Labour market reform and rent sharing: A quasi-experimental experience

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Abstract

In this paper, we analyse the impact on wages of the adoption of a rent-sharing remuneration scheme that aims to make labour institutions more flexible. We are working with a quasi-experimental setting referring to a sample of Italian companies before and after the introduction of the Treu Reform (1997). Our estimations confirm that this reform not only increased insider workers’ wages via rent sharing but also fuelled a two-pick convergence process of the elasticity between rent sharing at a different rate across the sectors. Our final discussion delivers a reasoned discussion of the consequences at large of the implementation of this reform on the Italian job market.

JEL Classification: C36, J30, J50

Keywords: rent sharing, convergence, IV estimation.

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1. Introduction

The practice of collective negotiation has been implemented to guarantee equal treatment of all workers and to limit wage discrimination across the sectors. Its major drawback is the creation of a system that leaves little room for the application of incentive mechanisms in remuneration schemes. Currently, high levels of unemployment rates (especially in Southern European countries) have again led to debates on the importance of providing more-flexible labour contracting schemes in order to foster productivity. One of the major obstacles in implementing these new, flexible contractual forms is the potential dispersion in remuneration schemes that could arise inside workers’ groups (Bentolila et al., 2013). This paper aims to propose a new reading of the empirical evidence and claims that more-flexible contractual forms do not disperse remuneration schemes across workers, in particular when referring to the role of rent sharing in wage formation, but rather lead to a two-pick convergence process. We propose a quasi-experimental analysis using a unique employer–employee panel database for Italy’s Veneto region from 1996 to 1999. Veneto is a highly industrialized region of Italy that ranks among the most developed and densely populated regions in Europe. As in any Italian region, the level of centralization of the wage-bargaining system is extremely high, and wage setting is characterized by a “two-level” bargaining system (a first, national level, where minimum wages are set for all occupations/sectors; and a second level, where additional wage premia are set at the individual or company level). In the period covered by this study, the Veneto labour market recorded job creation jointly with high labour mobility and worker turnover comparable to the Anglo-Saxon countries. Therefore, the Veneto labour market represents a valuable experience for analysing and drawing conclusions in the current debate on the pros and cons of labour reforms intended to introduce flexibility in remuneration schemes.
This study refers to a precise event: the labour reform that came into force in Italy in June 1997 (Law 196/1997; known as the *Treu Reform*). This law was one of the most comprehensive initiatives undertaken to make the Italian labour market more flexible, and its success counted on the agreement of all social partners. It introduced temporary contracts (creating Temporary Work Agencies\(^1\)), extended fixed-term contracts as the standard for apprenticeship,\(^2\) provided incentives for part-time work, and allowed for a certain degree of flexibility in contractual weekly working hours and remuneration. The outcome of this reform was asymmetric employment-protection legislation characterized by an abnormal development of “atypical” contracts to control for the persistent rigidities of conventional employment contracts. Unions were concerned with the protection of *insider* workers (full-time permanent workers), while the reform seemed designed to create greater opportunities for new entrants and other *outsiders*.\(^3\) However, evidence suggests that the probability of obtaining a tenured contract (and thus becoming an insider) seems to have decreased while the number of temporary contracts increased (Gagliarducci, 2005). Furthermore, apprenticeship contracts have been improperly used; in many cases, the training component has been neglected in order to provide funding for enterprises.\(^4\) Put differently, apprenticeship contracts have become just a form of temporary (atypical) employment allowing for an exception to tradition contractual forms on the basis of age criteria (Tiraboschi, 2006). Insiders are still the category of workers

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\(^1\) These agencies are employment service providers for temporary staffing.

\(^2\) An apprenticeship contract is a fixed-term contract that addresses individuals between 16 and 24 years old. Its standard duration is usually 18 months to 4 years, with some exceptions for the hand-craft sector. This contract involves low wages for workers with respect to the market wages for similar skill-type positions, but employers are expected to be actively involved in on-the-job training processes of their apprentices.

\(^3\) Insider-outside models usually assimilate insiders with employees and outsiders with the unemployed (Bentolila et al., 2013). Workers employed under standard (full-time, open-ended) contracts are subject to high firing cost and are covered by collective-bargaining agreements to protect wages. These workers are qualified as insiders. In contrast, atypical or temporary workers cannot be assimilated to insiders, since their concerns are often neglected by insiders and unions (then, they are labelled as outsiders).

