BJIR An International Journal of Employment Relations   **LSE**

Employer associations in Italy: Trends and economic outcomes

Bernardo Fanfani[1] ⓘ | **Claudio Lucifora**[2] ⓘ | **Daria Vigani**[2]

[1]Department of Economics, Social Sciences, Applied Mathematics and Statistics, Università di Torino, Turin, Italy

[2]Department of Economics and Finance, Università Cattolica, Milan, Italy

Correspondence
Bernardo Fanfani, Department of Economics, Social Sciences, Applied Mathematics and Statistics, Università di Torino, corso Unione Sovietica 218b (10132) Turin, Italy.
Email: bernardo.fanfani@unito.it

Abstract

This study analyses the representativeness of employer associations in Italy, using unique firm-level data with information on employers' affiliation and their characteristics. We document that a persistent decline in affiliation rates to employers' associations has occurred during the last two decades. We show that affiliated companies are positively selected, as they tend to be larger, older, more likely to be located in richer regions, to be export and innovation oriented, and more likely to provide training. Using longitudinal data and regression decomposition techniques, we show that larger firms have been more affected by the decline in affiliation rates over time. Finally, we show that the level of representativeness of employers' associations has a weak positive effect on collective bargaining occupational wage minima settled by these organizations in national industry-wide collective contracts after a negotiation process with trade unions.

1 | INTRODUCTION

The functioning of trade unions and the effects of unionism have been extensively studied since the seminal work by Freeman and Medoff (1984). Instead, employers' associations, which are the most common negotiating partner of trade unions, have not received the same attention in the

empirical literature until only very recently (Martins, 2020). An important dimension of employers' associations is their representativeness. These organizations typically shape the regulatory environment faced by firms and workers. This influence can occur either directly, such as in the context of collective contract negotiations, or indirectly, as employers' associations exert a powerful influence on policy proposals in virtually all countries. However, not much is known about which part of the underlying population of firms is covered and represented by them. The purpose of this study is to uncover the size, evolution across time and characteristics of affiliated firms with respect to the rest of the population in the Italian context. Moreover, we test whether the level of representativeness of employers' associations influences bargaining outcomes negotiated by them, focusing on contractual wage standards.

The decision to become affiliated is a complex process, which could be only loosely related to the perceived opportunity of gaining political influence. When the interests of employers are perfectly aligned, non-membership can be interpreted as free-riding behaviour in the context of a collective action problem, and incentives to participate in such organizations could be mostly unrelated to the political process (Olson, 1965; Jirjahn, 2022). Even in the presence of conflicting interests across firms, individual employers could have limited possibilities of influencing the political priorities of relatively large and complex organizations.

As a consequence, the strongest incentives to become affiliated are probably related to the services offered by these organizations and to potential profit opportunities arising from the coordination of conflicting business interests within such organizations (Behrens, 2017; Martins, 2020). Indeed, a fundamental function of these organizations is to provide services to affiliated companies, such as networks, coordination strategies, assistance on regulatory issues, as well as guidance on business opportunities (Demougin et al., 2019). However, if the aggregate outcome of individual affiliation decisions leads to a systematic misalignment between the characteristics of affiliated and unaffiliated companies, a tension between the political priorities of employers' associations and the underlying interests of individual firms could emerge (Martinez Matute & Martins, 2022).

Italy is an interesting case study not only because it represents a large, manufacturing-oriented economy, but also because it is characterized by a relatively centralized collective bargaining system, one of the most common form of co-determination adopted among Western countries (OECD, 2018; Bhuller et al., 2022).[1] In a similar institutional context, employers' associations tend to be well structured and they tend to be relatively powerful (Katz, 1993). In Italy, some of the dispositions settled by collective contracts bargained by employers' associations, particularly those concerning occupational wage minima, have a *de facto* legislative power and can be directly enforced by labour courts also in firms that are not members to such associations. Apart from this official function of writing collective agreements together with trade unions, Italian employers' associations typically exert a considerable soft power on the legislative process, too. For example, during 2019 alone, *Confindustria* (the largest employers' association) has been requested to provide a formal opinion on legislative issues to the Italian Parliament around twice a month.

Our empirical analysis is based on the INAPP-RIL survey.[2] This is a national representative firm-level survey that was conducted in four waves between 2005 and 2015. It contains a rich set of information on employers' characteristics. Importantly, this database provides information on each employer's affiliation status. Given that official statistics on employers organizations are not publicly available, the data considered in this study currently represent the main nation-level representative database providing information on firms' affiliation rates.

We first show that affiliation rates have been declining over time. Evidence on the evolution of affiliation rates over time is not abundant, but our finding is consistent with Brandl and Lehr

(2019), the main available cross-country study that includes Italy.[3] Our results show that in 2005, 64 per cent of the firms were affiliated and 84 per cent of the workers were employed in an affiliated company, while in 2015, these percentages dropped to 44 per cent and 67 per cent, respectively. We then provide a detailed account of which firms' characteristics predict the decision to become member of an employer association, showing that affiliated companies tend to be positively selected. Indeed, even when controlling for differences in membership rates across sectors and regions, affiliated companies are more likely to be older, larger, to provide training, to be innovative, more productive and export oriented.

We explored in more detail the determinants of the trend in affiliation rates over time relying on a decomposition approach. This analysis shows that the decline in membership was not driven by significant differences in the sample composition. Differences in characteristics of firms accounted for only around 17 per cent of the observed decline. Differences in the marginal effects of firms' characteristics on the probability of affiliation accounted for another 43 per cent of the decline. The decline in affiliation rates not linked to firms' characteristics nor to the marginal effects associated with such characteristics accounted for another 45 per cent. Finally, a residual positive effect on affiliation dynamics could be attributed to differences in the predictive models between 2005 and 2015. Larger firms, but also less innovative, export- and training-oriented ones, were more affected by the decline in affiliation rates conditional on other characteristics.

Overall, this evidence suggests that the decision to become member of an employers' association is more attractive for productive, established and innovative firms. More vulnerable enterprises seem instead to gain less from these organizations. This produces a weakened representativeness for the latter type of firms, which was in part exacerbated by the decline in affiliation rates occurred during the recent years. On the other hand, also larger firms, which could potentially have more resources to conduct decentralized bargaining, seem to have reduced their reliance on employers' associations over time.

We then investigate whether the behaviour of employers' organizations is affected by the level of their representativeness. In particular, we focus on one of the most important outcomes of collective bargaining negotiations, namely contractual wages. These pay floors are settled by employers' associations through a negotiation process carried out together with trade unions at the level of the national sector. Importantly, dispositions regarding wages are automatically extended to all companies in the relevant sector, so that they are binding also for employers who are not affiliated to such organizations. In our analysis, we test whether the growth in contractual wages differs depending on the coverage of employers' associations, as measured by the affiliation rate of companies applying a given collective contract.

Results from this analysis show that a higher representativeness of employers' organizations has a weak positive effect on bargained wages, although this effect is small and significant only in some of the specifications. The dynamics of productivity and business cycle conditions within contracts have even smaller or not significant effects on contractual wages, a result consistent with previous evidence showing a quantitatively small sensitivity of wages to product market and unemployment dynamics at the Italian and European level (e.g. Rosolia, 2015; Matano et al., 2022; Martins, 2021, and Card & Cardoso, 2022). The consumer price index was the only variable exerting a strong influence on contractual wages, for which we found an elasticity above 1, implying that bargained pay levels were more than proportionally adjusted for the cost of living during the study period.

The slight downward pressure on negotiated pay levels associated with a decline in affiliation rates could be in part the result of a tougher negotiation strategy adopted by employers' organizations as a response to the decline in their representativeness. These findings are consistent with

evidence suggesting that cooperative relations with trade unions are more likely to arise where the density of employers' associations is higher (Behrens & Helfen, 2016). They are also broadly consistent with studies pointing out that stronger employers' associations may view slack low-pay standards as a competitive threat for their members, rather than as an opportunity (Bosch, 2018; Haucap et al., 2001).

This study contributes to the literature on employers' associations representativeness and its evolution across time (Brandl & Lehr, 2019; Martinez Matute and Martins, 2022). It shows that affiliation rates have declined in Italy in recent years and it illustrates the determinants of this trend. It also contributes on the literature on selection into employers' associations, showing that affiliated firms are generally more productive, innovative and that they provide more training, which is consistent with recent evidences on this subject for other countries (Martins & Thomas, 2023). Finally, it contributes to the literature on wage setting in unionized labour markets and on the economic effects of employers' organizations (Bhuller et al., 2022), by showing that higher affiliation rates among employers may have a positive influence on bargained contractual wage levels.

The article is organized as follows. Section 2 provides a short institutional framework on the Italian system of industrial relations. Section 3 presents the data along with descriptive evidence on the characteristics and evolution of employer associations in Italy. Section 4 presents the results obtained from several regression models. Section 5 provides the conclusions.

2 | INSTITUTIONAL SETTING

This section illustrates the main features governing the role and representativeness of the actors involved in social dialogue in Italy, with a particular focus on employer associations (see Caponetti, 2018 and Forlivesi, 2018).

