

Does the unemployment trap still exist? The case of the Italian minimum income scheme

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Abstract

The question of whether welfare benefits imprison recipients in unemployment traps has been at the centre of academic and political debates in recent decades. Empirical evidence at the micro level supports the existence of work disincentive effects of welfare benefits, although of a small magnitude. However, the question of whether this translates into lower aggregate employment remains unsettled. This study innovates the existing literature by providing an estimation of the impact of the monetary component of the Italian minimum income scheme (MIS) on the employment rate. Isolating this impact from the spurious pro-work effects of the Active Labour Market Policies embedded in every contemporary MIS is possible because in the Italian case, in the first quarters of implementation of the policy, the activation side was not operating. We adopt a difference-in-differences method and find that the impact of the monetary component of the Italian MIS on the employment rate is not statistically significant. The finding is robust to different treatment definitions, different specification models and weighted and unweighted econometric analysis. We then carry out a heterogeneous analysis and find that the impact, despite being indistinguishable from zero *on average*, is significant and negative for provinces with weak labour demand.

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KEYWORDS

difference-in-differences, minimum income schemes, poverty, social assistance, unemployment traps, work disincentive

1 | INTRODUCTION

One of the traditional issues related to social assistance, and in particular to the minimum income scheme (MIS), is the possibility of work disincentive effects that may imprison recipients in ‘unemployment trap’ mechanisms (Lalive, 2007; Layard et al., 2005; Nickell, 1997; Terracol, 2009). The primary aim of these social transfers—to relieve poverty—might therefore be undermined in the long run by side effects of protecting the income of the poor. This, in turn, could increase the problems of welfare dependency and the financial sustainability of social assistance, together with other macroeconomic side effects related to growth in the unemployment rate.

At the empirical level micro studies have shown that work disincentive effects exist (e.g., Card et al., 2015; Lalive, 2007; Meyer, 1990; Terracol, 2009; Van Ours & Vodopivec, 2006) although they are generally of small magnitude and sometimes the evidence is limited to specific demographic segments (Bargain & Doorley, 2011; Lemieux & Milligan, 2008). However, do they translate into a reduction in employment at the aggregate level?

This, as Atkinson and Micklewright (1991) note, is not obvious since welfare recipients not accepting jobs may lead to the work being offered to others. In this case, rather than a reduction in aggregate employment we should observe a change in its composition. Evidence at the macro level generally indicates a positive correlation between welfare generosity and unemployment rates (e.g., Layard et al., 2005; Nickell, 1997). However, most studies neglect endogeneity issues (Howell & Rehm, 2009). The few studies which address the issue present mixed results. While Elmeskov et al. (1998) and Howell et al. (2007) suggest that causality runs from high employment to high welfare generosity through bottom-up political pressure on the government, Bassanini and Duval (2009) find the opposite.

This study innovates the existing literature on the aggregate effects of MISs on employment as it adopts a much more compelling identification strategy. We use a difference-in-differences (DID) method and compare the employment rate in Italian provinces with many and few MIS beneficiaries before and after policy implementation. We study the case of Italy, the last European country to introduce a MIS. The Italian case is particularly interesting because it allows the impact of work disincentive effects at the aggregate level to be isolated.

In recent decades, governments have introduced conditionalities and activation mechanisms in MISs to cope with work disincentive effects. Welfare recipients are required to search for jobs and cannot reject suitable job offers. Moreover, beneficiaries are invited to participate in labour market (re)integration schemes run by employment centres. Activation mechanisms and conditionalities and their pro-work effects have made it difficult to empirically disentangle the work disincentive effects of the passive monetary component of contemporary MISs. In this respect, the Italian case provides a useful exception. Conditionalities are much less relevant in the context of a depressed labour market like the Italian one at the time the policy was introduced. The intuition is that recipients did not care about the requirement to accept suitable job offers if they did not receive any offer at all, which is not uncommon for beneficiaries of MISs. Indeed, most of them are characterised by low levels of employability (ANPAL, 2020). As for active labour market policies (ALMPs), they were not operating in the first months of implementation of the policy when recipients started to receive their benefits. Only later were employment centres provided with the human resources necessary for the ALMP to work effectively. Therefore, by focusing on the first three quarters of MIS implementation we can test the impact of work disincentive effects at the macro level and disentangle them from the pro-work effects of activation mechanisms and conditionalities.

The Italian case may therefore represent a unique opportunity to analyse the potential ‘unemployment trap’ of MISs in today’s labour markets without the spurious ‘activation effect’ of the new generation of European MISs

characterised by attempts to integrate the recipients in the labour market by means of conditioning measures (Kazepov, 2010; Weishaupt, 2012).

Our research question is therefore as follows. Does the 'passive' monetary component of contemporary MISs trap recipients in unemployment, leading to a reduction in the employment rate? Answering this question may represent not only an attempt at a novel theoretical contribution to the unemployment trap but also an actual contribution at the policy level since, especially in Italy, this topic is very much discussed by political forces.

The paper is structured as follows. Section 2 provides a review of the literature on the relationship between MISs and unemployment trap, first focusing briefly on the mechanism of the 'disincentive effect' provided by social assistance and then analysing how the evolution of the MISs over time in Europe impacted this mechanism. Section 3 discusses the case of Italy. Section 4 develops the main thesis of the paper and provides a description of both the methods and data adopted. Section 5 gives the results of the empirical analyses and Section 6 concludes.

2 | LITERATURE REVIEW

2.1 | The unemployment trap and its critiques

One of the arguments put forward by critics of social assistance provisions is that MISs generate work disincentive effects, which are supposed to imprison beneficiaries in unemployment and poverty traps, thus feeding welfare dependency and questioning sustainability (e.g., Dean & Taylor-Gooby, 1992; Katz, 1989; Layard et al., 2005; Moffitt, 1992; Terracol, 2009).

This view is based on traditional rational agent theory. According to this theory, people allocate their time between work and leisure, and the only reason for working is money, which is used for consumption (Nicholson & Needels, 2006). Welfare benefits providing recipients with a minimum income (reservation income) allow consumption without working and, given the assumed preference for leisure, cause a reduction in employment.

This theory has many shortcomings and raises many issues. First, as many scholars have shown, reasons for working are manifold and cannot be limited to monetary incentives. Most workers seem to get significant utility from employment and disutility from unemployment, independently of income (Howell & Rehm, 2009). People find in employment self-esteem, identity and a place in society (Blanchflower & Oswald, 2004; Clark, 2003; Di Tella & MacCulloch, 2002; Shields & Wheatley Price, 2005). Second, people are aware that long unemployment spells have scarring effects and reduce employability in the future (Arulampalam et al., 2001). This awareness is highly relevant if welfare benefits are limited in time. Third, people are often willing to accept poorly paid jobs relative to welfare benefits in the hope of getting better pay in the future (Gebauer & Vobruba, 2003). Finally, the theory cannot explain why some people work even if they could get more on social assistance and why they exit welfare programmes to enter the labour market even if the employment wage is lower than welfare benefits (D'Addio et al., 2003).

In contrast to the 'disincentive effect' theory, other scholars have argued that social assistance might work as a buffer during unemployment spells and serve as a job-search subsidy (Biegert, 2017; Gangl, 2006; Pollmann-Schult & Büchel, 2005; Schmieder & von Waechter, 2016). Welfare support allows beneficiaries to refuse bad jobs and enables further education and training (Estevez-Abe et al., 2001). This should eventually lead to better job matches in the long run and enhanced productivity, wages and economic growth. Better matches should also decrease future separations and therefore decrease the long-run unemployment rate (Nelson & Stephens, 2012).

2.2 | MISs evolution and the disincentive effect to work

The presumed disincentive effect of social assistance has been part of the debate around MISs since the Beveridge Report, in which Beveridge expressly mentioned the 'disincentive effect,' saying that 'the State in organising security

should not stifle incentive, opportunity, responsibility; in establishing a national minimum, it should leave room and encouragement for voluntary action by each individual to provide more than that minimum for himself and his family' (Beveridge, 1942).

Also, for this reason, the Beveridge reform plan would not have left enough room for social assistance but instead a residual role, given that social insurance was the main pillar of the welfare state together with healthcare. Nevertheless, in 1948 the Atlee Government adopted National Assistance, the first European MIS devoted to all the poor and conditioned on a means-test assessment: for the first time a modern welfare state devoted a specific fiscal measure—namely social assistance—to fighting poverty without any work requirements.