\(^4\) The work-training contracts (CFL) have also been used improperly, often neglecting the training component. CFLs were introduced in 1984 by law 863/84, and they were modified by law 56/87, which extended their applicability to all economic sectors, and by law 451/94, which raised the age limit for their applicability from 29 to 32.
that companies are most willing to invest in, in terms of specific human capital. Thus, insiders may capture a portion of the rent by means of the accrued bargaining power associated with the ad-hoc training process at the firm level and even the existence of firing or hiring costs. However, insiders may also have an interest in recruiting low-wage, atypical workers when they could really favour an increase in the firm’s profits and thus, indirectly, insiders’ wages (Cahuc and Zylberberg, 2004). Viewed from this perspective, insiders may take advantage of the creation of new flexible and atypical contractual forms if they keep entrants in less-favourable situations (namely, not being able to qualify as insiders) and tilt the partition of the firms’ profits to their own advantage. Consequently, the reform has the potential to increase rent sharing in practice (on average), raising wage premia strictly linked to productivity. However, heterogeneity in rent sharing can be observed depending on a specific firm’s characteristics and/or sector of activities. For instance, innovative firms may often need to invest more in creating human capital through employees and, therefore, labour contracts are expected to be characterized by high levels of rent sharing. In addition, differences in contract–renegotiation rules, the degree of centralization of the bargaining system, the rate of job destruction/creation, and the average duration of continuing jobs may lead to differences across sectors in terms of wage treatment (Boeri, 2009, 2010).

Our aim is to provide an empirical exercise that emphasizes how the Treu reform was producing change in the wage treatment of insider employees but without entailing important dispersion effects in their payment schemes. We address two precise open questions. On the one hand, we are interested in analysing the impact of rent sharing on contractual wages of insider workers before and after the reform. On the other hand, we track the joint dynamics of wage elasticity associated with the rent-sharing implementation in the different sectors in order to detect whether any difference (at the
sector level) marks this evolution and, eventually, exacerbates dispersion in remuneration schemes across insider workers. The former question is addressed by implementing an IV empirical strategy, whereas the latter is addressed using the stochastic kernel technique (as introduced by Quah, 1997). In this framework, the dynamic evolution of the quasi-rent elasticity over time lets us achieve a novel conclusion: Greater flexibility yields the two-pick convergence in rent-sharing elasticity across sectors. Therefore, favouring rent sharing in labor contracts yields positive effects that are not limited only to the low degree of dispersion of remuneration schemes across sectors; wages become strongly associated with worker productivity, and this condition generates important advantages in terms of firms’ competitiveness.\(^5\) Thus, this strategy could be useful to overcome the limitations of the current rigidities of the European labour market that often entails the lack of proper workers’ incentives.

The rest of the paper is organized as follows. Section 2 briefly reviews the literature on rent sharing. Section 3 proposes a description of the data we select to run our estimations, while Section 4 introduces the empirical strategy, and Section 5 discusses the results. Section 6 develops further insights about policy issues and, finally, Section 7 is our conclusion.

2. Brief literature overview on rent sharing

Empirical evidence and part of the literature have often argued that employees share some of the rents earned by their employers (e.g., De Menil, 1971; Blanchflower, Oswald and Sanfey, 1996). In a competitive labour market this should not happen; wages should be determined by labour market conditions only, and no firm should have incentives to pay

\(^5\) Two-pick convergence must be considered as a process belonging to the category of clubs of convergence. It shares a basic feature with \(\sigma\)-convergence in the sense that it has to be intended as a measure of the decrease in the rate of dispersion of an economic variable. Quah (1993) suggests that \(\sigma\)-convergence can also be interpreted as a dynamic by which the distribution of an economic magnitude becomes more equitable.
wages beyond the level set by the labour market. Nevertheless, the phenomenon of rent sharing is empirically observed (see references below), and its intensity may vary between industries and/or sectors according to the level of centralization of the wage-bargaining system and the existence of firm-specific contracts. If employers and employees bargain on wages, wages at the firm level are determined by workers’ outside options, by the quasi rent (firm profits evaluated at the opportunity cost of labour), and by the relative bargaining power of the parties involved (Hildreth and Oswald, 1997).