Collective bargaining in Italy is characterized by a two-tier structure, where the first tier (Contratti Collettivi Nazionali di Lavoro - CCNL) sets minimum wage schedules and work standards at the industry-wide level, and the second tier, at the decentralized level (firm or local), negotiates additional components of wages and other regulatory aspects. Collective bargaining at the industry level takes place between trade unions and employer associations (or their sectoral federations), while firm-level bargaining is conducted by employee representative bodies elected in works councils.

While on the unions' side, there is a relatively small number of actors (seven main confederations,[4] and a number of minor unions), the landscape on the employers' side is much more fragmented, with 25 main organizations,[5] reflecting the different characteristics and interests of affiliated firms.

Employer associations originated as a response to the spread of workers' associations, to preserve the interests of affiliated firms through national collective bargaining, and their representation is mainly based on the sector of economic activity, dimension and legal status of affiliated firms. However, recent technological and organizational changes, together with the rapid emergence of new sectors and business models, have induced firms to join together according to different criteria, giving rise to new cross-sectoral associations that overcome the traditional organization based on sectors of economic activity. Moreover, the organizational structure of employer associations can be at the confederal, federal or local (regional) level, and firms can join more than one association.

Fragmentation and pluralism have also been fostered by collective bargaining decentralization process, the inadequacy of national collective agreements to adjust to the changing world of work and regulatory uncertainty characterizing the whole system of industrial relations. In this context, large companies, with sufficient bargaining power, can choose to apply the most convenient collective agreement or even opt out of the employer association, simply relying on firm-level agreements. Recent examples include FCA-Fiat Chrysler Auto, Luxottica and IBM, that dropped their membership with respective employer organizations to gain further flexibility compared to national sector-level agreements, or signed company-level agreements with different provisions. On the other hand, small and medium firms often join together in new organizations to identify alternative collective agreements, instead of resorting to firm-level bargaining.

In an attempt to stem increasing fragmentation and decreasing representation, employer associations recently started offering a number of additional services to their members. Such services, that currently represent a major driver of membership, range from services strictly connected to the collective bargaining activity of associations (credit management, collective agreements or disputes with public administration) to services related with mandatory obligations for firms (taxes, payrolls, safety or mandatory certifications and training) or with business development, as well as fiscal and welfare services for the entrepreneur (health care, social security and insurance). Moreover, some employer associations allow associative relationships that do not involve representation in collective bargaining and the application of the national collective agreements (i.e. members can choose to apply a different collective agreement with respect to the one signed by the employer association), but only the provision of services.

3 | DATA, DESCRIPTIVE STATISTICS AND FIRST EVIDENCE

Our analysis on employer associations is based on the INAPP-RIL survey, which is a longitudinal survey on Italian firms in the private non-agricultural sector. This survey is composed of four waves (2005, 2007, 2010 and 2015). Each wave contains around 20,000 companies, and part of these firms are observed more than once across waves.

The INAPP RIL survey represents the main national-level representative source of information on employer representation in Italy, as it contains a specific question about whether firms are members of an employers' association. This variable does not contain the identity of the particular organization to which a firm is affiliated, thus we have defined membership simply as being affiliated to at least one of the existing employers' associations. The database also contains a rich set of information on firms' characteristics (including a section on collective bargaining and industrial relations) that allows us to conduct an in-depth analysis on the evolution and the determinants of membership to employers' associations, as well as the effects of the latter on numerous outcomes. Table A1 in the Appendix provides a definition of all the variables derived from the INAPP RIL survey that we have considered, together with information on their mean and standard deviation in each wave.

In this section, we provide descriptive evidence on the evolution of employer association over time, on the characteristics of affiliated and unaffiliated companies, and on their dissimilarity. Section 4 presents instead regression analyses on the determinants of affiliation and on its effects at the firm and aggregate level.
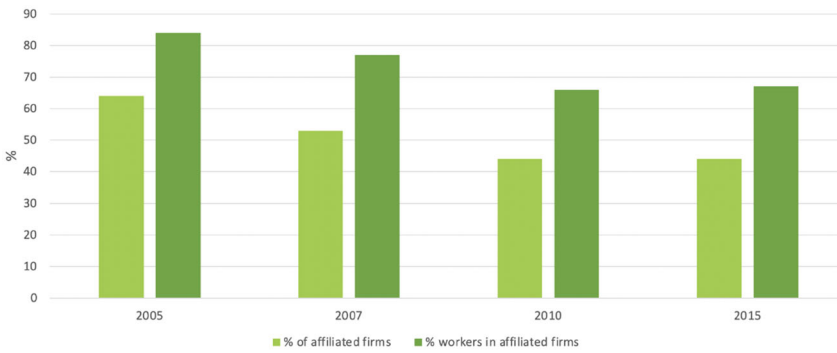
FIGURE 1   Evolution of employers' association membership over time. [Colour figure can be viewed at wileyonlinelibrary.com]

3.1 | Decline of employer association over time

The INAPP-RIL survey allows us to uncover the evolution of employer association in the recent years. Figure 1 shows the evolution of employer associations' membership rates in the four waves of the INAPP-RIL survey.[6] A clear decreasing trend in membership emerges. While, in 2005, 64 per cent of the firms were affiliated and 84 per cent of the workers were employed in an affiliated company, in 2015, the same percentages were 44 per cent and 67 per cent, respectively. Most of this decline took place between 2005 and 2010, while membership rates remained relatively stable between 2010 and 2015.

Italy has been characterized by a long economic recession with negative or flat GDP growth in all years between 2008 and 2013, which could have influenced the decline in affiliation. The trends described above are consistent with the hypothesis that the coverage of employer association tends to be pro-cyclical. In this regard, the decline in representation flattened out as the economy started to recover. It is also worth noticing that since 2011 a series of reforms concerning collective bargaining and the possibility of opting out from part of the dispositions of collective agreements started to kick in. The relationship between decentralization of collective bargaining and employer association density can be quite complex and influenced by several institutional and organizational factors (e.g. Katz, 1993). On this respect, Sheldon et al. (2016) provide recent qualitative evidence for Italy, suggesting that decentralization of the bargaining process may represent a threat to employers' organizations and induce a decline in affiliation rates.

Figure 2 shows membership rates by year and class of firms' size. As can be noticed, larger companies are more likely to be affiliated in all years. However, the decline in membership rates over time has been quite similar in all classes of firm size. Indeed, membership rates dropped from 92 per cent to 73 per cent among companies above 50 employees, while the same rate dropped from 61 per cent to 41 per cent among companies below 15 employees between 2005 and 2015.

Figure 3 shows the evolution of employer association by geographical area and time. The decline in affiliation rates has been more heterogeneous considering its geographical dimension, as it has been accompanied by an increase in regional differences between companies located in the North-Eastern part of the country, with respect to companies located elsewhere. Indeed, between 2005 and 2015, membership rates decreased only from 68 per cent to 57 per cent in the North-East, while they decreased from 64 per cent to 46 per cent in the North-West, from 63 per cent to 40 per cent in the Centre and from 59 per cent to 31 per cent in the South of Italy. Also in
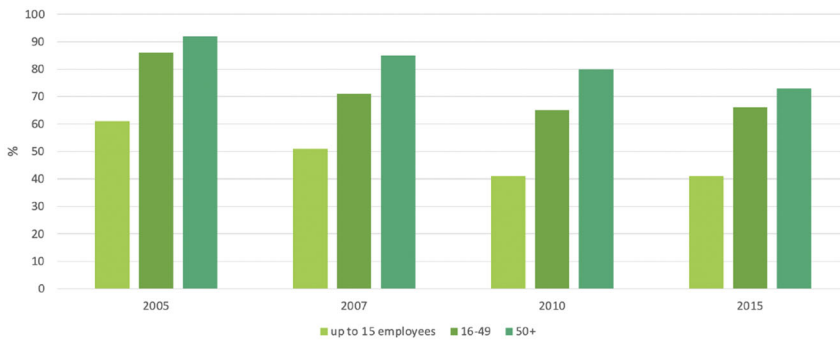
FIGURE 2 Evolution of employers' association membership by firms' size. [Colour figure can be viewed at wileyonlinelibrary.com]
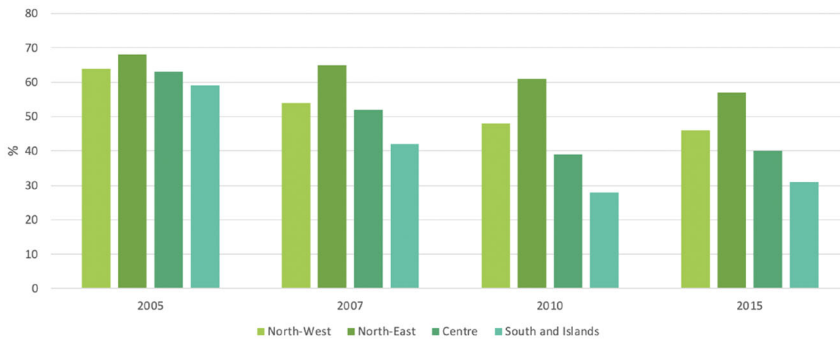

FIGURE 3 Evolution of employers' association membership by area. [Colour figure can be viewed at wileyonlinelibrary.com]

this case, it appears that the decline in employer association has affected more regions that were more vulnerable to the economic recession.