In the following decades, the pathbreaking British example was replicated in other countries and similar measures spread all over Europe. It is possible to identify three different 'waves', or 'generations', in the evolution of European MISs (Busilacchi, 2013; Kazepov, 2010) that might represent a change in the relationships between MISs policy design and their 'disincentive effects'. The first 'wave' from the 50s to the 70s basically followed the Beveridgean MIS. It involved countries that wanted to introduce a last resort safety net as a basic social assistance pillar of the welfare state, such as Sweden in 1956 and Germany in 1961. In these first cases, the MISs did not represent key policies in the social protection systems but were mainly intended to prevent extreme marginality. Their low generosity and scope did not create any 'unemployment trap' issue.

A second wave of MISs corresponds to the economic crisis of the 70s. For the first time in 30 years, Europe was experiencing wide and common increases in unemployment and poverty, and this required new public intervention. Several countries that were without MISs at that time introduced new measures to face the problem and those that already had MISs reinforced them (Ayala, 2000). In these cases, the MISs were mainly seen as 'buffers' to cope with unemployment spells and therefore again did not present a big issue in terms of trapping the recipients, who were keen to get back into the labour market.

Finally, in the late 80s, a new scenario arose. There was an increase in new forms of vulnerability, precariousness and social exclusion, and a parallel academic debate that emerged, mainly in France (Castel, 1995; Paugam, 1991), argued for a new 'wave' of MISs. The basic difference from the previous 'passive' MISs, in which poor recipients just received a social transfer, was the activation of recipients towards inclusion and employment. The pathbreaker was the French *Revenu Minimum d'Insertion* (RMI, 1989), which was later followed in other countries. In 1992, the EU Council in its 441/92 Recommendation called on the latecomer countries to provide themselves with MISs to prevent poverty. Portugal and Spain followed the indication¹ by establishing for the first time a MIS based on the French model, while other countries which already had MISs in place changed their policy towards the activation principle.

From the empirical analysis conducted in OECD countries on MISs recipients emerged that a kind of 'welfare trap' exists, meaning a 'degree of genuine state dependence' on social assistance only for a small percentage of recipients (Immerovoll et al., 2015). This seems to confirm previous results that indicate that some groups of MIS beneficiaries are too vulnerable to be reintegrated into the labour market (Leisering & Leibfried, 1999; Saraceno, 2002). It is therefore possible to conclude that some groups of MISs recipients are non-respondent to any incentive-disincentive mechanism of social assistance that might lead to their activation in the labour market.

It is anyway important to underline that in the last decades the significant change towards the 'Social Investment Welfare State' (Hemerijck, 2017) and the 'activation principle' concerned both the role and the design of the MISs in all Europe. Under this perspective, on the one hand, the MISs are now seen as 'buffer measures', with the role of guaranteeing a safety net for reasons of income protection and economic stabilisation (Hemerijck & Ronchi, 2023) and on the other hand the combination of active services with the provision of a minimum income represents the exit strategy from the social assistance dependency (Cantillon et al., 2008), under the assumption that passive benefits generate disincentives in accepting a work (Marx & Nelson, 2013).

This twofold role of MISs refers indeed to the two different interpretations of the concept of activation—'demanding and enabling' (Marchal & Van Mechelen, 2017)—the first one being more incentive-sanction oriented, with the goal of ending the benefit dependency and of incentivising the labour market participation, and the second one being based on human capital formation for enabling individual capabilities. From recent empirical analysis, it has

been noticed that only a combination of different active policies can create the right incentive to work for social assistance recipients (Marchal & Marx, 2018).

The change in the MIS policy design also had an impact at the theoretical level regarding the aim of this paper: the basic assumption behind the unemployment trap related to social assistance is that MISs are 'passive' mechanisms through which poor recipients receive a social transfer to increase their income. Under this assumption, the work disincentive hypothesis may work because of an increase in the recipient's reserve salary. However, this behaviour should end if the social transfer is subject to active measures and conditionalities (such as the impossibility of refusing a job offer).

Even though all the current European MISs are active, and this has been the case for at least a decade now, the literature has not paid enough attention to this shift in the aims and instruments of social assistance. Therefore, the question of whether the unemployment trap related to MISs still exists is of high relevance, and even more since recent literature has shown a low consistency of this hypothesis (Biegert, 2017; Schmieder & von Waechter, 2016).

The Italian *reddito di cittadinanza* (RdC) is an excellent case study from this point of view. It was the last MIS to be introduced in Europe after a decade of debate on conditionality and activation in minimum income policies. In Italy, this discussion was so exacerbated that the aim of the RdC, as expressed in law 2/2019, was not only to 'fight poverty' but also to 'enhance employability as an ALMP.' Indeed, too many aims for a single policy measure. Even after its launch, the main issue regarding the RdC was not its efficiency in contrasting poverty but its efficiency in creating employability and therefore its risk of being an unemployment trap. This is not the traditional aim of MISs. Nevertheless, public attention was mainly devoted to it and assessment of the policy has been almost exclusively based on whether the measure encouraged or discouraged employment.

Therefore, we wish to make an empirically based contribution to the debate. Using data related to the first period of implementation of the RdC we are unable to assess the performance of the activation side of the policy, which was not yet operating. However, this gives us an opportunity to test, without the spurious effects of the ALMP, whether the mere provision of a cash benefit traps individuals in unemployment and leads to a reduction in the employment rate. Therefore, our estimation of the impact of the Italian MIS on the employment rate constitutes just a lower bound of the true impact of the policy. Indeed, the activation structure of the RdC should counterbalance the work disincentive effects of the provision of cash benefits, thus enhancing the overall labour market (re) integration performance of the measure.

3 | THE ITALIAN MIS CASE: THE SO-CALLED *REDDITO DI CITTADINANZA*

The RdC, which was introduced with DL 2/2019, marked a change in the history of Italian social assistance. In fact, together with Greece, which filled this gap in 2017 with its own MIS, Italy was one of the two European countries without a minimum income policy for all the poor. It is true that the RdC built on the experience of the '*Reddito di Inclusione*' (Rei, DL 147/2017), however, this measure had a much lower coverage and significantly lower benefits than the RdC. Originally, the Rei started as a targeted social support dedicated to just some specific categories of the poor and only in 2018 it was extended to all the poor. This is a typical feature of the Italian welfare state, which is characterised by several categorical measures. Because of the very political choices which have always driven social policies in Italy, the Italian welfare system has grown over the years without an organic vision (Ferrera, 1996). The main aim, rather than efficiently alleviating poverty in itself, has been to protect the income of specific categories of people (the elderly, the disabled, households with minors etc.). The consequence of this 'dispersion effect' is either ineffectiveness or a horizontal iniquity of social expenditure alleviating poverty.

Regarding ineffectiveness, despite high total expenditure on anti-poverty policies—more than €43 billion in 2017—in recent decades Italy has been one of the least effective European countries in reducing poverty risk through social policies. By looking at the gap between two Eurostat indicators—the population at risk of poverty before and after social transfers—it is possible to measure a proxy for this effect. In recent years, on average this

difference has amounted to almost 9% in Europe whereas it remains under 5% in Italy. Among the EU member states only Romania (4.7%) and Greece (3.8%) perform worse.

Regarding horizontal iniquity, some categories of the poor are over-protected by several specific social assistance measures while others are under-protected. The result is a high generational iniquity of Italian poverty. Looking at the last decade, for example, according to Eurostat, Italy was among the few countries where the number of people facing a risk of poverty increased. Only Greece and Luxembourg did worse (although the latter was starting from a very low rate). However, this worsening did not affect all categories of the poor equally. While the under 18s are the age category with the highest risk of poverty and with the largest increase in the last decade, the over 65s are the only category that has not experienced an increase in poverty in recent years. Their situation has improved relatively to other age classes, therefore generating marked horizontal iniquity among categories and generations (Busilacchi & Luppi, 2022).

Given the above, the introduction of a MIS for all the poor represented an important innovation in the Italian welfare state. The reasons for this path-dependence breakdown can be divided into two categories. On the one hand, the RdC followed a 'natural' evolution of Italian social assistance towards a universalistic MIS for all the poor, a history begun with the *Sostegno all'Inclusione Attiva* (SIA) and continued with the *Reddito di Inclusione* (REI), which prepared the ground for a change in the traditional structure of Italian social assistance (Jessoula & Natili, 2020). On the other hand, the final step was made possible by a top-down reform, that of RdC, which definitively broke the path-dependency of Italian policies against poverty. The historical resistance to universalistic MIS in any case conditioned the policy design of the RdC, which was presented as an anti-poverty measure and an ALMP at the same time, with strong influence of the workfare approach.

