	7,257	3,012	5,694	1,888
R2	0.205	0.201	0.097	0.112	0.249	0.252

For all the specifications results are stable and conclusions do not change: the **adoption of incentive positively affect the amount of newly hires** even if the size of the increase is slightly lower with respect to the one detected by the first table

Conclusions

- An evaluation analysis of the ALMPs is performed and, in particular, of the hiring incentives for the Italian productive system
- Thanks to a unique source of firm-level information, we have found that the introduction of hiring incentives in 2017 caused a significant increase of the share of newly hired workers, especially for those firms operating in the industrial sector.
- This analysis provides the more updated evidence of the effectiveness of employment incentives on firms' hiring decisions in the short run
- However, analysis does not allow us to infer any result about the long run impact of hiring incentives on employment evolution and on productivity growth.
- **Future research:** to perform the same analysis using administrative dataset (*Comunicazioni Obbligatorie – Ministero del Lavoro*) and focusing on a specific programme (Youth Guarantee)

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