Literature began by focusing on the link between wages and productivity in countries characterized by a high degree of decentralization of the wage-bargaining system, providing important empirical evidence on rent sharing (e.g., Blanchflower, Oswald and Sanfey, 1996, for the US; Christofides and Oswald, 1992, and Abowd and Lemieux, 1993, for Canada; Nickell and Wadhwani, 1990, and Hildreth and Oswald, 1997, for the UK).

More recently, various papers have examined the existence of rent sharing in countries characterized by intermediate-to-high degrees of centralization of the wage-bargaining system. Margolis and Salvanes (2001) investigate the case of France and Norway, identifying signals of relevant rent sharing only in the case of Norway. Focusing on Swedish employer–employee data, Arai (2003) finds not only robust evidence of rent sharing but also that it does not differ across worker categories. Guertzgen (2009) discusses how rent sharing is affected by the different levels of bargaining in Germany. He shows that rent sharing is higher where there is no union sector coverage and in the presence of firm-specific contracts (in particular, blue collar workers’ rent sharing disappears under centralized contracts). In a country where the relative importance of industry- and firm-level agreements differs significantly across industries, as in Belgium,
Rusinek and Rycx (2008) document the existence of rent sharing in decentralized industries, while in centralized industries, rent sharing is observed only for workers covered by a firm agreement. Martins (2009) exploits Portuguese data and finds evidence of a significant and substantial amount of rent sharing in worker contracts.

Some studies have previously investigated the existence of rent sharing in Italy. Using 1983–1998 data from the Italian basic metal industry, Pistoresi and Strozzi (2001) assess that rent sharing arises only at the centralized level of wage bargaining, while decentralized wage negotiations do not lead to any degree of rent sharing. Referring to 1996–2003 Italian data, Matano and Naticchioni (2011) find robust evidence of rent sharing at firm level with estimates of the elasticity of wages with respect to profits per employee of about 6 per cent. They also determine that the impact of rent sharing is not homogeneous across several dimensions (gender, occupation, sector, and geographic area). Furthermore, Matano and Naticchioni (2013) identify the existence of a different degree of rent sharing between men and women that increases along with wage distribution, resulting in a glass-ceiling effect. Finally, Card, Devicienti and Maida (2013) investigate the degree of rent sharing and test the hold-up hypothesis in the region of Veneto (Italy) for the period 1995–2001. Their findings show that there is evidence of a substantial degree of rent sharing in Veneto, with an elasticity of wages with respect to profits on the order of 3 to 5 per cent and varying according to the sector.

3. **Data description**

Our analysis is run by exploiting the 1996–1999 Veneto Worker Histories (VWH) data set. This is a longitudinal linked employer-employee data set developed by the Department of Economics at the University of Venice Ca’ Foscari and based on
administrative records of the Italian Social Security Institute. This longitudinal data set covers the universe of worker histories in Veneto in the private sector for more than twenty years, up to 2001. It includes register-based information that allows researchers to build a history of the working life of each employee who has been hired for at least one day by an establishment based in Veneto, regardless of the worker’s place of residence. In regard to employees, the VWH includes total earnings during the calendar year for each job; the number of days worked during the year; the worker’s gender, age, region (or country) of birth; occupation; and seniority with the firm. In regard to employers, the VWH includes the type of sector; the dates of opening and closure of the firm (if applicable); and the firm’s location.

Business-level balance sheet data were obtained by merging the VWH data set with the AIDA database from 1996 until 1999. AIDA is a database provided by Bureau Van Dijk that contains comprehensive fiscal information on Italian companies such as value added, profits, sales, production, and costs of production. We use the tax code identifiers to match firm and year observations. Even if the matching is sufficient, our final sample shrinks because AIDA does not include the universe of Veneto firms, while VWH does. We retain in the final sample only full-time workers ages 15 to 64 employed in businesses with at least 10 belonging to managers, blue- and white-collar, with at least two observations in the panel. We end up with an employer–employee panel database formed by 201,279 workers for 461,659 observations for the period 1996–1999. Table 1 displays the descriptive statistics of the variables of the analysis. On average, 65 per cent are blue-

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6 AIDA includes only firms with annual sales above 500,000 euro. Refer also to Card et al. (2013) for a discussion about the possibility of merging VWH and AIDA data sets.