However, the target population of the scheme is characterised by a low proximity to the labour market. Analysing the data provided by ANPAL, the National Agency for the Active Labour Policies, only around 40% of the RdC beneficiaries are sent to the employment centres for the definition of an employment path. Of these, around 20% are working poor, people with an employment contract and a salary that does not allow them to make ends meet, 55% had an employment contract in the past but are now either unemployed or out of the labour force, while the remaining 25% never had a job. Of the beneficiaries with an employment contract in the past, around 60% did not work in the last 3 years and around 70% did not work in the last 2 years (Ministero del Lavoro e delle Politiche Sociali, 2020). Another informative measure of the proximity of the beneficiaries to the labour market is provided by the employment centres, which are required to assess the probability of employment of the beneficiaries that they receive: the average probability of employment in the next 12 months is just 12% (ANPAL, 2020).

Therefore, the attempt to contrast any form of unemployment trap was part of the RdC from its very initial political genesis. Activation of recipients into the job market was considered one of the main aims of the RdC from the beginning. For this reason, it would seem very interesting to analyse the Italian case as a good benchmark to find an answer to the question of whether the unemployment trap still exists.

4 | METHOD AND DATA

4.1 | Method: The difference-in-differences approach

Does the Italian MIS increase or decrease the employment rate? To answer this question, we exploit the geographical heterogeneity of the distribution of the beneficiaries of RdC. In some provinces, they are a relevant part of the total population while in others they are negligible. For instance, RdC recipients in Crotone are more than 12% of the population while in Bolzano the beneficiaries are just 0.17%. It seems reasonable to assume that the impact of the policy on the labour market is an increasing function of the percentage of RdC beneficiaries. If the policy has an effect on the provincial employment rate this effect should be stronger where the percentage of the population receiving the benefit is larger.

To assess the impact of the policy, we use a difference-in-differences (DID) method and compare the change in the employment rate after the introduction of the policy in provinces with many beneficiaries with that in provinces with few beneficiaries. This approach assumes that the employment trend in provinces with few beneficiaries constitutes a good counterfactual for what would have happened in provinces with many beneficiaries if they had had few. This assumes that the employment rate in provinces with many beneficiaries would have moved in a parallel way to that of provinces with few beneficiaries in the absence of the policy, a so-called common trend assumption. This is a strong assumption but there exist compelling reasons why it is likely to hold in our case.

First, we are not aware of any shocks that hit the Italian provinces in an asymmetrical way in the period under observation except the pandemic and a pension reform. To address the first threat, we deliberately limit the analysis to 2019, in order to exclude the possibility that an eventual asymmetrical impact of the Covid-19 outbreak could affect our results. It is more complicated to deal with the second issue since the timing of the pension reform overlapped with that of the RdC. The pension reform allowed workers with at least 38 years of contributions to retire at age 62, an option that was taken up by 150,000 people in 2019 according to the Italian National Institute for Social Security (INPS). The correlation between the percentage of new retirees with the reform calculated at the regional level (provincial data are not available) and that of RdC beneficiaries is -0.03 , a very low value that can hardly bias our results. However, to be particularly prudent we consider the employment rate in the age range 15–60. In this way, those who exited the labour market because of the pension reform do not enter into our calculation.²

Second, the employment rate fluctuates over time, declining during the winter quarter (January–March) and recovering in the rest of the year. This is probably due to the creation of seasonal jobs in the tourism sector. This pattern is stronger in the south of the country, where tourism is more seasonal. The strength of these fluctuations correlates with the distribution of RdC beneficiaries. Therefore, we control for region-specific seasonal fluctuations of employment in our analysis.

Last, it is possible that some provinces show different employment trends depending on their initial level of employment. Therefore, we control for this in our econometric analysis.

Besides these theoretical reasons supporting the common trend assumption, we run a ‘placebo test’. We test whether parallel trends existed before the introduction of the policy. If the employment rate in provinces with many beneficiaries was moving in parallel with that in provinces with few beneficiaries, then it seems reasonable to assume that it would have continued to do so if the policy had not been introduced. The result of the placebo test is shown in the ‘results and discussion’ section.

Another assumption required to employ a DID method is that the provincial percentage of beneficiaries is determined by time-invariant provincial characteristics and not by some idiosyncratic shocks which take place just before the introduction of the policy. Suppose that some provinces experience a temporary fall in the employment rate immediately before the introduction of the RdC. Suppose that because of this drop the percentage of beneficiaries is temporarily higher in these provinces. The shock is then absorbed, and the employment rate increases faster in these provinces. If this happens, it is not possible to distinguish this re-bouncing effect from the impact of the RdC. This is why we need to assume that the percentage of beneficiaries is independent of idiosyncratic shocks. There are good reasons to think that this assumption is justified.

First, to our knowledge, there were not any idiosyncratic shocks serious enough to have had a significant impact on the employment rate at the provincial level in the observation period. We are not referring to seasonal patterns, which it is possible to control for. Second, it is questionable whether a drop in employment immediately translates into an increase in the percentage of RdC beneficiaries. It must be noted that the stringent eligibility requirements for the RdC refer to the year before the year of application. This means that people who lose their jobs probably cannot satisfy the income requirements if they had a job in the previous year.

Regarding the interpretation of the results, we believe that what we are finding is a lower bound of the impact of RdC on the employment rate since the ALMPs embedded in the policy were not working during our period of observation. However, a possible threat to this interpretation regards the pre-existence of the Rei activation side. Indeed, Rei beneficiaries were offered both monetary benefits and inclusion policies, therefore there is the possibility

that our results on the RdC are affected by the spurious effect of the Rei inclusion policies. However, we must notice that the active side of the Rei focused also on measures to fight social marginality rather than on proper ALMP with a strong workfare approach. Therefore, given that our object of interest, the employment rate, measures specifically the extent of labour participation while the Rei tackled more social participation tout court, we believe that our analysis is sound to spurious Rei effects.

4.2 | Data

The units of analysis are the Italian provinces. We chose to analyse this territorial level because more detailed data are not available at lower levels. Selecting regional data instead would have meant reducing the sample to just 20 units, with consequent issues regarding large sample properties. Using provincial data allows an analysis of 107 units with a total of 856 observations (107 units in eight time periods).

Data on employment rates are derived from the Quarterly Labour Force Survey carried out by the Italian National Statistical Institute (ISTAT). The period observed covers eight quarters, from the first of 2018 to the last of 2019. The survey counts more than 141,000 individual respondents per quarter.

Data on the number of individual beneficiaries are taken from the *Osservatorio sul Reddito di Cittadinanza/Pensione di Cittadinanza* statistics of the Italian National Institute for Social Security (INPS). We choose a time-invariant independent variable, the percentage of individual beneficiaries in every province in August 2019, the first month after the introduction of the RdC for which data are available. Another possibility was the time-varying percentage of beneficiaries in every quarter and linking the number of beneficiaries in a quarter to the employment rate in the same quarter. However, this would not have taken into account the fact that there are some lags in the impact of RdC on the employment rate. We expect RdC to have an impact on the employment rate in the quarters following its introduction and our aim is to capture both immediate and lagged effects on the employment rate. Using a time-varying independent variable would not have allowed this kind of analysis. Nevertheless, the number of beneficiaries did not vary considerably in the first months of implementation and, more importantly for our research, the changes are common to all provinces.

Population data at the provincial level are retrieved from ISTAT for the year 2019. These data are used to derive the provincial percentage of individual beneficiaries.

In the heterogeneous analysis, we relax the assumption that the policy had the same impact in all the provinces, and we investigate whether there are some provincial characteristics which mediate the effect of RdC on the employment rate. We test provincial GDP per capita, the incidence of informal jobs, the number of firms for every 100 residents, the incidence of start-ups, the immigration balance, and per capita social security expenditure. The data on GDP per capita at the provincial level refer to 2017 and are derived from *Prometeia*. Data on the incidence of informal jobs are derived from the *Capire il Sommerso* (2003) survey carried out by CENSIS (Centre for Studies of Social Investments). Unfortunately, the estimates refer to 2000 but more recent information is not available. The number of firms and the incidence of start-ups are derived from *Infocamere* (2018), which measures the number of registered firms for every 100 residents and the number of innovative start-ups for every 1000 companies. Data on the migration balance are derived from ISTAT (2017) and consist of the difference between the number of residents that come from another municipality and the number of residents that move to another municipality. Data on per capita expenditure by municipalities on social security for minors, the disabled and the elderly are derived from *Istituto Tagliacarne* (2017).

Finally, we also investigate whether the impact of the policy is mediated by the provincial standard of living and the ease of doing business. For this purpose, we use two indexes (*quality of life* and *business & jobs*) built by *Il Sole 24 Ore* (2018), an Italian economics newspaper which every year produces a ranking of the Italian provinces according to their socio-economic performance. *Business & jobs* measures the ease of doing business and considers innovation, equal opportunities and economic competitiveness, while *quality of life* is a ranking based on 90 factors.

5 | RESULTS AND DISCUSSION

The final dataset is a balanced panel. We have observations for all the Italian provinces in all the time periods included in the analysis. When dealing with panel data it is possible to distinguish the unobservable component e_{it} in a time-invariant effect f_i and a time-varying idiosyncratic shock u_{it} .