Finally, Figure 4 shows the evolution of employer association by sector and time. Companies in the manufacturing sector were the most likely to be affiliated to an employers' association. In this case, the decline in membership between 2005 and 2015 has been relatively similar in size across sectors, changing from 76 per cent to 56 per cent in the manufacturing sector, from 68 per cent to 45 per cent in the primary, commodities and construction sectors, from 61 per cent to 42 per cent in the trade, transport and tourism sectors and from 51 per cent to 36 per cent in the rest of the services sectors.

3.2 | Characteristics of affiliated firms

In order to gain a more detailed picture of the characteristics of affiliated companies, we have relied on the rich set of variables available in the INAPP-RIL survey. In this section, we present descriptive statistics on firms' characteristics by membership status derived from the 2015 wave of the INAPP-RIL database, which is the most recent wave available. For comparison purposes, where possible we compute the same descriptive statistics on the 2005 wave of the database, in

FIGURE 4 Evolution of employers' association membership by sector. *Notes: Statistics weighted using sampling weights. The percentage of workers in affiliated firms is obtained by multiplying each firm by its number of employees. Source: INAPP-RIL survey..* [Colour figure can be viewed at wileyonlinelibrary.com]

TABLE 1 Descriptive statistics by employers' association membership — INAPP-RIL 2015.

| Type of firm: | Affiliated | | Not affiliated | | | |
Variable	Mean	St.dev.	Mean	St.dev.	Difference	Observations
N. employees	17.3	266.9	6.5	42.3	**	26,079
Ln revenues per worker	4.63	1.25	4.63	1.42		16,280
Age of firm (years)	25.3	13.7	20.6	11.7	**	26,058
North	62.9%		48.3%		**	26,079
Centre	21.9%		25.9%		**	26,079
South	15.2%		25.8%		**	26,079
Utility/construction s.	13.4%		12.5%		**	26,079
Manufacturing s.	24.6%		14.8%		**	26,079
Services s.	62.0%		72.7%		**	26,079
Applies collective contr.	88.1%		69.5%		**	26,079
Presence of trade union	8.3%		2.6%		**	26,079
Second-level bargaining	5.3%		1.0%		**	26,079
Innovative firm	40.0%		28.2%		**	26,079
Access fiscal incentives	6.4%		3.6%		**	26,079
Provides training	42.9%		25.6%		**	26,079
Exports production	19.1%		14.4%		**	26,079
Not incorporated	42.8%		33.0%		**	26,079

Note: Statistics weighted using sampling weights. **: 0.01 significance in the two-sided test of equal average between affiliated and non-affiliated firms (test performed using sampling weights). Source: INAPP-RIL, 2015 wave.

order to gain a better understanding of the evolution of the characteristics of affiliated companies over time.

Table 1 provides descriptive statistics on several firms' dimensions by membership status computed on the 2015 wave. As can be noticed, members of an employer's association tend to be larger (17.3 vs. 6.5 employees); they tend to be older (25.3 vs. 20.6 years old); they are more likely to be located in the North and to belong to the manufacturing sector; they are more likely to apply a collective agreement, to engage in decentralized bargaining and to have a firm-level presence of

TABLE 2 Descriptive statistics by employers' association membership — INAPP-RIL 2005.

Type of firm: Variable	Affiliated Mean	St.dev.	Not affiliated Mean	St.dev.	Difference	Observations
N. employees	13.4	165.3	2.564	9.235	**	18,758
Ln revenues per worker	4.619	0.983	4.780	0.984	**	7631
North	58.8%		57.1%		**	18,781
Centre	23.9%		25.1%		**	18,781
South	17.3%		17.7%		**	18,781
Utility/construction s.	13.7%		11.1%		**	18,781
Manufacturing s.	27.4%		11.5%		**	18,781
Services s.	58.9%		77.3%		**	18,781
Second-level bargaining	6.1%		0.8%		**	17,269
Innovative firm	51.2%		39.6%		**	18,058
Provides training	22.6%		8.4%		**	18,446
Exports production	23.2%		14.4%		**	18,374
Not incorporated	56.9%		58.5%		**	18,781

Note: Statistics weighted using sampling weights. **: 0.01 significance in the two-sided test of equal average between affiliated and non-affiliated firms (test performed using sampling weights). Source: INAPP-RIL, 2005 wave.

trade unions. Affiliated firms are also more export oriented, more likely to provide training and more innovative. However, no significant differences emerge in the level of revenues per worker between affiliated and non-affiliated firms, while the proportion of incorporated businesses is higher among unaffiliated companies.

In general, the above findings suggest that firms affiliated to employers' associations tend to be positively selected, considering dimensions, such as their propensity to provide training or to introduce innovations. Moreover, they are larger and more likely to be located in the richest regions of the country. For what concerns the higher propensity to apply a collective contract, the result is not surprising considering that, according to the Italian legislation, members to an employers' association are committed to all the clauses contained in collective agreements signed by the association to which they belong.

Table 2 provides similar descriptive statistics computed on the 2005 wave of the database.[7] As can be noticed, most relationships hold also in this sample. In particular, affiliated firms tend to be larger, more likely to be located in the North, to belong to the manufacturing sector, to be export, innovation oriented and to provide training. However, affiliated firms have also slightly lower average revenues per worker and are more likely to be incorporated.

In Section 4.1, we provide a regression analysis on the determinants of the decision of becoming affiliated to an employer's association. This analysis allows to gain a better understanding of the differences in firms' characteristics between affiliated and unaffiliated companies taking into account sample selection mechanisms, such as differences in affiliation rates across sectors or regions that could be ascribed to historical and institutional factors. Furthermore, in Section 4.2, we discuss the results derived from an Oaxaca decomposition designed to test whether the decline in affiliation rates observed between 2005 and 2015 can be ascribed to composition effects, or whether membership rates have declined among firms with similar characteristics. Before turning to this analysis, in the next section, we provide further evidence on differences between members and non-members to employers' associations using the dissimilarity index method.

TABLE 3 Dissimilarity index in the INAPP-RIL 2015 and 2005 databases.

INAPP-RIL 2005 database	INAPP-RIL 2015 database
0.516	0.339
Observations	*Observations*
18,941	26,079

Note: The dissimilarity index is computed separately for cells of three firm size levels, four geographic levels and 12 industry levels in the INAPP-RIL 2005 and 2015 databases.

3.3 | Dissimilarity of firms depending on affiliation status

Martinez Matute and Martins (2022) study whether higher membership rates lead to lower dissimilarity in firms' characteristics between affiliated and unaffiliated companies. In principle, as membership to employers' organizations grows, we may or may not reach a higher representativeness of these associations considering firms' dimensions, such as the size or the geographic location. For example, higher affiliation rates in some sectors could be led by a larger participation of northern companies — which are generally more likely to be affiliated — or by a larger share of southern companies that are members. In the former case, higher affiliation rates would not be indicative of a higher representation of firms that are typically less likely to be members of an employers' organization. Whether employers' organizations are more intensively participated by similar firms as they grow in size, or whether they become more representative of the underlying firms' heterogeneity, is an empirical question, which has relevant implications for the evaluation of the representativeness of employers associations in the bargaining process.

The approach proposed by Martinez Matute and Martins (2022) relies on the Duncan and Duncan (1955) dissimilarity index to provide a synthetic measure of differences between affiliated and unaffiliated companies. This index is defined as:

$$D = \frac{1}{2} \sum_{j=1}^{J} \left| \frac{a_j}{a} - \frac{na_j}{na} \right|,$$

where j index a labour market cell, J is the total number of cells, a_j is the number of affiliated firms in cell j, a is the total number of affiliated firms, while na_j and na are the number of non-affiliated firms in cell j and the total number of non-affiliated firms, respectively. The index D ranges between 1, in case of perfect dissimilarity between the sample composition of affiliated and non-affiliated firms, and 0 in case of perfect similarity.

In constructing this index, an important step consists of defining labour market cells. We have followed an approach similar to Martinez Matute and Martins (2022), defining a labour market cell as the interaction between sectors, regions and classes of firms' size. In particular, we have used a definition of cells constructed using three firm size levels (below 15, between 15 and 49 and above 49 employees), four geographic levels (North-West, North-East, Centre and Southern Italy) and 12 industry levels. We have separately computed the same dissimilarity index in the 2015 and 2005 waves of the INAPP-RIL database.

Table 3 shows that the dissimilarity index was considerably higher in the 2005 wave of the database (0.516 instead of 0.339). To put these results in perspective, notice that Martinez Matute and Martins (2022) find for Italy a dissimilarity index of 0.306 using the 2013 European Company Survey. In the same study, the dissimilarity index ranges between 0.161 and 0.583 in European countries, and Italy appears to be in the middle of this distribution. Therefore, our finding for

2005 is relatively high. In this regard, the 2005 wave also coincides with the highest affiliation rate among the various INAPP-RIL waves, thus our finding of a high dissimilarity seems consistent with the positive association between affiliation rates and dissimilarity levels documented at the European level by Martinez Matute and Martins (2022).