7 Data on profits are deflated using the value added deflator (base year, 2003). As in Matano and Naticchioni (2013), we drop observations for which the difference in absolute value between the firm size reported in AIDA and the firm size reported in VWH is higher than 200, as well as extreme observations below (above) the 1st (99th) percentile of wages and profits per employee. As in Card et al. (2013) part-time workers and apprentices are not included in the sample. Employees in the agricultural sector are also not included.
collar workers, and 32 per cent have tenures longer than 9 years. Their mean daily (real) wage was 59 Euros.

Our main dependent variable is the level of wages, and our principal regressors are the real quasi-rent per worker and its interaction with a dummy to identify the period after the 1997 Treu reform. As in Matano and Natachchioni (2013), the quasi-rent is the revenue per worker minus the alternative wage that we proxy with the average industrial wage (Van Reenen, 1996).\(^8\) To control for national-level bargaining, we include in our estimation the minimum wage corresponding to the worker’s specific occupation/sector.

Table 1. Descriptive statistics

| Variable                          | Mean |
|----------------------------------|------|
| Log real daily wage              | 4.078|
| Log real minimum daily wage      | 3.250|
| Age                              | 35.812|
| Tenure 0–1                       | 0.133|
| Tenure 2–9                       | 0.544|
| Tenure > 9                       | 0.323|
| Blue collar                      | 0.654|
| White collar including managers  | 0.346|
| Log firm size                    | 4.367|
| Log quasi-rent per employee      | 2.801|
| Number of groups                 | 201279|
| Number of observations           | 461659|

Real wages and real quasi rent: base year, 2003

4. **Empirical strategy**

In order to investigate our research questions, our empirical strategy is twofold: first, we test the existence of a structural break after the 1997 Treu reform; second, we test the

\(^8\) The average industrial wage is computed by occupation and year.
existence of a convergence process of the elasticity between rent sharing and wages across the sectors.

The starting point of our analysis is a before–after estimator of the elasticity of wages with respect to quasi-rent per employee. Our baseline specification is the following:

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\log(w_{ijt}) = \alpha + \beta \log(qr_{jt}) + \beta_{\text{treu}} \log(qr_{jt}) D_{1997} + \gamma X_{ijt} + \varepsilon_{ijt}
\]

(1)

where \(w_{ijt}\) is the average daily wage earned by employee \(i\) in business \(j\); and year \(t\), \(X_{ijt}\) is a vector of observed individual and job attributes (gender, age, age-squared, tenure, occupation, log minimum wage, log business size, sector, area, and year); \(\varepsilon_{ijt}\) is the error term, and \(\log(qr_{jt})\) is log real quasi-rent per employee, which is also interacted to \(D_{1997}\) (a dummy signalling the period after 1997) to test whether the Treu reform did in fact have an impact on wages, namely if \(\beta_{\text{treu}} \neq 0\). Our empirical strategy is built on estimating equation (1) according to different estimation techniques in order to check the robustness of the results. Our benchmark is ordinary least squares (OLS) estimations. We then move to fixed effect (FE) estimates to control for individual and business unobserved heterogeneity. Previous literature (Van Reenen, 1996; Card et al., 2013; Matano and Naticchioni, 2013) shows that FE may lead to a significant underestimation of the elasticity of wages with respect to quasi-rents if wages and profits are simultaneously determined. Therefore, we address the endogeneity problem using an instrumental variables (IV) approach to obtain unbiased estimates. We introduce the following instruments. First, we follow the idea suggested by Card et al. (2013) by using the lagged value added per worker in other Italian regions,\(^9\) also interacted to \(D_{1997}\). The main idea for this instrument is that national-sector demand shocks affect company-level profitability but have no direct effect on local labour conditions. Second, we propose

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\(^9\) Based on average revenues per worker for firms in the AIDA database in the same 4 digit sectors (5 digits when possible).
another instrument that is the ratio between the number of employees in a firm to the total number of individuals employed in the 4-digit sector in Veneto, also interacted to $D_{1997}$. The relative weight of a firm in a sector is a good proxy of its economic relevance in a market and, therefore, of its ability to act as a leader on the production side, which yields the possibility to fix market prices in a way that maximizes its own profits.