We assume strict exogeneity. The idiosyncratic component of the error term is not correlated with the regressors X_i , that is, provincial employment shocks are randomly distributed. Since there are no theoretical reasons why shocks should be correlated with the distribution of RdC beneficiaries, we consider that the assumption is reasonable. To deal with the endogeneity of the time-invariant error term we use provincial fixed effects.

5.1 | Basic difference-in-differences

The basic regression equation is:

$$EmploymentRate_{p,t} = \alpha + \sum_{p=2}^N \beta_p province_p + \delta post_t + \theta treatment_p * post_t + u_{p,t},$$

where $EmploymentRate_{p,t}$ is the employment rate in province p at time t ; α is a constant measuring the average employment rate before the treatment for the baseline province; N is the number of provinces; $\sum_{p=2}^N province_p$ is the sum of all the provincial dummies except the baseline, where β_p capture the difference between the average employment rate before the treatment in province p relative to the baseline province; $post$ is a dummy that takes value 1 for observations after the implementation of the policy, where δ measures how the employment rate changes after the treatment for an untreated province; $treatment_p$ is the percentage of RdC beneficiaries. θ is the parameter of interest and measures the impact of the policy by capturing how much the employment rate changes after its implementation depending on the percentage of beneficiaries. $u_{p,t}$ measures the time-varying component of the error term.

In a second specification, we add regional-specific seasonal fluctuations in employment to the basic equation, and in a third specification we also add different provincial employment trends proxied by provincial employment at the beginning of the observation period.

In our main specification, we use OLS regressions because we believe that evidence from sparsely populated provinces is as important as evidence from more populous provinces. However, we also present the results from WLS regressions, where each observation is weighted for the provincial population, making changes in employment in more populous provinces count more than changes in sparsely populated provinces (Table 1).

The impact of the policy is indistinguishable from zero in all the specifications except the OLS regression with regional-specific seasonal fluctuations, in which we control for initial employment. However, the coefficient is only marginally significant.

We then run a series of robustness checks (the results are shown in the Appendix [Figures A1–A7 and Tables A1–A5]). First, we change the treatment definition. Instead of using a continuous independent variable, which imposes linearity in the impact of the policy, we use binary treatment definitions. We build three different treatment groups: the first includes provinces with an above average percentage of RdC beneficiaries, the second comprises provinces with a percentage of recipients above the median of the distribution, the third identifies provinces with a percentage of beneficiaries above the 75th percentile. Almost all the coefficients are statistically non-significant regardless of the specification used, the treatment definition and the weighting. In conclusion, the impact of the RdC on the employment rate seems to be indistinguishable from zero.

5.2 | Difference-in-differences with more time periods

Instead of just comparing the employment rate before and after the introduction of RdC, it is possible to refine the analysis by estimating the impact of the policy in every quarter. This type of analysis also allows us to test whether parallel trends existed before the policy was introduced. For reasons of brevity, we only present the results for the specification with a continuous treatment definition and with regional-specific seasonal trends. The results with different regression specifications (which are available on request) are similar and confirm our conclusions.

The equation below presents the regression model.

$$EmploymentRate_{p,t} = \alpha + \sum_{p=2}^N \beta_p province_p + \sum_{t=2}^8 \delta_t quarter_t + \sum_{t=2}^8 \theta_t treatment_p * quarter_t + \sigma winter_t + \sum_{r=2}^R \eta_r region_r * winter_t + u_{p,t}$$

where $quarter_t$ is a set of dummy variables in which every dummy refers to a specific quarter. The coefficients θ_t identify the impact of RdC in quarter t .

This type of analysis also allows us to carry out a placebo test. For all the quarters before the introduction of the RdC, the interaction term with the treatment should be equal to zero. In Figure 1, we present graphs showing the impact of the RdC over time. The thick line in the middle represents the point estimate of the effect of the treatment variable, while the other two lines show 95% confidence intervals.

First, we can confirm that before the policy was introduced the employment rate in provinces with many beneficiaries was moving in parallel with that in provinces with few beneficiaries regardless of weighting. Indeed, as the graphs show, the zero line is consistently within the confidence interval. After the implementation of the policy, provinces with more RdC beneficiaries experienced a reduction in the employment rate relative to provinces with few beneficiaries. This decline is statistically significant at the 5% level for the first quarter after the policy was introduced in the OLS regression. Under our assumptions, this constitutes evidence of a negative impact of RdC on employment. However, this finding does not prove to be robust. First, the significance disappears in the WLS regression. Second, we ran the same regressions with different treatment definitions (the results are shown in the Appendix [Figures A1–A7 and Tables A1–A5]) and in all of them parallel trends existed before the policy was introduced but the RdC has a significant impact on the employment rate in none of them.

Therefore, it is possible to conclude that the RdC did not have a significant impact on the employment rate. Indeed, in the quarters after its introduction, the employment rate continued to follow the previous trends.

TABLE 1 The impact of the Italian MIS on the employment rate.

Treatment variable: % of RdC beneficiaries						
	OLS regressions			WLS regressions		
treatment _{p,t} *post _t	+0.047 (0.064)	-0.090 (0.070)	-0.322* (0.168)	+0.049 (0.041)	-0.021 (0.048)	-0.128 (0.116)
R-squared	0.9672	0.9711	0.9712	0.9797	0.9819	0.9819
Controls						
Regional-specific seasonal fluctuations		x	x		x	x
Initial employment			x			x
Weighting				x	x	x

Note: Robust standard errors clustered at the provincial level in brackets. ***1% significance level, **5% significance level, *10% significance level.

5.3 | Heterogeneity analysis

The conclusion that the RdC did not have a significant impact on the employment rate holds on average. Nevertheless, the finding could hide different effects of the policy in different contexts. In order to understand what factors could mediate and influence the impact of the RdC on the labour market, a new regression model is employed with a triple interaction term between the treatment variable, the time dummy and possible mediating factors:

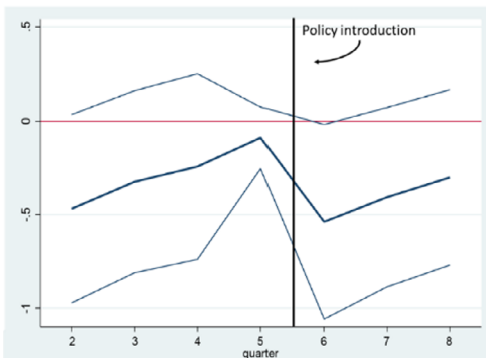
$$\text{EmploymentRate}_{p,t} = \alpha + \sum_{p=2}^N \beta_p \text{province}_p + \delta \text{post}_t + \theta_i \text{treatment}_p * \text{post}_t + \gamma_i \text{post}_t * \text{factor}_{i,p} + \delta_i \text{treatment}_p * \text{post}_t * \text{factor}_{i,p} + \sigma \text{winter}_t + \sum_{r=2}^R \eta_r \text{region}_r * \text{winter}_t + u_{p,t},$$

where $\text{factor}_{i,p}$ is the mediating factor i for province p . To simplify the analysis and the interpretation of the results, we dummified all the mediating factors. The factor variables take values equal to zero for values below average and equal to one for values above average. The coefficients of interest are θ_i and λ_i . θ_i captures the impact of the treatment in provinces that present below-average values of the mediating factor and λ_i identifies how different the impact of the programme is in provinces with above-average values of the mediating factor with respect to provinces with below-average values. The sum of θ_i and λ_i shows the impact of the policy in provinces with above-average values of the mediating factor.

We only present results from the model for the treatment definition as the percentage of RdC beneficiaries. We consider that using a continuous variable as the treatment in this part of the analysis can lead to a more accurate estimation. The fact that the mediating variables are dummified means that the impact of the policy is computed for two different groups of provinces. Since the independent variable and the mediating variables are correlated, using dummies for the treatment could lead to very few cases of treated or untreated provinces in each group. This would weaken the estimation of the impact of the policy. Adopting a continuous variable for the treatment, instead, should allow for more variation in the independent variable in each group.