The decline in dissimilarity between affiliated and unaffiliated firms from 2005 to 2015 can be in part attributed to the economic crisis occurring within this period. If we consider affiliation as a proxy for a firm's productivity and resilience (as several of our analyses suggest), a mechanism consistent with the decline in dissimilarity is that the crisis could have induced cleansing effects and reduced the size of market cells more intensive in the presence of unaffiliated firms. This result shows that it is important to go beyond membership rates and to characterize differences between affiliated and unaffiliated firms in order to properly evaluate the representativeness of employers' organizations in the bargaining process.

In order to gain a better understanding on the relationship between the dissimilarity index and affiliation rates, Figure 5 provides the correlation between the dissimilarity index computed separately for each sector, and affiliation rates to employers' associations within each industry, considering the most granular sectoral classification available in both waves.

In both years, manufacturing sectors had a relatively higher affiliation rates to employer's associations, while most services sectors had relatively lower membership rates. The correlation between the sector-specific dissimilarity indexes and affiliation rates is mostly flat within each wave of the INAPP-RIL database. The absence of a positive cross-sectional correlation between affiliation and dissimilarity suggests that there are qualitative differences in affiliation to employers' organizations at the sectoral level. A higher popularity of these organizations in a sector could be both, the result of a more intensive affiliation within market cells where firms are already more likely to be members, or a more intensive affiliation in market cells where membership is less common. This might reflect a heterogeneous incentive structure to membership, which could be the result of the sectoral structure of the bargaining process in Italy.

4 | REGRESSION ANALYSIS

In this section, we present the results derived from different regression analyses conducted on several waves of the INAPP-RIL databases. First, in Section 4.1, we consider the determinants of firms' decision to become members of an employers' association, by considering as an outcome of interest the affiliation status of firms.

Section 4.2 provides an analysis of the determinants of the decline in affiliation rates over time, adopting an Oaxaca decomposition approach. Using this method, we uncover along which firms' characteristics the decline in employer association was more pronounced and how the affiliation choice has evolved over time, while controlling for differences in sample composition.

Finally, in Section 4.3, we study whether employers' associations are influenced by the dynamics of their representativeness in collective bargaining negotiations. In particular, we look at whether contractual wages bargained by trade unions and employers' associations are affected by the dynamics of affiliation rates among firms that apply collective contracts, linking the INAPP-RIL data to a hand-collected database on contractual wages.
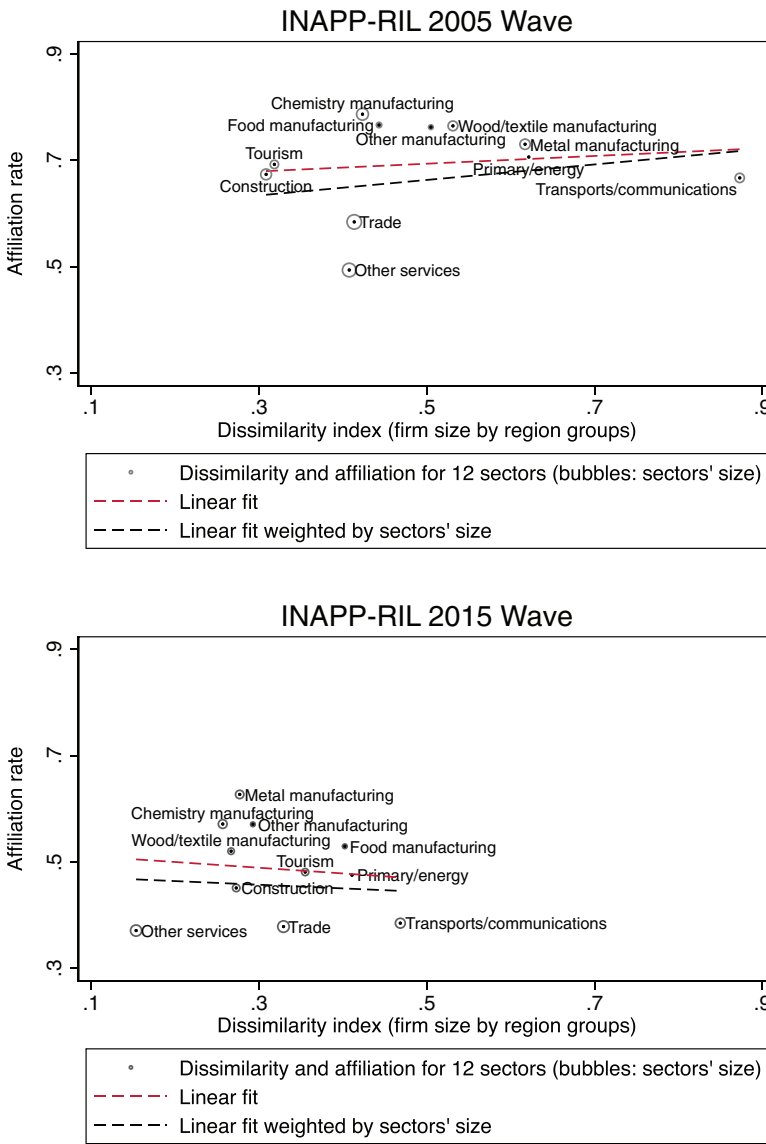
FIGURE 5 Correlation between dissimilarity index and affiliation rates across sectors and time. Notes: The dissimilarity index is computed in each sector using four geographical location categories and three firms' size categories. Sectors' size (represented by the diameter of each bubble) is computed by summing up the number of employees in each sector using sampling weights. Source: 2005 and 2015 INAPP-RIL databases. [Colour figure can be viewed at wileyonlinelibrary.com]

4.1 | Determinants of membership to employers' associations

In this section, we analyse the main drivers of firms' decision to become members of an employer association. In particular, we employ a linear probability model, in which the outcome of interest is a binary variable equal to one if a given company is affiliated to an employers' organization.

TABLE 4 OLS regression on the determinants of membership to employers' associations — INAPP-RIL 2015.

Variable	Coeff.	St. Err	*p* val.	Coeff.	St. Err	*p* val.
Ln firm size				0.039	0.003	0.000
Ln revenues per worker				0.008	0.003	0.003
<3 years old firm	−0.055	0.050	0.268	−0.052	0.050	0.294
3–10 years old firm	−0.094	0.012	0.000	−0.085	0.012	0.000
Presence of trade union	0.128	0.010	0.000	0.082	0.010	0.000
Applies a collective contract	0.238	0.012	0.000	0.229	0.012	0.000
Second-level bargaining	0.078	0.011	0.000	0.052	0.011	0.000
Access fiscal incentives	0.042	0.011	0.000	0.028	0.011	0.010
Innovative firm	0.077	0.008	0.000	0.070	0.008	0.000
Provides training	0.124	0.008	0.000	0.102	0.008	0.000
Exports production	0.033	0.010	0.001	0.018	0.010	0.077
Not incorporated	0.024	0.009	0.008	0.064	0.010	0.000
Observations	16,270			16,270		
R^2	0.200			0.207		
RMSE	0.442			0.440		

Notes: The outcome is an indicator for members of an EA. Fourteen sector-by-twenty region fixed effects are also included in the regression. Robust standard error and two-sided test *p* values are reported.
Source: This sample is taken from the 2015 INAPP-RIL survey.

The regression model reads as follows:

$$y_j = \beta x_j + s_j + r_j + s_j * r_j + e_j, \tag{1}$$

where y_j is an indicator variable equal to one if firm j is affiliated to an employers' association, x_j is a set of covariates and a constant term, s_j is an industry fixed effect, r_j is a geographic area fixed effect, while e_j is the residual. An interaction between industry and region fixed effects is also included in order to control for the role of sector-specific differences in affiliation decisions in each geographical location.

We have estimated the regression model of Equation (1) on the 2015 wave of the INAPP-RIL database.[8] We have included 14 sector fixed effects and 20 region fixed effects, while the set of controls contained in the vector x_j is listed in Table 4. Descriptive statistics for each of these variables were discussed in Section 3.2 and are presented in Table 1. The use of this linear probability model allows us to evaluate which kind of firms are more likely to be members of an employers' association, taking into account that this decision tends to be highly heterogeneous across sectors and regions. Moreover, studying affiliation decisions using a multivariable regression model also allows to estimate the separate role of a very rich set of characteristics in driving the decision to be a member of an employers' association. Indeed, the set of covariates available through the INAPP-RIL questionnaire and included in the model accounts for several firms' demographic characteristics, productivity and innovation propensity, as well as for the structure of industrial relations within each company.