In order to assess the dynamics of the changes of wage elasticity (by sector) with respect to the implementation of rent sharing, we rely on the stochastic kernel method of analysis as introduced by Quah (1997). This method is a generalization of the Markov transition matrices; it works with multimodal distributions and deals with their dynamics. It focuses on the determination of the intra-distribution dynamics of a sample of observations and contrasts their behaviour with the representative average of the sample itself. In this way, it is somewhat possible to detect polarization effects in the changes of the variables of interest referring to a selected sample with respect to two points in time (before and after the reform). In this setting, we consider as our variables of interests the elasticity of rent sharing (by sector) estimated according to the procedure described above. Once these estimations have been run, we study the law of motion (at the sector level) of the variation of rent-sharing elasticity from before the reform to after it, according to the criteria defined by Quah (1997), and we plot these in a two-dimension graph to interpret the results.

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10 This instrument varies across firms allowing to estimate the elasticity of wages with respect to quasi rent per employee at the 3-digit sector level and, therefore, to perform our dynamic analysis.

11 This exercise relies on the quantification of a hypothetical average behaviour of each observation having as fixed points two estimated values. In this estimation procedure, the key issue is the definition of the law of motion. As is usual in the literature, here we follow the process described by Quah (1997).
5. Results

We discuss the results in two steps. First, we discuss the existence of a structural break after the Treu reform, presenting the before and after estimates of the elasticity of wages with respect to quasi rents per employee. Then, we analyse the importance of the convergence process of the elasticity between rent sharing and wages across sectors.

5.1 Does a structural break exist?

Estimates of the elasticity of wages with respect to quasi rents per employee are reported in Table 2. All the variables of interest are in logarithms, and therefore we estimate elasticity. First, in all estimates our variables of interests (namely the real quasi rent – rQR- and its interaction- rQR*d-) turn out to be always statistically significant, with an (expected) positive sign but with different magnitudes. OLS estimates fix an elasticity of wages with respect to quasi rents per worker of 6.8 per cent over the period 1996–1999 (Columns 1–2, Table 2). In particular, the elasticity is 6.3 per cent before the reform, and it moves to 7.1 per cent after the reform (Columns 3–4, Table 2). As expected, FE underestimates the estimated elasticity (see Columns 5–6, Table 2). Using an IV approach, we find that the elasticity of wages with respect to quasi rent per employee is 8.5 per cent before the reform and 9.5 per cent after it (see Columns 7–8, Table 2). These results confirm that workers’ wages increase via rent sharing as in the literature (Matano and Naticchioni, 2011, 2013; Card et al., 2013). A more-flexible labour market fuels the elasticity of wages with respect to the quasi rent per employee.
### Table 2. Estimates

| Dependent variable: | OLS (specification I) | OLS (specification II) | FE | FE+IV |
|---------------------|-----------------------|------------------------|-----|-------|
|                     | Coef                  | S.E.                   | Coef | S.E.  | Coef | S.E. | Coef   | S.E. |
| Log real daily wage | 0.068 *** 0.000       | 0.063 *** 0.001        | 0.004 *** 0.000 | 0.085 *** 0.010 |
| i=rQR*d             | 0.008 *** 0.001       | 0.007 *** 0.000        | 0.010 *** 0.002 |
| Log real minimum wage | 0.032 *** 0.003       | 0.032 *** 0.003        | 0.007 *** 0.001 | 0.010 *** 0.001 |
| Female              | -0.196 *** 0.001      | -0.196 *** 0.001       |                                |
| Age                 | 0.031 *** 0.000       | 0.031 *** 0.000        | 0.051 *** 0.001 | 0.046 *** 0.002 |
| Age-squared         | 0.000 *** 0.000       | 0.000 *** 0.000        | 0.000 *** 0.000 | 0.000 *** 0.000 |
| Tenure is 2–9 years | 0.063 *** 0.001       | 0.063 *** 0.001        | 0.021 *** 0.001 | 0.022 *** 0.001 |
| Tenure is > 9 years | 0.110 *** 0.001       | 0.110 *** 0.001        | 0.020 *** 0.001 | 0.021 *** 0.001 |
| White collar and manager | 0.269 *** 0.001 | 0.269 *** 0.001 | 0.041 *** 0.002 | 0.046 *** 0.002 |
| Log firm size       | 0.012 *** 0.000       | 0.012 *** 0.000        | 0.046 *** 0.001 | 0.042 *** 0.001 |
| Sector dummies      | yes                   | yes                    | yes | yes   |
| Area dummies        | yes                   | yes                    | yes | yes   |
| Year dummies        | yes                   | yes                    | yes | yes   | yes | Yes  |
| Constant            | 2.917 *** 0.010       | 2.951 0.012            | 2.510 *** 0.014 | 2.440 *** 0.052 |
| R2–overall          | 0.470                 | 0.470                  | 0.140 | 0.209 |