We test different moderating factors. Figure 2 shows graphical representations of the results. We find that the impact of the RdC on the employment rate is mediated by provincial characteristics rather than being homogeneous. The policy has a statistically significant detrimental impact on employment in a specific group of provinces: those with below-average initial employment, GDP per capita, standards of living, incidences of innovative start-ups, net

OLS regression



WLS regression

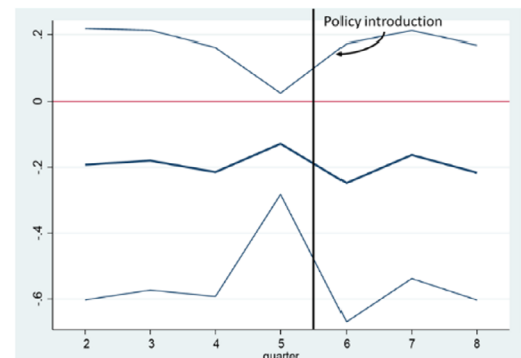


FIGURE 1 Effects of the RdC on the employment rate, 2018–2019 (95% confidence intervals). [Colour figure can be viewed at wileyonlinelibrary.com]

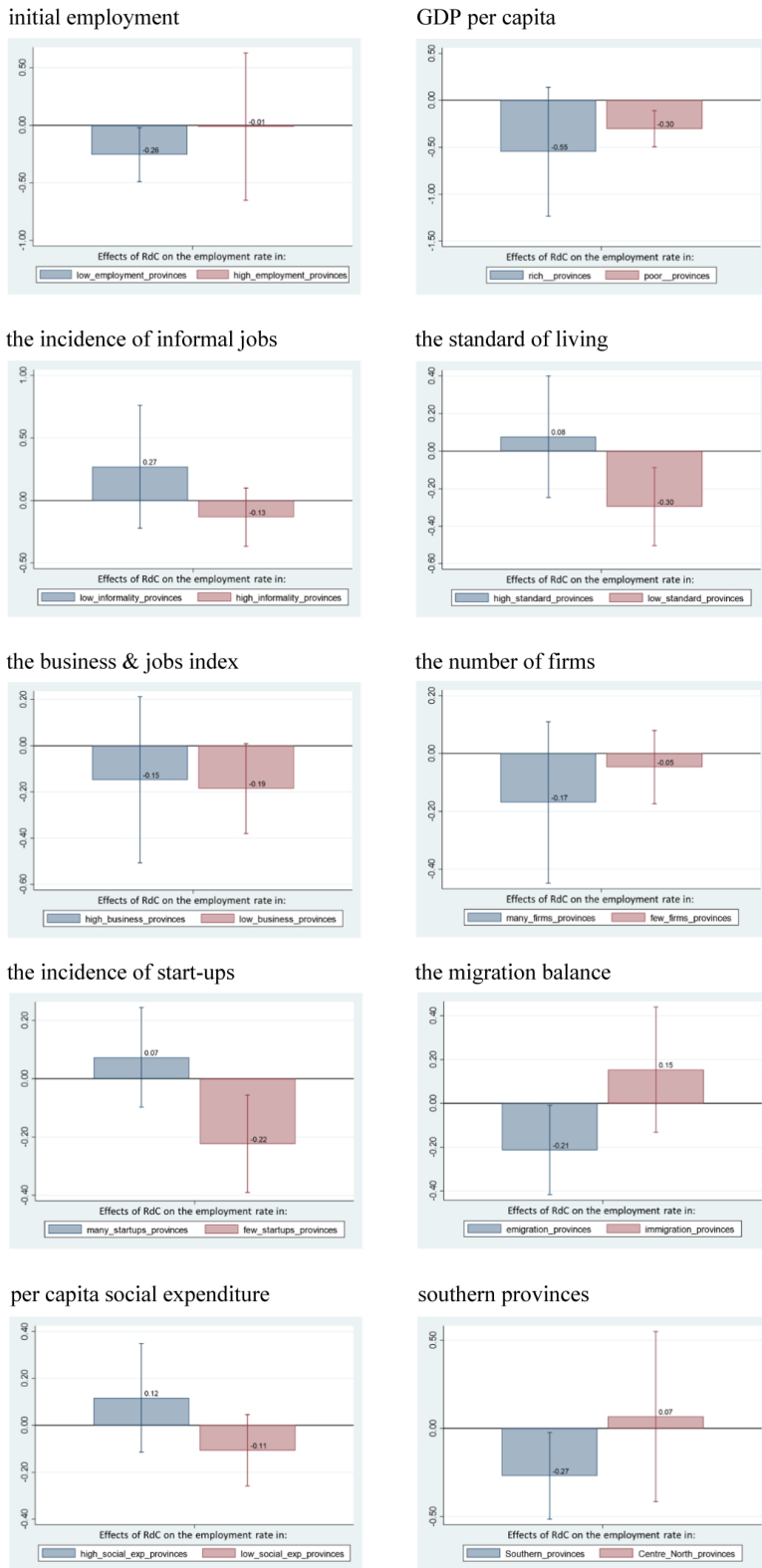


FIGURE 2 Effects of the RdC on the employment rate, 2018–2019 (95% confidence intervals). [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

emigration, and those located in the south of the country. The magnitude of the effects is relevant: a reduction in the employment rate of between 0.2 and 0.3 percentage points for every additional percentage point of RdC beneficiaries. For a province with an average percentage of RdC beneficiaries, this translates into an impact of between 0.7 and 1.0 percentage points. However, these estimates should be interpreted with caution because they are based on a continuous treatment definition that imposes that RdC has a linear impact on employment, whereas it could be that the policy is particularly detrimental where there are high percentages of beneficiaries. Indeed, provinces with lower employment, lower GDP per capita, a lower standard of living and less dynamic economies are very likely to have a higher percentage of beneficiaries. This means that some of the estimated effects could be due to the mere fact that they have many beneficiaries and that the detrimental effects of the RdC on the employment rate only arise where there are very high percentages of recipients.

Therefore, the policy has a statistically significant detrimental impact on the employment rate in provinces with specific characteristics: low economic development and weak labour market institutions. In these provinces, demand for labour is weak and there are few job opportunities. It could be that in this depressed economic environment, a MIS discourages beneficiaries from searching for a job, eventually leading to lower overall employment. If this is true, the policy is not detrimental to employment per se, but only when it is combined with a labour market offering few job opportunities.

These results show the importance of the demand side of the labour market when assessing the effects of welfare programmes. While previous studies have put the focus on the supply side effects of such measures, we believe that a more comprehensive view should be taken and the importance of demand side factors should be recognised.

The finding that the policy is only detrimental for provinces with fewer job opportunities poses a challenging political dilemma since these are the provinces that need a MIS the most to shelter people from poverty and social marginality. Future research should focus on the effectiveness of the activation mechanisms in the Italian MIS, with a special focus on this group of provinces. Indeed, ALMPs embodied in contemporary MISs can mitigate or even reverse this negative effect.

6 | CONCLUSIONS

The question of whether welfare benefits imprison recipients in unemployment traps has been at the centre of an academic and political debate in recent decades. Traditional rational agent theory predicts that people will not accept job offers if they are provided with generous enough welfare benefits. However, this theory relies on the unreasonable assumption that people do not consider the non-monetary incentives of employment. Empirical evidence at the micro level supports the existence of work disincentive effects of welfare benefits, although of small magnitude. However, the question of whether this translates into lower aggregate employment remains insufficiently addressed in the literature.

Since the beginning of the 1990s, to address potential work disincentive effects governments have reformed their social assistance programmes by embedding ALMPs, and all current MISs in Europe are 'active' income support measures.

This study has innovated the existing literature by providing an estimation of the impact of the monetary benefits component of the Italian MIS on the employment rate. Isolating this impact from the spurious pro-work effects of ALMPs was possible since in the Italian case in the first three quarters of implementation of the policy the activation side was not operating.

Adopting a difference-in-differences method, we have found that the impact of the monetary component of the Italian MIS on the employment rate was not statistically significant and we have not found sufficient evidence to support the argument that the policy has been detrimental to the labour market. Provinces with more beneficiaries do not show different employment trends to other provinces after the implementation of the policy. The finding is

robust to different definitions of 'provinces with more beneficiaries', different specification models and weighted and unweighted econometric analysis.

However, even though the impact has been found to be indistinguishable from zero *on average*, there is some evidence of a negative and significant impact of the policy on a particular group of provinces: those with weak demand for labour and weak economic and political institutions. It seems that where demand for labour is low and finding a job is harder, the Italian MIS has allowed beneficiaries to resign themselves to the idea of remaining unemployed, whereas some of them would have continued searching for a job in the absence of state welfare support and would have eventually managed to find one.

All these results lead to some conclusions in terms of policy implications. First, the policy design of actual MISs, which combines a monetary benefit with activation services, does not imply 'per se' an unemployment trap for all potential recipients. Second, the small-in-magnitude labour disincentive effects of the social assistance found by other studies for specific categories of recipients (Immervoll et al., 2015; Leisering & Leibfried, 1999; Saraceno, 2002) do not translate in reduction in the employment rate at the aggregate level. Third, there is a heterogeneous effect at the local level depending on the territorial labour demand. Further research can be done in this direction, especially trying to combine the heterogeneity of the labour disincentive effects of MISs on different categories of beneficiaries with the heterogeneity of the local labour markets. Understanding who gets disincentivised and in which context seems an important research question that deserves deeper investigation.

