More Stable and Better Paid? The Effect of Hiring Subsidies on Wages[1]

Effrosyni Adamopoulou[2] Eliana Viviano[3]

Bank of Italy

VISITINPS PROJECT

Preliminary, please do not circulate June 2017

Extended abstract. The Great Recession in Italy led to a significant number of job losses (around 1 million between 2008 and 2014), especially among fixed-term workers due to the duality that characterizes the Italian labour market. Aimed at reducing duality and stimulating job creation at the beginning of 2015 the Italian government implemented a hiring subsidy in the form of tax rebates for new permanent contracts of workers previously not employed or employed with fixed-term contract. The main eligibility condition for the incentive was that the worker did not work on an open-end basis (permanent contract) in the 6 months preceding the hiring. The hiring subsidy applied to new hires/conversions that took place in 2015 and consisted of tax rebates of up to 8,060 euros per year for a duration of three years after the hiring/conversion. Sestito and Viviano (2015) using administrative data of the so-called Sistema delle Comunicazioni Obbligatorie for the Veneto region show that the policy had a sizable, positive impact on total net job creation. In this paper we study the effects of the policy on wages using administrative data that cover the universe of private employees in Italy.

From a theoretical point of view, hiring subsidies in a standard search and matching model lead to increases in wages (Mortensen and Pissarides, 2001). However, the effect of hiring subsidies on wages in a dual labor market like the Italian one is less

[1] The views expressed in this paper are the ones of the authors and do not necessarily reflect those of the Bank of Italy.

[2] Bank of Italy, Directorate General for Economics, Statistics and Research, Structural Economic Analysis Directorate, Economic Structure and Labour Market Division, Via Nazionale 91, 00184, Rome, ITALY. Tel. +390647922594. Email: Effrosyni.Adamopoulou@bancaditalia.it

[3] Bank of Italy, Directorate General for Economics, Statistics and Research, Structural Economic Analysis Directorate, Economic Structure and Labour Market Division, Via Nazionale 91, 00184, Rome, ITALY. Tel. +390647923040. Email: Eliana.Viviano@bancaditalia.it

straightforward. On the one hand, the hiring subsidy for new permanent workers may result in decreases in wages as workers may trade-off higher job stability for lower earnings. On the other hand, eligibility rules may result in wage increases as eligible workers have more bargaining power when negotiating with current and prospective employers. As a result, workers with similar characteristics may earn different wages depending on their eligibility status. Therefore, which of the two above-cited effects is going to prevail becomes an empirical question. Moreover, the business cycle may also play a role as the bargaining power of eligible workers may be more limited in bad times when the pool of the unemployed is larger.

This is not the first time that hiring subisidies in the form of tax rebates for new permanent workers are implemented in Italy. However, previous such policies were conditional (i.e., they required the increase in the firm's overall level of permanent employment) and targeted at specific group of workers (e.g. the young). The 2015 policy did not have such a requirement. Cipollone and Guelfi (2003) and Cipollone, Di Maria and Guelfi (2005) analyze the effect of a tax-rebate policy in Italy for newly-hired young, permanent workers that was implemented in 2001. They mainly focus on employment effects and find that tax rebates increase labour force participation, but not the overall probability of being hired. According to their findings, firms used the subsidy to hire workers that would have hired even in absence of the policy. Ciani and De Blasio (2015) study a short-run policy intervention for the conversion of fixed-term contracts into permanent ones that targeted at young and females and find a positive effect on conversion rates. In this paper we focus on an unconditional, untargeted hiring subsidy and we extend the analysis beyond employment. In particular, our main focus is the effect on wages.

More recently, Cahuc, Carcillo and Le Barbanchon (2014) evaluate the effects of unconditional hiring subsidies in France. Cahuc et al. (2014) study the effects on employment and wages of an unexpected temporary hiring credit in France. The authors use administrative data and a diff-in-diff strategy exploiting the eligilibility rules (the policy targeted at low-paid workers below a certain threshold in firms with less than 10 employees) and find a positive effect on employment. However, they find

no statistically significant effect on wages. This is pressumably due to the institutional setting in France where minimum wages are usually binding for small firms.

The data we use in the analysis bring together very rich information from different administrative sources (INPS) and became available through the program VisitInps. First, we use information on the universe of dependent workers in the private sector with details on daily wages, the type of contract (permanent or fixed-term) and its timing (date of hiring/firing/conversion of contract) that allow us to observe the entire work histories of the employees at a monthly basis for the period 2012-2015. Second, we use information on the universe of private sector firms with at least one employee that allow us to create a linked employer-employee dataset and to account for firm specific characteristics. We identify workers who were eligible for the subsidy or not using their work history.