Note: (*), (**), (***), significance at 1%, 5%, and 10% respectively.
5.2 The convergence process

Once we establish the positive and statistical significance of the relationship between real quasi rent and wages, we turn to an analysis of the extent to which the reinforcement of the rent sharing option in wage setting has fuelled discrimination among workers. This question is the most relevant for Italian labour institutions, where wage determination already has an important discretionary component in the firm-specific wage premium. The implementation of a rent-sharing contract type introduces a further element to nurture the firm-level bargaining process, amplify the heterogeneity among workers, and, de facto, create potential dispersion of treatment schemes for workers having the same qualifications, working in the same sectors but in different firms. In order to track the dynamics of the variation in rent sharing, we estimate, using the IV approach discussed above, the elasticity of the real-quasi rent (versus wages) for our sample of companies when aggregated into 3-digit sectors12 before and after the reform. The outcomes of these estimations serve as a stochastic kernel estimation. Figure 1 presents a two-dimension graph picturing rent-elasticity estimated values (for each of the 43 sectors with available data) before the reform (y-axis) and after the reform (x-axis).

Figure 1: Stochastic kernel for rent sharing (after versus before the reform)

12 Overall, we deal with 43 sectors. More details about the aggregation criteria are available upon request.
Following the criteria of interpretation as discussed in Quah (1997), the picks of the distribution (namely the most-concentrated areas) represent the mass probability. They are orthogonal to the horizontal axis, depicting the existence of a two-peak convergence process in elasticity across sectors. The estimations unveil that there is a major convergence point around low elasticity values (around 0.02) and another (minor) point around larger elasticity values where the convergence dynamics (namely the orthogonality) are not so strong as the first one. Looking at the composition of the groups of sectors converging to the different level, we observe interesting patterns. We identify that traditional, international competitive sectors usually facing fierce competition whose production does not have a high technological content (such as textile or furniture sectors) experience relatively low rates of elasticity. Instead, traditional but not international competitive sectors (like services) with a low degree of competition because of the specificity of the products (for instance, craft-made metal sector) or sectors whose production displays an important technological dimension (chemical sectors, for instance) converge versus higher level of elasticity, as one would expect from the discussion in Section 1. Therefore, the main conclusion of our analysis is that, on the basis of the Italian experience, more-flexible market institutions seem to be efficient in reducing the dispersion in worker rent-sharing across sectors at a different rate and become more equitable in the spirit of Quah (1993).

6. Policy discussion

The Treu reform came into force at a quite particular moment for the Italian economy. On the one side, there was the progressive evolution towards a bi-polar model of political competition. On the other, external forces working for the accomplishment of the Maastricht criteria and aiming at deeper economic integration in the European Union
generated considerable pressure for reform that would make the Italian labor market more flexible (OECD, 2009). The external constraints provided by the accomplishment of the Maastricht criteria prevented the Italian government from relying on the practice of canonical competitive devaluation to make firms more competitive in international markets. From 1993 on, the two-wage bargaining system allowed to gain productivity (and, then, competitiveness) through the implementation of the rent-sharing practice at the firm level and gave incentives to workers to be more productive, favouring a profit-sharing scheme between employers and employees.

In a situation in which a country is experiencing a deeper integration process, the presence of a two-wage bargaining system exacerbates the differences between more-productive and less-productive firms and, as a consequence, enlarges the rifts between the corresponding employees. More-productive firms are usually identified as those that are very active in innovation processes and exporting. Being more productive, these firms pay wage premia, and this translates into different rent-sharing results for employers in the two categories of firms (Bagger et al., 2011). According to our results, the Treu reform endorsed the adoption of rent sharing in wage formation. It succeeded in reducing the degree of unionization of the market (OECD, 2009) and, at the same time, favoured a profitable risk-sharing effect that translated into a progressive two-peak convergence (in the treatment schemes of insiders) across sectors.\(^\text{13}\) This type of convergence has to be seen as a progressive reduction of the dispersion of rent sharing whose main differences seem pegged to the innovation vs. non-innovation dimension of the sectors of activities to which they belong.