Finally, and very recently, Rdc has been cancelled by the Italian Government and will be replaced in the next months by two new measures: the Inclusion Allowance, a categorical MIS for households with disabled, minors or elderly, and the Support for Training and Employment, a temporary income benefit for people in active age, with the specific goal of encouraging labour market participation, rather than protecting the poor. Italy will be soon back to represent the only European country without a MIS for all the poor.

DATA AVAILABILITY STATEMENT

All dataset used are public and open access. The data that support the findings of this study are openly available at: <https://www.istat.it/en/archivio/127804>; <https://www.inps.it/it/it/dati-e-bilanci/osservatori-statistici-e-altre-statistiche/dati-cartacei-rdc.html>; http://dati.istat.it/Index.aspx?DataSetCode=DCIS_POPRES1; http://bancadati.italialavoro.it/bdds/download?fileName=C_21_Strumento_4200_documenti_itemName_0_documento.pdf&uid=57b7890d-31db-4b95-b179-c2274db5d00e; https://lab24.ilssole24ore.com/qdv2018/indexT.html?refresh_ce=1

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ENDNOTES

- ¹ Only Greece and Italy remained without a universalistic minimum income for all the poor until recently (2017 in Greece, 2018 in Italy).
- ² It could be argued that employers substitute retirees with new recruits. If this is true calculating the employment rate for people aged 15–60 does not solve the problem. However, since the rate at which employers substitute retirees with new workers is much lower than 1 because of the rigidity of the Italian labour market, our approach attenuates the issue considerably. Indeed, the substitution rate has been estimated at around 0.4 by the National Court of Auditors (Corte dei Conti, 2020).

REFERENCES

- ANPAL. (2020). Reddito di cittadinanza—nota n. 1-2020 (Collana Focus Anpal, n. 75).
- Arulampalam, W., Gregg, P., & Gregory, M. (2001). Introduction: Unemployment scarring. *The Economic Journal*, 111(475), F577–F584. <https://doi.org/10.1111/1468-0297.00663>
- Atkinson, A., & Micklewright, J. (1991). Unemployment compensation and labor market transitions: A critical review. *Journal of Economic Literature*, 29, 1697–1727.

- Ayala, L. (2000). *Las rentas minimas en la restructuración de los estados de bienestar*. Consejo Economico y Social de Espana.
- Bargain, O., & Doorley, K. (2011). Caught in the trap? Welfare's disincentive and the labor supply of single men. *Journal of Public Economics*, 95(2011), 1096–1110. <https://doi.org/10.1016/j.jpubeco.2011.05.007>
- Bassanini, A., & Duval, R. (2009). Unemployment, institutions, and reform complementarities: Re-assessing the aggregate evidence for OECD countries. *Oxford Review of Economic Policy*, 25(1), 40–59. <https://doi.org/10.1093/oxrep/grp004>
- Beveridge, W. (1942). *Social insurance and allied services (the Beveridge report)*. HMSO.
- Biegert, T. (2017). Welfare benefits and unemployment in affluent democracies: The moderating role of the institutional insider/outsider divide. *American Sociological Review*, 82(5), 1037–1064. <https://doi.org/10.1177/0003122417727095>
- Blanchflower, D., & Oswald, A. (2004). Well-being over time in Britain and the USA. *Journal of Public Economics*, 88, 1359–1386. [https://doi.org/10.1016/S0047-2727\(02\)00168-8](https://doi.org/10.1016/S0047-2727(02)00168-8)
- Busilacchi, G. (2013). Welfare e diritto al reddito. Le politiche di reddito minimo nell'Europa a 27. FrancoAngeli.
- Busilacchi, G., Luppi, M. (2022). When it rains, it pours. The effects of the Covid-19 outbreak on the risk of poverty in Italy. *Rassegna Italiana di Sociologia*, 2, pp. 11–34.
- Cantillon, B., Van Mechelen, N., & Schulte, B. (2008). Minimum income policies in old and new member states. In J. Alber, T. Fahey, & C. Saraceno (Eds.), *Handbook of quality of life in the enlarged European Union* (pp. 218–234). Routledge.
- Card, D., Johnston, A., Leung, P., Mas, A., & Pei, Z. (2015). The effect of unemployment benefits on the duration of unemployment insurance receipt: New evidence from a regression kink design in Missouri, 2003–2013. *American Economic Review*, 105(5), 126–130. <https://doi.org/10.1257/aer.p20151061>
- Castel, R. (1995). *Les métamorphoses de la question sociale*. Fayard.
- Clark, A. (2003). Unemployment as a social norm: Psychological evidence from panel data. *Journal of Labor Economics*, 21, 323–351. <https://doi.org/10.1086/345560>
- Corte dei Conti. (2020). Rapporto 2020 sul Cordinamento della Finanza Pubblica (p. 226).
- D'Addio, A. C., De Greef, I., & Rosholm, M. (2003). Assessing Unemployment Traps in Belgium Using Panel Data Sample Selection Models. IZA Discussion Papers, No. 669, Institute for the Study of Labour.
- Dean, H., & Taylor-Gooby, P. (1992). *Dependency culture: The explosion of a myth*. Harvester Wheatsheaf.
- Di Tella, R., & MacCulloch, R. J. (2002). The determination of unemployment benefits. *Journal of Labor Economics*, 20, 404–434. <https://doi.org/10.1086/338690>
- Elmeskov, J., Martin, J., & Scarpetta, S. (1998). Key lessons for labor market reforms: Evidence from OECD countries experience. *Swedish Economic Policy Review*, 5(2), 205–252.
- Estevez-Abe, M., Iversen, T., & Soskice, D. (2001). Social protection and the formation of skills: A reinterpretation of the welfare state. In P. A. Hall & S. D. Oxford (Eds.), *Varieties of capitalism: The institutional foundations of comparative advantage* (pp. 145–183). Oxford University Press.
- Ferrera, M. (1996). The 'Southern Model' of welfare in social Europe. *Journal of European Social Policy*, 6(1), 17–37. <https://doi.org/10.1177/095892879600600102>
- Gangl, M. (2006). Scar effects of unemployment: An assessment of institutional complementarities. *American Sociological Review*, 71(6), 986–1013. <https://doi.org/10.1177/000312240607100606>
- Gebauer, R., & Vobruba, G. (2003). The open unemployment trap: Life at the intersection of labour market and welfare state. The case of Germany. *Journal of Social Policy*, 32(4), 571–587.
- Hemerijck, A. (2017). *The uses of social investment*. Oxford University Press.
- Hemerijck, A., & Ronchi, S. (2023). Social investment recovery for a resilient eurozone. In A. Ciarini (Ed.), *Social investment and institutional change*. Routledge.
- Howell, D. R., Baker, D., Glyn, A., & Schmitt, J. (2007). Are protective labor market institutions at the root of unemployment? A critical review of the evidence. *Capitalism and Society*, 2(1), 1–71. <https://doi.org/10.2202/1932-0213.1022>
- Howell, D. R., & Rehm, M. (2009). Unemployment compensation and high European unemployment: A reassessment with new benefit indicators. *Oxford Review of Economic Policy*, 25(1), 60–93. <http://www.jstor.org/stable/23607057>
- Immervoll, H., Jenkins, S. P., & Königs, S. (2015). Are recipients of social assistance 'benefit dependent'? Concepts, Measurement and results for selected countries, IZA Discussion Paper 8786. Institute of Labor Economics (IZA).
- Jessoula, M., & Natili, M. (2020). Explaining Italian "exceptionalism" and its end: Minimum income from neglect to hyper-politicization. *Social Policy and Administration*, 54(4), 1–15.
- Katz, M. B. (1989). *The Undeserving Poor: From the war on poverty to the war on welfare*. PantheonBooks.
- Kazepov, Y. (2010). *Rescaling social policies: Towards multilevel governance in Europe*. European Centre Vienna.
- Lalive, R. (2007). Unemployment benefits, unemployment duration, and post-unemployment jobs: A regression discontinuity approach. *American Economic Review*, 97(2), 108–112. <https://doi.org/10.1257/aer.97.2.108>
- Layard, R., Nickell, S. J., & Jackman, R. (2005). *Unemployment: Macroeconomic performance and the labour market*. Oxford University Press.
- Leisering, L., & Leibfried, S. (1999). *Time and poverty in Western welfare states. United Germany in perspective*. Cambridge University Press.