Table 4 provides the estimated regression coefficients, robust standard errors and *p* values of the two-sided test on the equality of the coefficient to zero, as estimated using the linear probabil-

ity model presented above. We have estimated two alternative specifications of this regression. In the left panel of Table 4, we have omitted size and productivity from the set of regressors. These two variables, if strongly affected by reverse causality due to the influence of employers' associations on firm performance, could represent a sensible source of bias in our estimates. However, the limited differences in the parameters obtained from the alternative specifications reported in Table 4 suggest that this was not the case.

Table 4 shows that a 10 per cent increase in the number of employees is associated with an increase in the probability of being affiliated of around 0.4 percentage points. Moreover, younger firms are relatively less likely to be members of an employers' association. The regression results also suggest that the application of collective contracts, the presence of trade unions at the firm level, the presence of firm-level bargaining, the propensity to introduce innovations in the production process and to provide training are all factors that have a positive effect on the probability of affiliation. In particular, the effects of training and the application of collective contracts appear to be quite strong, as companies providing training are 10 percentage points more likely to be affiliated, while the same effect is of 20 percentage points for companies applying collective contracts. Also, unincorporated businesses are more likely to be affiliated. The 2015 wave of the INAPP-RIL survey also contains information on whether the firm had access to fiscal incentives during the previous year, and this variable appears to have a positive effect on the outcome.

There are some variables that have less clear effects on affiliation rates. In particular, the propensity to export has a positive, but only marginally significant effect on the probability of affiliation. The survey also contains information on revenues per worker, which can be interpreted as a rough measure of a firm's efficiency in the production process. Overall, this variable appears to have a positive effect on the probability of membership, although the size of the marginal effect is not particularly large.

Overall, the results of this regression analysis provide a quite coherent picture on the characteristics of affiliated companies. Firms that decide to be member of an employers' association tend in general to be positively selected, considering that such firms are larger, more innovative, engage more in decentralized bargaining and they provide training opportunities. A positive association between affiliation and training is also documented by Martins and Thomas (2023), who argue that the presence of non-poaching agreements among affiliated firms could reduce labour mobility and increase the incentives for providing training. Affiliated firms are also more likely to be unionized, a factor that in the Italian context has been shown to be associated with higher capital investments (e.g. Cardullo et al., 2020). Moreover, affiliated companies seem to be in general more established, as they tend to be older, and they appear to be export oriented and better connected to public institutions, as they more often benefit from fiscal incentives. On the contrary, younger and smaller firms are less likely to be affiliated.

In conclusion, these results suggest that employers' associations provide more valuable services to relatively healthier companies, while unaffiliated firms may consider the decision to become member as a burden due to potential costs and obligations that are attached to this decision. For example, among potential costs, there are stricter labour regulations and employee representation standards that are typically attached to legally binding collective agreements signed by these organizations.

4.2 | Determinants of the decline in affiliation rates over time

In this section, we adopt an Oaxaca decomposition approach in order to study the drivers of the decline in affiliation rates over time, which we have documented, from a descriptive point of view,

in Section 3.1. For this purpose, we estimate a linear probability model similar to the one presented in the previous section. However, we fit two separate regressions for the 2005 and 2015 waves of the INAPP-RIL surveys. The model estimated within each year reads as:

$$y_j = \beta x_j + e_j,$$

where y_j is an indicator variable equal to one if firm j is affiliated to an employers' association, x_j is a set of covariates (which include industry fixed effect, geographic area fixed effect and other firms' characteristics) and a constant term, while e_j is the residual. Let $\hat{y}_j^{05}$ and $\hat{y}_j^{15}$ denote the average affiliation rates in 2005 and 2015, respectively. Using standard results (see Jann (2008)), the difference in affiliation rates over time can be decomposed as follows:

$$\hat{y}_j^{15} - \hat{y}_j^{05} = \underbrace{\beta^{15}\big[E(x_j)^{15} - E(x_j)^{05}\big]}_{E} + \underbrace{(\beta^{15} - \beta^{05})E(x_j)^{15}}_{C} +$$
$$- \underbrace{(\beta^{15} - \beta^{05})\big[E(x_j)^{15} - E(x_j)^{05}\big]}_{I} \qquad (2)$$

where E is an endowment effect, which captures the effect that differences in observable firms' characteristics over time exert on affiliation rates. C represents a coefficient effect, which captures the amount of differences over time in the propensity of being affiliated among firms with equal observable characteristics, while I is an interaction effect, accounting differences in the predictive model between 2005 and 2015.

In the present context, the most interesting element of the decomposition provided in Equation (2) is represented by the coefficient component C, as this element allows to uncover how much did the affiliation rate change between 2005 and 2015 among firms with the same observable characteristics. The component E measures instead the effect of differences in the sample composition across years. For these two components of the difference in affiliation rates, we have also computed the separate contribution of each explanatory variable. This exercise provides a clear picture of which type of companies have been more affected by the decline in association rates, and which factors drive the difference in the sample composition.

The detailed decomposition of the coefficient component is not invariant to the choice of the reference groups of categorical variables. To overcome this problem, we have adopted the solution proposed by Yun (2005). That is, we have computed each coefficient component of categorical variables as the average across all possible choices of reference group.[9]

Table 5 provides the results derived from the Oaxaca decomposition model described above. Due to small differences in the questionnaire across each wave of the RIL survey, we were not able to include the full set of explanatory variables considered in the cross-sectional model of Section 4.1, and we have instead restricted the analysis on the set of variables available in both years. In general, the affiliation rate decreases by 19 percentage points in the sample of analysis between 2005 and 2015. Only around 17 per cent of this decline can be ascribed to differences in the sample composition over time. Instead, most of the decline is linked to differences in the propensity of being affiliated among observationally similar firms. Indeed, the coefficient component of the decomposition accounts for around 90 per cent of the raw difference in affiliation rates over time.

Table 5 also reports the contribution of each characteristic to the total coefficient effect. In interpreting this component of the difference, it is useful to consider the role of the intercept separately. The intercept difference across models, which account for more than 45 per cent of the

TABLE 5   Oaxaca decomposition on the decline of affiliation rates (pooled 2005 and 2015 INAPP-RIL databases).

Variable	Parameter	St. error	*p* val.
Affiliation rate 2015	0.602		
Affiliation rate 2005	0.791		
Difference in affiliation	−0.189	0.012	0.000
Endowments	−0.033	0.011	0.004
Coefficients	−0.168	0.009	0.000
Interaction	0.012	0.010	0.240

	Detailed decomposition					
	Coefficients' component			Endowments' component		
	Parameter	St. error	*p* val.	Parameter	St. error	*p* val.
Ln n. employees	−0.089	0.015	0.000	−0.002	0.007	0.719
Ln revenues per worker	0.041	0.030	0.180	0.000	0.000	0.823
Firm-level bargaining	0.009	0.001	0.000	0.000	0.000	0.665
Innovative firm	0.014	0.003	0.000	−0.003	0.001	0.002
Provides training	0.017	0.004	0.000	0.002	0.001	0.056
Export oriented	0.007	0.003	0.016	0.001	0.001	0.341
Not incorporated	0.011	0.004	0.009	−0.002	0.001	0.045
North-West	*Omitted*			*Omitted*		
North-East	0.008	0.006	0.137	−0.001	0.001	0.013
Centre	0.002	0.003	0.565	−0.001	0.000	0.175
South	−0.007	0.003	0.012	−0.004	0.001	0.001
Primary/commodities	−0.009	0.005	0.062	−0.002	0.001	0.051
Manufacturing	*Omitted*			*Omitted*		
Construction	0.002	0.002	0.336	0.000	0.000	0.351
Trade	0.000	0.000	0.952	−0.001	0.001	0.260
Tourism	−0.002	0.002	0.345	−0.001	0.001	0.330
Transport	0.004	0.004	0.331	0.000	0.000	0.623
Other services	0.006	0.006	0.358	−0.003	0.007	0.648
Sum of reference groups	−0.095	0.014	0.000	−0.016	0.004	0.000
Intercept	−0.086	0.040	0.032			
Observations	23.039					

Note: Oaxaca decompostion computed on the INAPP-RIL database (2005 and 2015 waves) to divide decline in affiliation rates over time into an endowment, coefficients and interaction effect. The contribution of each explanatory variable to the coefficient and endowment effects is reported in the lower part of the table. Standard errors are reported clustering at the sector level (12 groups).

decline in affiliation, reflects a general decline in membership between observationally similar firms. Instead, the effects associated with each explanatory variable reflect the decline in affiliation that can be linked to changes in the marginal effect that each regressor had on the probability of affiliation between 2005 and 2015. This part of the coefficient effect accounts for around 43 per cent of the decline in affiliation.

The decline in affiliation rates has been significantly stronger among larger firms, as the weaker conditional size–membership relationship accounts for around 8.9 percentage points of the decline in affiliation between 2005 and 2015. Therefore, lower affiliation among relatively

TABLE 6 Effects of employers' association representativeness on contractual wage growth.