\(^{13}\) This result is in line with the evidence already discussed in Oswald (1996): profitable rent-sharing effects appear to be larger in less-unionized firms.
The Treu reform produced advances in making remuneration schemes more flexible, but at the same time, it deepened a structural gap in the composition of the Italian labor market. The main contributions were the creation of temporary work agencies and the attention addressed to new forms of recruiting for young people including apprentices. These new contractual forms represent an important innovation for a relatively sticky labor market. However, the lack of full assimilation of these two categories of labor contracts demonstrates the main structural problem that the Treu reform was not taking into consideration: Most of the apprenticeship contracts often had no chance to get tenured. Outsiders knew this, but they were basically forced to accept this deal since no truly outside option was possible or available (OECD, 2009). Three types of evidence endorse this outcome. First, the phase of the business cycle was not the most favourable to consolidate new contractual forms because the Italian economy was in a stagnant period. The convergence path to the EURO accession (completed in 1998) and the consequent limitation in fiscal and monetary policies (above all preventing the adoption of the competitive devaluation practice) generated a period in which the Italian economy could not grow at a sustained rate to create employment in a structural form. Second, the social parties allowed for the introduction of these flexible, contractual forms only once an agreement about the consolidation of the employment protection for permanent employees had been achieved.14 Unfortunately, this rigidity reinforced the dualism of the Italian labour market characterized by asymmetric labor protection legislation between insiders and outsiders. Third, the strict regulation of the labor market limits the consolidation of necessary incentives for fostering the educational training of the labor

14 Moreover, the probability of obtaining a tenured contract decreases as long as the number of temporary contracts increases (Gagliarducci, 2005).
force as an effective strategy to get tenured in labor positions, as well as labor productivity associated with workers’ skills.

The importance of implementing a rent-sharing practice and its strong connections with the organization of the production at the firm level brings us to a further discussion. Based on the experience of other European countries (OECD, 2009), more-incisive results could have been obtained by privileging rent-sharing schemes in more-flexible labor markets with fewer contractual distinctions between incumbent workers and newcomers. Further, our results indicate an important dichotomy that the reform is not able to amend: This is the persistence of the difference in wage treatment between innovative and non-innovative sectors, the latter being more resilient to the implementation of the rent-sharing practice. This signifies the importance of intervening not only on the structure of the labour market but also on the organization of the production if a reformer targets consistent results when implementing a labor reform via rent sharing. Rent sharing reinforces the connection between wages and profits: More profits can be achieved when firms become more competitive by becoming more productive. A typical way to increase productivity is to implement training and innovation programs that turn out to be two of the key features that make rent sharing more effective. In this respect, a joint action involving the introduction of policies supporting labor reform and promoting educational training and innovation might represent a good combination to achieve persistent results in making the labour market more flexible and to reduce dispersion in remuneration schemes across workers.
7. Conclusions

The introduction of new institutions that allow for making working conditions more flexible in countries with a long collective tradition entails not only advantages in terms of labor incentives for workers but also favours convergence at a different rate in the rent-sharing process across insider workers belonging to different sectors. In this respect, reforms proposing alternative instruments that lead to the protection of workers’ interests under a novel contractual framework are welcomed. Our results confirm the positive association between rent sharing and wages for insider workers. The Treu reform leads to more rent sharing. Furthermore, in dynamic terms, the Treu reform also favoured a two-peak convergence process in rent-sharing elasticities (with respect to wages) that practically entailed less-dispersed dynamics for insiders across sectors.

Our results are particularly important if we consider that fostering the adoption of rent-sharing contract types should generate positive returns for productivity and employment. These are two of the main important dimensions European economies (those in Southern Europe above all) need to work on in order to keep their competitiveness focused on a more-integrated international environment.

According to data availability, it could be interesting to extend this type of analysis to other countries and track their wage evolution over time in order to (i) detect the factors by which rent sharing may trigger productivity and (ii) produce more exhaustive policy evaluations for implementing effective contractual schemes.

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