- Lemieux, T., & Milligan, K. (2008). Incentive effects of social assistance: A regression discontinuity approach. *Journal of Econometrics*, 142, 807–828.
- Marchal, S., & Marx, I. (2018). Stemming the tide: What have European Union countries done to support low-wage workers in an era of downward wage pressures? *Journal of European Social Policy*, 28, 1–33.
- Marchal, S., & Van Mechelen, N. (2017). A new kid in town? Active inclusion elements in European minimum income schemes. *Social Policy & Administration*, 51(1), 171–194.
- Marx, I., & Nelson, K. (2013). *Minimum income protection in flux*. Palgrave Macmillan.
- Meyer, B. D. (1990). Unemployment insurance and unemployment spells. *Econometrica*, 58(4), 757–782. <https://doi.org/10.2307/2938349>
- Ministero del Lavoro e delle Politiche Sociali. (2020). Reddito di Cittadinanza rapporto annuale 2020 relativo all'anno 2019.
- Moffitt, R. (1992). Incentive effects of the U.S. welfare system: A review. *Journal of Economic Literature*, 30(1), 1–61. <http://www.jstor.org/stable/2727878>
- Nelson, M., & Stephens, J. D. (2012). *Do social investment policies produce more and better jobs? Towards a social investment welfare state? Ideas, policies and challenges* (pp. 205–234). Policy Press. <https://doi.org/10.1332/policypress/9781847429247.003.0008>
- Nicholson, W., & Needels, K. (2006). Unemployment insurance: Strengthening the relationship between theory and policy. *Journal of Economic Literature*, 20(3), 47–70. <https://doi.org/10.1257/jep.20.3.47>
- Nickell, S. (1997). Unemployment and labor market rigidities: Europe versus North America. *Journal of Economic Perspectives*, 11(3), 55–74. <https://www.jstor.org/stable/2138184>
- Paugam, S. (1991). *La disqualification sociale*. Essai sur une nouvelle pauvreté.
- Pollmann-Schult, M., & Büchel, F. (2005). Unemployment benefits, unemployment duration and subsequent job quality: Evidence from West Germany. *Acta Sociologica*, 48(1), 21–39. <https://doi.org/10.1177/0001699305050985>
- Saraceno, C. (2002). *Social assistance dynamics in Europe*. Policy Press.
- Schmieder, J. F., & von Waechter, T. (2016). The effects of unemployment insurance benefits: New evidence and interpretation. *Annual Review of Economics*, 8(1), 547–581. <https://doi.org/10.1146/annurev-economics-080614-115758>
- Shields, M. A., & Wheatley Price, S. (2005). Exploring the economic and social determinants of psychological well-being and perceived social support in England. *Journal of the Royal Statistical Society*, 168(3), 513–537. <https://doi.org/10.1111/j.1467-985X.2005.00361.x>
- Terracol, A. (2009). Guaranteed minimum income and unemployment duration in France. *Labour Economics*, 16(2009), 171–182. <https://doi.org/10.1016/j.labeco.2008.08.007>
- Van Ours, J. C., & Vodopivec, M. (2006). How shortening the potential duration of unemployment benefits affects the duration of unemployment: Evidence from a natural experiment. *Journal of Labour Economics*, 24(2), 351–378. <https://doi.org/10.1086/499976>
- Weishaupt, J. T. (2012). Origin and genesis of activation policies in 'old' Europe: Towards a balanced approach? In I. Marx & K. Nelson (Eds.), *Minimum income protection in flux* (pp. 190–216). Palgrave Macmillan.

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APPENDIX

RdC BENEFICIARIES: DESCRIPTIVE STATISTICS

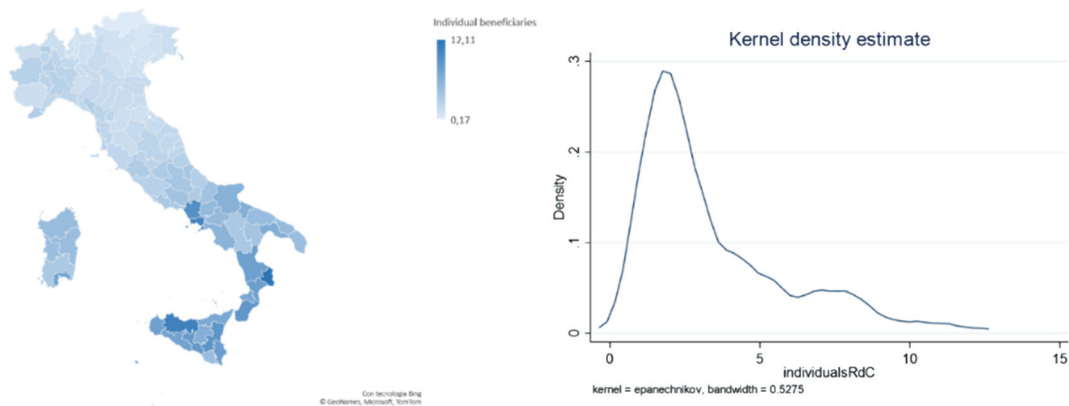


FIGURE A1 Geographical distribution of RdC beneficiaries (left) and distribution of provinces based on the % of RdC beneficiaries (right). [Colour figure can be viewed at wileyonlinelibrary.com]

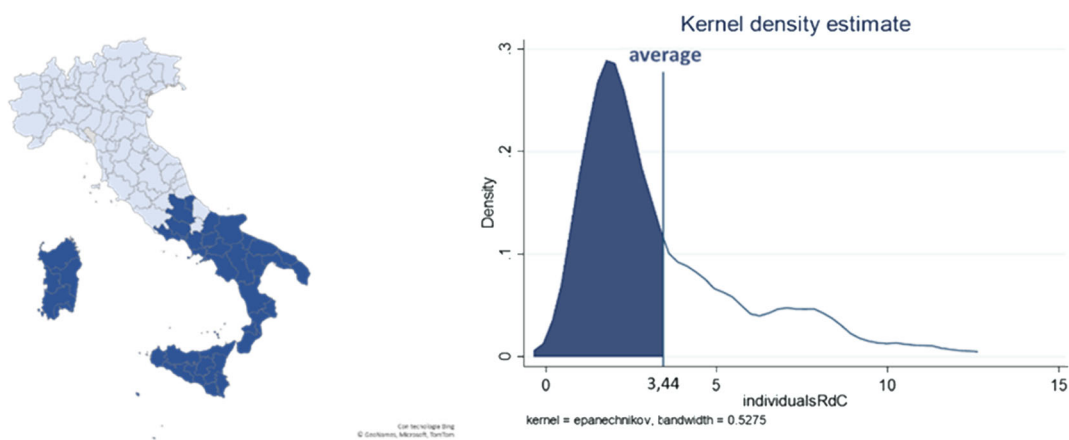


FIGURE A2 Provinces with above average % of RdC beneficiaries. [Colour figure can be viewed at wileyonlinelibrary.com]

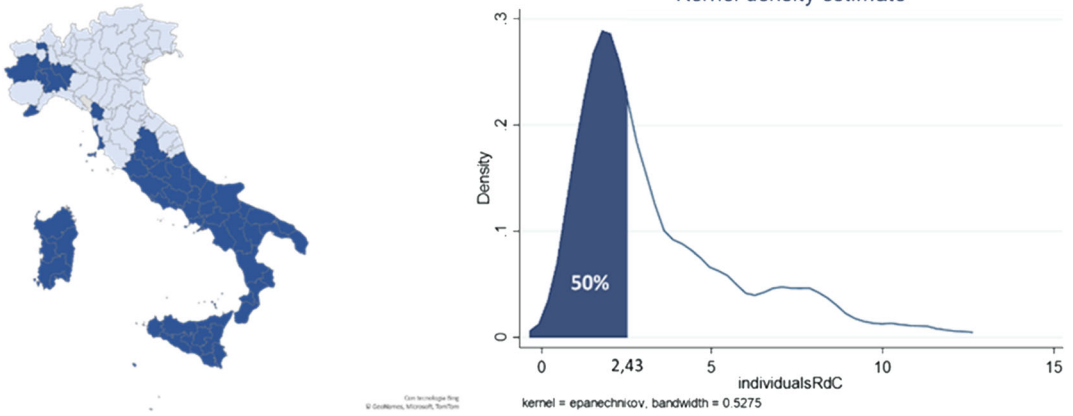


FIGURE A3 Provinces with above median % of RdC beneficiaries. [Colour figure can be viewed at wileyonlinelibrary.com]

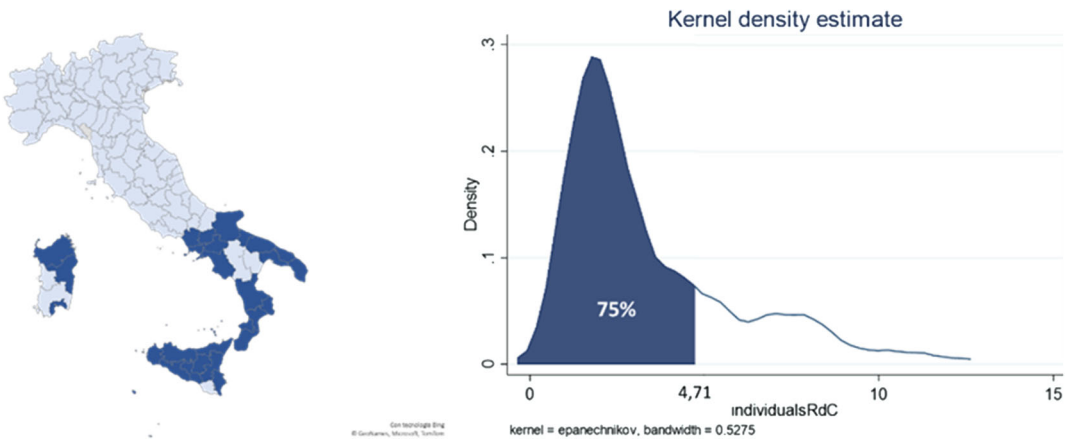


FIGURE A4 Provinces in the highest quartile of the proportion of RdC beneficiaries. [Colour figure can be viewed at wileyonlinelibrary.com]

TABLE A1 RdC beneficiaries—descriptive statistics.