Variable	Aggregated sample. Outcome: Ln avg. contractual wage					
	Coeff.	St. Err.	*p* val.	Coeff.	St. Err.	*p* val.
Sh. affiliated firms	0.041	0.032	0.197	0.042	0.026	0.111
CPI	1.471	0.351	0.000	1.636	0.304	0.000
Ln contract employment	−0.000	0.006	0.985	−0.006	0.006	0.365
Ln avg. firm size	−0.010	0.009	0.307	−0.005	0.008	0.504
Ln avg. rev. per worker	0.006	0.007	0.388	0.002	0.006	0.763
Share second-level barg.	−0.007	0.057	0.900	−0.009	0.054	0.872
Share exporters	0.000	0.039	0.991	0.019	0.035	0.598
Share manufacturing				−0.058	0.039	0.138
Share services				0.019	0.041	0.650
Share primary/energy				−0.003	0.040	0.948
Share North-West				0.008	0.041	0.846
Share North-East				0.007	0.044	0.879
Share Centre				0.048	0.034	0.166
Year fixed effects	Yes			Yes		
Contract fixed effects	Yes			Yes		
Observations	431			431		
Adj. R^2	0.980			0.983		
RMSE	0.021			0.019		
Variable	Disaggregated sample. *Outcome: Ln avg. contractual wage*					
	Coeff.	St. Err.	*p* val.	Coeff.	St. Err.	*p* val.
Affiliated firm	0.002	0.001	0.002	0.002	0.000	0.001
CPI	1.709	0.090	0.000	1.709	0.091	0.000
Ln firm size	−0.001	0.000	0.098	−0.001	0.000	0.081
Ln revenues per worker	0.000	0.000	0.049	0.000	0.000	0.049
Share second-level barg.	0.001	0.001	0.267	0.001	0.001	0.325
Exporter	0.002	0.002	0.276	0.002	0.002	0.245
Sector fixed effects	Yes					
Location fixed effects	Yes					
Sector by location fixed effects				Yes		
Year fixed effects	Yes			Yes		
Contract fixed effects	Yes			Yes		
Observations	35,000			35,000		
Adj. R^2	0.990			0.990		
RMSE	0.017			0.017		

Note: Regressions computed on the aggregated and disaggregated INAPP-RIL database matched to the contractual wage data. The number of collective contract fixed effects included is 148. Years included are 2005, 2007, 2010 and 2015. Standard errors are clustered at the collective agreement level. Regressions are weighted by total employment within each collective contract in the aggregated database.

larger firms was an important determinant of this decline.[10] Anecdotical evidence discussed in Section 2 suggests that larger firms had probably more opportunities of opting out of employers' organizations during the recession. Having sufficient bargaining power, larger companies were sometimes able to gain more flexibility by opting out of employers' organizations, and this tendency could be reflected in this result.

Looking at other variables contributing to the coefficient component, the effects are relatively smaller. However, the decline in affiliation has been significantly weaker among firms that applied a second-level collective contract, those that were unincorporated, more likely to provide training, innovative and export oriented. Overall, this picture seems consistent with the hypothesis that the decline in representation was less pronounced for employers more inclined to engage in decentralized bargaining, thus more likely to be unionized, as well as for firms operating in more international, innovative and complex sectors, where employees' training is more common. For these companies, the value of membership was probably less affected by the economic recession.

Finally, the role of endowment effects was quite limited also when looking at the separate contribution of each variable. There were only small differences in the geographical composition of firms, but most effects were quite limited in size.

4.3 | Representativeness of employers' associations and collective contracts' pay floors

In this section, we assess whether the level of representativeness of employers' associations has an influence on their negotiating behaviour when they bargain collective agreements. In particular, we test whether bargained minimum wages tend to be set differently depending on the share of firms that are affiliated to employers' associations among companies applying the same collective contract.

The contractual wages considered in this section are pay floors set by employers' associations and trade unions at the level of the national sector. Thus, they are not set in firm-level negotiations, as they are bargained at a quite centralized level. Like in several other countries, the application of these minimum wages is automatically extended at the industry-wide level beyond the group of firms that are members of the employers' organizations signing the collective contract.

The influence of social partners on negotiated wage dynamics has been mostly considered with reference to the role of trade unions, as this topic has been extensively studied since the seminal work by Freeman and Medoff (1984).[11] Surprisingly, little is known about the influence of the representativeness of employers' organizations on negotiated wages, even if these associations typically represent the negotiating partner of trade unions in contexts characterized by collective bargaining (OECD, 2018; Bhuller et al., 2022).

The literature on contractual wages set by collective bargaining has focused on several potential determinants of their dynamics. In particular, past research has focused on inflation and its relationship with contract duration (e.g. Christofides, 1985, Christofides, 1987, Christofides, 1990), on the elasticity of contractual wages to business cycle conditions (e.g. Abowd & Lemieux, 1993, Fougère et al., 2018, Martins, 2021), productivity dynamics (e.g. Card & Cardoso, 2022) as well as their relationship with other, government-legislated pay floors (e.g. Avouyi-Dovi et al., 2013). On this respect, some studies on Italy have found a negative relationship of unemployment and the exposure to international competition with contractual wages set through collective bargaining, even if these associations were quantitatively small (Rosolia, 2015; Matano et al., 2022).

In Italy, each collective contract sets several wage floors that have to be applied for different occupations within sectors. As shown by Fanfani (2022), in the recent years, contractual wages have followed very similar dynamics within each collective agreement for different occupations. Therefore, the average level of contractual wages of a collective agreement can be considered a good approximation of the growth rate followed by all occupation-specific minimum wages within the same contract.

In our analysis, we have matched the average contractual wage of the sector-wide collective agreement applied by each firm in all the available waves of the INAPP-RIL database.[12] We have estimated two alternative regression models. A first approach relied on the INAPP-RIL database aggregated at the contract-year level, by computing averages of several firms' characteristics within each contract in each wave. The resulting sample of analysis was composed of 148 collective contracts observed over several years, for a total of 431 observations. In a second model, we have used individual firms matched to their respective contractual wage without aggregating the data. In this case, the sample size was of 35,000 firm-year observations.

Using both databases, we have estimated the following regression model:

$$w_{(j)ct} = \beta x_{(j)ct} + \tau_t + f_c + e_{(j)ct} \qquad t = 2005, \ 2007; 2010; 2015,$$

where $w_{(j)ct}$ is the average minimum wage in collective contract c, year t (and firm j in the disaggregated model), $x_{(j)ct}$ is a vector of time-varying contract- or firm-level explanatory variables, τ_t is a year fixed effect, f_c is a collective contract fixed effect and $e_{(j)ct}$ is the residual.

Our independent variable of interest included in the vector $x_{(j)ct}$ is a measure of the representativeness of employers' associations among firms that apply the collective contract c. We have adopted two alternative definitions of employer associations' representativeness: the share of affiliated firms in the collective contract, when using the aggregated data; an indicator variable for affiliated firms, when using the disaggregated data. In the former case, the estimated marginal effect divided by 100 gives the conditional percentage growth in contractual wages for a 1 percentage point increase in the affiliation rate within the collective contract. In the latter case, the estimated parameter provides the conditional percentage growth in contractual wages associated with membership to an employers' association. Since the model includes collective contract fixed effects, differences in the probability of being affiliated between collective contracts do not contribute to the estimation of this parameter. This is identified only by differences in the probability of affiliation within collective contracts across time.

In both samples, the regression model fully accounts for time-constant unobserved heterogeneity in contractual wages between different agreements. Time fixed effects further restrict the variation to account for common shifts in contractual wages across contracts in each period. Thus, we have relied as identifying variation only on changes in minimum wages and in affiliation rates within the same collective agreement over time. Notice that the aggregated and disaggregated models use the same source of variation in identifying the parameter of interest. However, this variation is inflated when using individual firms as the unit of observation. In order to account for heteroscedasticity, we have clustered standard errors at the collective contract level. Moreover, when using the aggregated data, we have weighted the regression by the size of collective agreements, as measured by the total number of workers employed under each contract in each year.

Tables A2 and A3, in the Appendix, provide descriptive statistics on the two samples of analysis and on the explanatory variables included in each regression. The yearly growth rate of average minimum wages within contracts was of around 2.5 per cent in both samples. Around 61 per

cent of firms were affiliated. Moreover, 78 per cent of the workers to which the collective contract is applied were employed in an affiliated company. Overall, the number of variables that we were able to construct using the INAPP-RIL survey is quite rich and allows to take into account a large set of potential shifts in the sample composition of firms applying a given contract over time. We complement this information including also the consumer price index as a control, since contractual wage negotiations typically take into account inflation dynamics.

Table 6 shows the results of the regression models presented above. The coefficients associated with the variables measuring the representativeness of employers' associations are always positive, but they are not statistically different from zero in the aggregated sample. The point estimates suggest that contractual wages may grow by an additional 0.4 per cent for a 10 per cent growth in affiliation rates of firms, according to the evidence provided by the aggregated data. Similarly, being in an affiliated company is associated with contractual wages that are 0.2 per cent higher on average, according to the evidence provided using disaggregated data. Both results suggest that the share of affiliated firms within a collective contract has a weak positive impact on contractual wages. That is, greater affiliation rates to employers' associations do not translate into a lower growth in contractual wages.