We evaluate the effect of the policy on wages using a simple diff-in-diff framework, comparing eligible and non eligible workers before and after the implementation of the policy. Since the policy increased also the probability of finding a job, we restrict the sample to workers who had at least one employment episode in 2014, i.e. they were already working before the policy took place.[4] The benchmark specification is

$$w_{iht} = \alpha + \beta post_t + \gamma eligibility_h + \delta eligibility_h * post_t + time_t + \eta_i + \varepsilon_{iht}, \qquad (1)$$

where w_{iht} stands for the daily wage of an individual i with work history h at time (month and year) t. Wages take the value 0 for those who are not employed. The dummy $post_t$ takes the value 1 in 2015, when the policy got implemented, and 0 in 2012 and 2013. The dummy $eligibility_h$ depends on the work history of the individual and takes the value 1 for those who were not working on an open-end basis in the previous six months. We include time and individual fixed effects. We also add monthly dummies to control for seasonality.

Preliminary results based on a 6.5% random sample of the workers suggest that the effect of the policy on wages (δ) is negative and statistically significant. This

[4] In order to avoid any anticipation effects of the policy we do not consider those who were working in the last two months of 2014, i.e. after the announcement of the policy.

is true also when we include firm fixed effects, firm-worker fixed effects or when we include as a regressor the average wage paid by the firm. Given that at the time of the implementation of the policy Italy was still recovering from the Great Recession it is perhaps no suprise that individuals traded-off wages for stability. It seems that, in the presence of a large pool of unemployed individuals, satisfying the eligibility requirement was not enough so as to increase the bargaining power of the prospective workers.

In order to account for the business cycle we use the Labor Force Survey to compute the annual unemployment rate at the province of the activity of the firm. The effect on wages remains negative and statistically significant even after including the provincial unemployment rates.

We ensure the validity of our diff-in-diff exercise by testing for pre-existing trends between the treated and the control group and we cannot reject the hypothesis that pre-trends are parallel.

Lastly we examine whether the effect of the policy on wages is heterogeneous according to specific features of the worker or of the firm. In particular, we identify workers that had previously worked within the same firm and we augment the interactions in (1) with the dummy "known". We find that the effect on wages in always negative but less so if the worker had previously worked in the firm.

Given that in Italy the Employment protection legislation (EPL) is different for firms with more than 15 employees we also augment (1) with interactions with the dummy "below 15". We find that the effect on wages is less negative in firms with less than 15 employees were firing is less costly.

References

[1] Boeri, T., and P. Garibaldi (2007). "Two Tier Reforms of Employment Protection: A Honeymoon Effect?", *Economic Journal*, Vol. 117, F357-F385.

[2] Cahuc, P., S. Carcillo, and T. Le Barbanchon (2014). "Do Hiring Credits Work in Recessions?", *IZA discussion paper No. 8330.*

[3] Cappellari, L, C. Dell'Aringa, and M. Leonardi (2012). "Temporary Employment, Job Flows and Productivity: A Tale of Two Reforms", *Economic Journal*, Vol. 122, F188-F215.

[4] Ciani, E. and G. De Blasio (2015). "Getting Stable: An Evaluation of the Incentives for Permanent Contracts in Italy", *IZA Journal of European Labor Studies*, Vol. 4, 1-29.

[5] Cipollone, P. and A. Guelfi (2003). "Tax Credit Policy and Firm's Behaviour: The Case of Subsidies to Open-End Labour Contracts in Italy", *Temi di discussione (Economic Working Papers) No. 471*, Bank of Italy.

[6] Cipollone, P., Di Maria, C. and A. Guelfi (2005). "Hiring Incentives and Labour Force Participation in Italy", *Temi di discussione (Economic Working Papers) No. 552*, Bank of Italy.

[7] Mortensen, D. and C. Pissarides (2001). "Taxes, Subsidies and Equilibrium Labour Market Outcomes", *CEPR discussion paper No. 2989.*

[8] Sestito, P. and E. Viviano (2015). "Hiring Incentives and/or Firing Cost Reduction? Evaluating the Impact of the 2015 Policies on the Italian Labour Market", *Questioni di Economia e Finanza (Occasional Papers)*, Bank of Italy, forthcoming.