Minimum	Maximum	Average	Standard deviation	Median	75th percentile
0.17%	12.11%	3.44%	2.50%	2.43%	4.71%

TABLE A2 Treatment definition.

	Above average % of beneficiaries	Above median % of beneficiaries	Top 25% provinces by % of beneficiaries
Average % of beneficiaries in the treatment group	6.29	5.21	7.13
Average % of beneficiaries in the control group	1.93	1.63	2.19

ROBUSTNESS CHECK

ROBUSTNESS CHECK WITH DIFFERENT DEFINITIONS OF TREATMENT, BASIC DID

TABLE A3 The impact of the Italian minimum income scheme on the employment rate.

Treatment variable: Provinces with above average % of RdC beneficiaries						
	OLS regressions			WLS regressions		
treatment _{p,t} *post _t	0.596*	-0.035	0.483	0.619**	0.147	0.944
	(0.346)	(0.365)	(0.803)	(0.292)	(0.300)	(0.724)
R-squared	0.9673	0.9710	0.9711	0.9798	0.9819	0.9819
<i>Controls</i>						
Regional-specific seasonal fluctuations		x	x		x	x
Initial employment			x			x
Weighting				x	x	x

Note: Robust standard errors clustered at the provincial level in brackets. ***1% significance level, **5% significance level, *10% significance level.

TABLE A4 The impact of the Italian minimum income scheme on the employment rate.

Treatment variable: Provinces with above median % of RdC beneficiaries						
	OLS regressions			WLS regressions		
treatment _{p,t} *post _t	0.547	0.069	0.442	0.378	-0.037	-0.078
	(0.341)	(0.347)	(0.569)	(0.301)	(0.314)	(0.491)
R-squared	0.9673	0.9710	0.9711	0.9797	0.9819	0.9819
<i>Controls</i>						
Regional-specific seasonal fluctuations		x	x		x	x
Initial employment			x			x
Weighting				x	x	x

Note: Robust standard errors clustered at the provincial level in brackets. ***1% significance level, **5% significance level, *10% significance level.

TABLE A5 The impact of the Italian minimum income scheme on the employment rate.

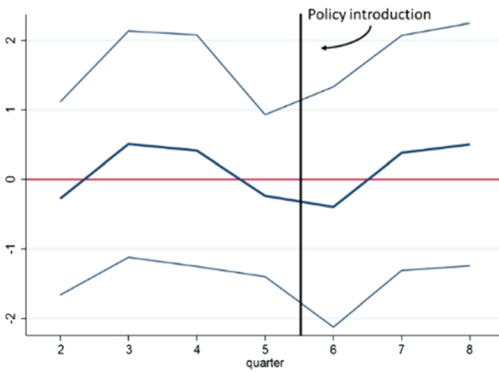
Treatment variable: Top 25% provinces by proportion of RdC beneficiaries						
	OLS regressions			WLS regressions		
treatment _{p,t} *post _t	+0.260 (0.367)	-0.459 (0.384)	-0.951 (0.708)	0.364 (0.297)	-0.139 (0.308)	-0.661 (0.618)
R-squared	0.9672	0.9711	0.9711	0.9797	0.9819	0.9819
<i>Controls</i>						
Regional-specific seasonal fluctuations		x	x		x	x
Initial employment			x			x
Weighting				x	x	x

Note: Robust standard errors clustered at the provincial level in brackets. ***1% significance level, **5% significance level, *10% significance level.

ROBUSTNESS CHECK WITH DIFFERENT DEFINITIONS OF TREATMENT, DID WITH MORE TIME PERIODS

Effects of RdC on the employment rate, 2018–2019 (95% confidence intervals).

OLS regression



WLS regression

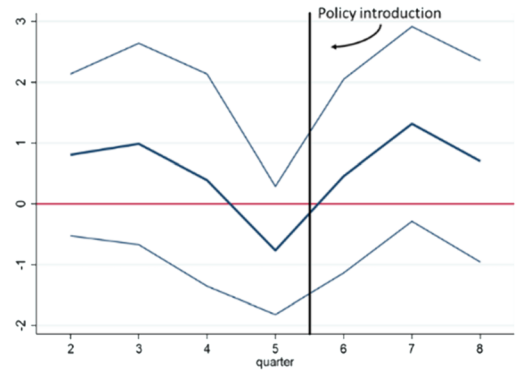
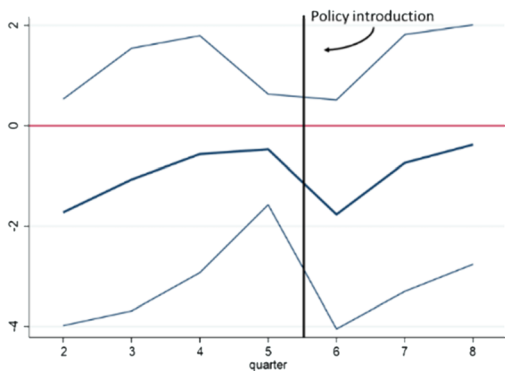


FIGURE A5 Treatment: above average % of RdC beneficiaries. [Colour figure can be viewed at wileyonlinelibrary.com]

OLS regression



WLS regression

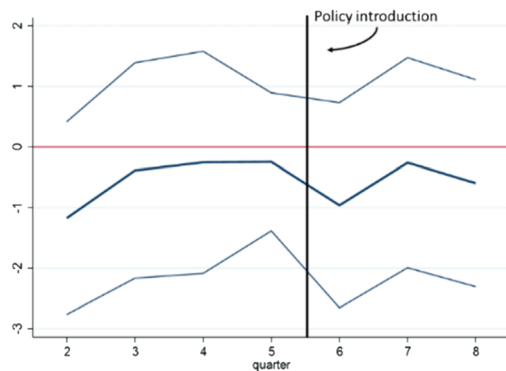
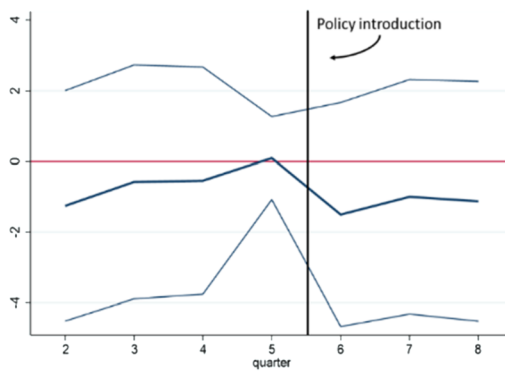


FIGURE A6 Treatment: above median % of RdC beneficiaries. [Colour figure can be viewed at wileyonlinelibrary.com]

OLS regression



WLS regression

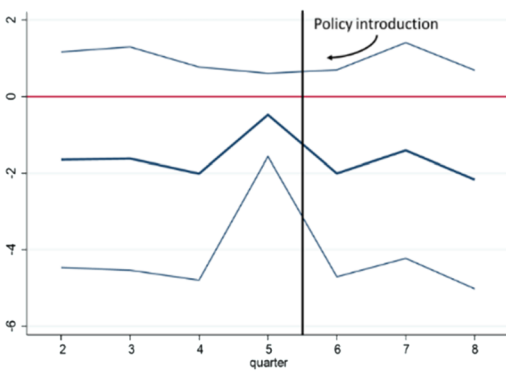


FIGURE A7 Treatment: provinces in the highest quartile of the proportion of RdC beneficiaries. [Colour figure can be viewed at wileyonlinelibrary.com]