This evidence is consistent with several mechanisms. First, higher membership rates may not be perceived as a signal to engage into tougher negotiations by employers' associations. The hypothesis that stronger employers' associations may not be inclined to negotiate slack wage standards has been put forward in the qualitative and theoretical industrial relation literature (Bosch, 2018; Haucap et al., 2001). Also, the hypothesis that more representative employer associations could not be able to adopt a tougher negotiating stand due to higher heterogeneity in the underlying population of firms that are affiliated is potentially consistent with our evidence. However, quantitatively testing this hypothesis is rather difficult, and a more qualitative approach would probably be better suited for this purpose.

A second mechanism consistent with our results is the following: if membership rates are pro-cyclical, then the positive association between contractual wage growth and the representativeness of employers' associations could simply reflect the underlying market forces influencing wage negotiations. Similarly, if employers' organizations tend to be more valuable for healthy firms, greater employers' representation should be associated with higher wage standards.

In this regard, it is interesting to notice that most other variables accounting for the composition of the underlying population of firms that apply collective agreements seem to have weaker or not significant influences on contractual wage dynamics. In particular, productivity is positively associated with contractual wage growth, but this relationship is not statistically significant in the aggregated data, while it is weaker in size than the coefficient associated with affiliation in the disaggregated data.[13] The only variable that seems to play an important role in driving contractual wages is the consumer price index. In this case, the adjustment of contractual wages to the cost of living appears to be more than proportional, as a 10 per cent growth in prices is associated with a growth in contractual wages between 15 per cent and 17 per cent, depending on the model specification.[14]

According to our results, the dynamics of negotiated wages seem to respond only weakly to business cycle conditions and productivity, while they tend to adjust more than proportionally to the cost of living. The former evidence seems to be overall coherent with previous evidence on Italy (Rosolia, 2015; Matano et al., 2022) and other European countries (e.g. Martins, 2021). In this context, the representativeness of employers' associations seems to play a relatively important role compared to other potential firm-level determinants of collectively bargained wage growth.

Moreover, the influence of higher membership rates on wages appears to be positive, even if quantitatively weak.

5 | CONCLUSIONS

We have provided novel evidence on employers' associations in Italy, showing that affiliation rates have been declining over the last two decades. We have shown that affiliated firms are positively selected and that the decision to become member to such organizations is positively correlated with firms' performance. These results are consistent with evidence documented for Portugal by Martins (2020). They suggest that dynamic and innovative firms gain more benefits from the services provided by employers' organizations. On the other hand, our evidence also suggests that in order to improve their representativeness, employers' organizations should provide better quality services to marginal, potentially fragile and financially distressed firms. Indeed, this type of companies risks being under-represented in the current system of collective bargaining, as well as being excluded from important policy negotiation platforms.

We have also provided direct evidence on the link between wages negotiated in collective contracts and the degree of representativeness of employers' organizations that bargain these pay floors. We documented a weak positive relationship between contractual pay growth and affiliation rates. The fact that higher representativeness of employers' associations may lead to potentially higher wages is consistent with qualitative evidence on the preferences of employers' associations (Bosch, 2018). Recent evidence on other forms of shared governance, in particular, mandatory employee representation in companies' boards, suggests that wage growth could be instead less affected by co-determination at a more granular level (Jäger et al., 2021). Future research should further investigate the role of employers' organizations in shaping collective bargaining as well as firm-level outcomes, in order to provide a more comprehensive picture of the functioning of such associations across different institutional contexts.

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID

Bernardo Fanfani https://orcid.org/0000-0002-0489-3120
Claudio Lucifora https://orcid.org/0000-0001-6352-1709

ENDNOTES

[1] A more granular, but less common, form of co-determination is mandatory workers' representation in company boards (see Jäger et al., 2021).

[2] The full name of this survey is *Rilevazione sulle Imprese e il Lavoro*. It is conducted by the *Istituto Nazionale per l'Analisi delle Politiche Pubbliche*, a research institute administered by the Italian Ministry of Labor.

[3] Interestingly, Brandl & Lehr (2019) show that a decline in affiliation is seldom observed in other European countries. Nation-specific evidences on the evolution of affiliation rates include Gooberman et al. (2019) and Silvia and Schroeder (2007) for the UK and Germany, respectively, which document a secular decline in the number of employer associations.

[4] CGIL, CISL, CISAL, Confsal, Casartigiani, UGL and UIL.

[5] Associazione bancaria italiana (ABI), Associazione Trasporti (ASSTRA), Confederazione italiana agricoltori (CIA), Confederazione Italiana Dirigenti e Alte Professionalità (CIDA), Confederazione Italiana di Unione delle professioni intellettuali (CIU), Confederazione Nazionale dell'artigianato e della piccola e media impresa (CNA), Confederazione nazionale coltivatori diretti (Coldiretti), Confederazione generale dell'agricoltura (Confagricoltura), Confederazione autonoma dei dirigenti, quadri e direttivi della PA (Confedir), Confartigianato, Confcommercio, Confederazione Cooperative Italiane (Confcooperative), Confesercenti, Confederazione generale italiana dei trasporti e della logistica (Confetra), Confindustria, Confederazione italiana armatori (Confitarma), Confservizi, Conftrasporto, Consiglio Nazionale dell'Ordine degli Assistenti Sociali (CNOAS), Consiglio Nazionale Geometri e Geometri laureati, Confederazione produttori agricoli (Copagri), Legacoop, Osservatorio Nazionale sul Volontariato, Osservatorio Nazionale sull'Associazionismo, Utilitalia.

[6] All descriptive statistics are computed using sampling weights. A definition of each variable derived from the INAPP-RIL survey is provided by Table A1 in the Appendix.

[7] Due to inconsistencies across questionnaires in different waves of the INAPP-RIL survey, some of the variables considered in 2015 were not available in the 2005 wave.

[8] In this section, we have chosen to present results considering only the 2015 wave of the INAPP-RIL database for two main reasons. First, due to inconsistencies in the questionnaire across years, the number of variables that could be included in a pooled regression on more than one INAPP-RIL wave would have been smaller and less detailed on several firms' characteristics. Second, results were qualitatively similar when using a more restricted pooled regression model, while the next section presents quantitative evidence on how have the determinants of affiliation evolved over time between 2005 and 2015.

[9] With this approach, the coefficient and endowment components are different from zero also for the values of categorical variables that are selected as the reference group. For this reason, we have also reported the sum of the coefficient and endowment effects associated with the reference groups of categorical variables.

[10] The descriptive statistics of Figure 2 did not show an evident difference in the decline of affiliation between large and small firms. However, using the Oaxaca approach, the role of firm size is estimated conditioning on other observable characteristics, such as productivity, sector and location. Moreover, in this model, size enters as a continuous variable, rather than a categorical one.

[11] A good overview of the extensive literature on the relationship between trade unions and wages that followed since the seminal contribution by Freeman is provided by Card et al. (2004).

[12] Data on contractual wages were derived from a hand-collected database on virtually all most relevant Italian collective agreements, while minor contracts that have a dubious legal validity for what concerns wage setting dispositions were not covered. A detailed discussion of the characteristics of contractual wage data is provided by Fanfani (2022).

[13] The association between contractual wages and firms' productivity has also been studied by Card and Cardoso (2022) for Portugal, which show a positive and significant association between average value added per worker of covered firms and contractual wage growth.

[14] Notice that the outcome of the regression model is expressed in nominal terms, as employers' associations bargain over a nominal contractual wage level. The fact that the coefficient associated with the CPI is greater than 1 in

our model implies that nominal contractual wages have grown faster than inflation period of our study. This is a finding also documented by Fanfani (2022). The period of our study has been characterized by a generally flat growth of prices, while wage negotiations in most collective contracts have set a quite steady pace of growth at around 2 per cent per year.

REFERENCES

Abowd, J.A. & Lemieux, T. (1993) The effects of product market competition on collective bargaining agreements: the case of foreign competition in Canada. *Quarterly Journal of Economics*, 108(4), 983–1014.

Avouyi-Dovi, S., Fougère, D. & Gautier, E. (2013) Wage rigidity, collective bargaining, and the minimum wage: evidence from French Agreement Data. *Review of Economics and Statistics*, 95(4), 1337–1351.

Behrens, M. (2017) Structure and competing logics: the art of shaping interests within German employers' associations. *Socio-Economic Review*, 16(4), 769–789.

Behrens, M. & Helfen, M. (2016) The foundations of social partnership. *British Journal of Industrial Relations*, 54(2), 334–357.

Bhuller, M., Moene, K.O., Mogstad, M. & Vestad, O.L. (2022) Facts and fantasies about wage setting and collective bargaining. *Journal of Economic Perspectives*, 36(4), 29–52.

Bosch, G. (2018) The making of the German minimum wage: a case study of institutional change. *Industrial Relations Journal*, 49(1), 19–33.

Brandl, B. & Lehr, A. (2019) The strange non-death of employer and business associations: an analysis of their representativeness and activities in Western European countries. *Economic and Industrial Democracy*, 40(4), 932–953.

Caponetti, B. (2018) La rappresentanza datoriale: questioni e prospettive. *Labour & Law Issues*, 4(2), 36–59.

Card, D. & Cardoso, A.R. (2022) Wage flexibility under sectoral bargaining. *Journal of the European Economic Association*, 20(5), 2013–2061.

Card, D., Lemieux, T. & Riddell, W.C. (2004) Unions and wage inequality. *Journal of Labor Research*, 25(4), 519–559.

Cardullo, G., Conti, M. & Sulis, G. (2020) A model of unions, two-tier bargaining and capital investment. *Labour Economics*, 67, 101936.

Christofides, L.N. (1985) The impact of controls on wage contract duration. *Economic Journal*, 95(377), 161–168.

Christofides, L.N. (1987) Wage adjustment in contracts containing cost-of-living allowance clauses. *Review of Economics and Statistics*, 69(3), 531–536.

Christofides, L.N. (1990) The Interaction between Indexation, Contract Duration and Non-Contingent Wage Adjustment. *Economica*, 57(227), 395–409.

Demougin, P., Gooberman, L., Hauptmeier, M. & Heery, E. (2019) Employer organisations transformed. *Human Resource Management Journal*, 29(1), 1–16.

Duncan, O.D. & Duncan, B. (1955) A methodological analysis of segregation indexes. *American Sociological Review*, 20(2), 210–217.

Fanfani, B. (2022) The employment effects of collective wage bargaining. *LABORatorio Revelli*.

Forlivesi, M. (2018) La rappresentatività datoriale: funzioni, modelli, indici di accertamento. *Lavoro e diritto*, 32(3), 521–544.

Fougère, D., Gautier, E. & Roux, S. (2018) Wage floor rigidity in industry-level agreements: evidence from France. *Labour Economics*, 55, 72–97.

Freeman, R. & Medoff, J. (1984) What do unions do. *N.Y. Basic Books*.

Gooberman, L., Hauptmeier, M. & Heery, E. (2019) The decline of employers' associations in the UK, 1976–2014. *Journal of Industrial Relations*, 61(1), 11–32.

Haucap, J., Pauly, U. & Wey, C. (2001) Collective wage setting when wages are generally binding: an antitrust perspective. *International Review of Law and Economics*, 21(3), 287–307.

Jäger, S., Schoefer, B. & Heining, J. (2021) Labor in the boardroom. *Quarterly Journal of Economics*, 136(2), 669–725.

Jann, B. (2008) The Blinder–Oaxaca decomposition for linear regression models. *Stata Journal*, 8(4), 453–479.

Jirjahn, U. (2022) Membership in employers' associations and collective bargaining coverage in Germany. *Economic and Industrial Democracy*, 0(0). https://doi.org/10.1177/0143831X221092484

Katz, H.C. (1993) The decentralization of collective bargaining: a literature review and comparative analysis. *Industrial and Labour Relations Review*, 47(1), 3–22.

Martinez Matute, M. & Martins, P. (2022) How representative are social partners in Europe? The role of dissimilarity. *LABOUR*, 36(4), 424–444.

Martins, P.S. (2020) What do employers' associations do? 13705, IZA Discussion Paper.

Martins, P.S. (2021) *Measuring what social partners do about wages over the business cycle*. Cham: Springer International Publishing.

Martins, P.S. & Thomas, J. (2023) Employers' associations, worker mobility, and training. *Nova SBE Working Paper Series*.

Matano, A., Naticchioni, P. & Vona, F. (2022) The institutional wage adjustment to import competition: evidence from the Italian collective bargaining system. *Oxford Economic Papers*.

OECD. (2018) The role of collective bargaining systems for good labour market performance. *OECD Employment Outlook*.

Olson, M. (1965) *The logic of collective action: public goods and the theory of groups*. Harvard University Press.

Rosolia, A. (2015) On the response of Italian wages to the unemployment rate. Occasional paper 287, Bank of Italy.

Sheldon, P., Nacamulli, R., Paoletti, F. & Morgan, D.E. (2016) Employer association responses to the effects of bargaining decentralization in Australia and Italy: seeking explanations from organizational theory. *British Journal of Industrial Relations*, 54(1), 160–191.

Silvia, S.J. & Schroeder, W. (2007) Why are German employers associations declining? Arguments and evidence. *Comparative Political Studies*, 40(12), 1433–1459.

Yun, M.-S. (2005) A simple solution to the identification problem in detailed wage decompositions. *Economic Inquiry*, 43(4), 766–772.

How to cite this article: Fanfani, B., Lucifora, C. & Vigani, D. (2023) Employer associations in Italy: Trends and economic outcomes. *British Journal of Industrial Relations*, 1–27. https://doi.org/10.1111/bjir.12735

APPENDIX A: DATA APPENDIX

TABLE A1   Description of variables derived from the INAPP-RIL survey.

Name of the variable	Definition	Weighted mean (s.d.) or proportion			
		2005	2007	2010	2015
Affiliation status	The firm is member of an employers' association	63%	53%	44%	43%
N. employees	Number of employees in the firm	11.6 (155)	12.2 (117)	10.8 (291)	11.2 (179.2)
Revenues per worker	Revenues during previous year/N. employees	4.68 (0.96)	6.15 (2.36)	4.63 (1.35)	4.57 (1.48)
Firm-level bargaining	Firm engages in decentralized bargaining	4.9%	n.u.	n.u.	2.9%
Presence of trade union	Presence of trade unions' representatives within the firm	n.u.	n.u.	n.u.	5.1%
Applies a collective contract	The firm applies a collective contract	n.u.	n.u.	n.u.	77.6%
Access fiscal incentives	The firm has benefited from a fiscal incentive on investments, innovation or R&D during the last 3 years	n.u.	n.u.	n.u.	4.8%
Innovative firm	The firm has adopted an innovation in product or processes during the previous 3 years	53%	n.u.	n.u.	33%
Provides training	The firm has provided training activities to employees during the previous year	22%	n.u.	n.u.	33%
Export oriented	The firm exports all or part of its products	22%	n.u.	n.u.	16%
Not incorporated	The firm is an unincorporated business	53%	n.u.	n.u.	37%
Geographic dummy variables	Up to 20 Italian regions				
Sector dummy variables	Up to 12 industries				

Note: n.u. 'stands for not used in the analysis'. Reasons for not using the variables listed are either differences in the questionnaire across waves or model selection. Descriptives reported in other parts of the article may differ due to the omission of all observations with at least one missing value in the context of regression analyses.

TABLE A2   Descriptive statistics on the aggregated INAPP-RIL contractual wage data.

Variable	Mean	St. dev.
Ln avg. contractual wage	7.319	0.149
Yearly growth rate of contractual wages	0.025	0.004
Share of affiliated firms	0.614	0.169
Share of workers in affiliated firms	0.776	0.146
CPI (1=2015)	0.919	0.057
Ln contract employment	12.63	1.554
Ln avg. firm size	1.939	0.674
Ln avg. revenues per worker	4.770	0.828
Share second-level barg.	0.089	0.097
Share exporters	0.231	0.178
Share manufacturing	0.300	0.331
Share services	0.555	0.390
Share primary/energy	0.012	0.073
Share constructions	0.133	0.247
Share North-West	0.319	0.099
Share North-East	0.242	0.086
Share Centre	0.236	0.096
Share South	0.202	0.096
N. of collective contracts	148	
Observations	431	

Note: Descriptive statistics computed on the aggregated database constructed from the pooled waves of the INAPP-RIL database matched to the contractual wage data. Each observation represents a collective contract–year pair. Contractual wages are hand-collected from collective contracts. The CPI index is taken from the Italian National Statistical Agency (ISTAT). All other variables are computed for each contract–year pair from the INAPP-RIL survey using sampling weights. The years included in the sample are 2005, 2007, 2010 and 2015. Observations for which some variables contain missing values are dropped. Descriptive statistics are weighted by the number of employees in the contract–year pair.

TABLE A3 Descriptive statistics on the disaggregated INAPP-RIL contractual wage data.

Variable	Mean	St. dev.
Ln avg. contractual wage	7.348	0.154
Yearly growth rate of contractual wages	0.025	0.004
% affiliated firms	66.0%	
CPI (1=2015)	0.946	0.053
Ln firm size	2.666	1.533
Ln revenues per worker	3.014	3.364
% second-level barg.	13.7%	
% exporters	27.7%	
% manufacturing	37.8%	
% services	43.4%	
% primary/energy	4.8%	
% constructions	14%	
% North-West	30.6%	
% North-East	26.7%	
% Centre	23.1%	
% South	19.6%	
N. of collective contracts	148	
Observations	38,500	

Note: Descriptive statistics computed on the disaggregated database constructed from the pooled waves of the INAPP-RIL database matched to the contractual wage data. Each observation represents a firm matched to a collective contract in a given year. Contractual wages are hand-collected from collective contracts. The CPI index is taken from the Italian National Statistical Agency (ISTAT). The years included in the sample are 2005, 2007, 2010 and 2015. Observations for which some variables contain missing values are dropped.