Chapter 4
The crisis and labour market reform in Italy: a regional analysis of the Jobs Act

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1. Introduction

The crisis that struck in 2008 has led to the development of a process of 'dual polarisation' in Europe. On the one hand, divergence has grown between the economies of the 'centre' – in particular, Germany and the Member States in its productive network – and the 'periphery' of the EU – particularly the economies of the Mediterranean area – with the former conserving and, in some cases, increasing their productive capacity and the latter, in contrast, suffering considerable setbacks both in terms of production and employment. On the other hand, divergence between regions within individual European economies has also increased. This phenomenon has affected the peripheral economies in particular, including those already characterised by strong regional differences such as Italy (on this question, see the analyses by Mazzucato *et al.* 2015; Cirillo and Guarascio 2014, 2015; Guarascio and Simonazzi 2016; Dosi and Guarascio 2016; Sedezzari 2014; Lucchese *et al.* 2016). In Italy, where there was a generalised reduction in productive capacity and a significant rise in unemployment nationally, the decline observed in the southern regions was greater than in the rest of the economy.

In this context of 'dual polarisation', the response to the crisis in terms of economic policy has also seen a qualitative polarisation between the centre and the periphery of the EU. The centre has protected its competitive capacity by adopting strategies based on innovation and product quality (Mazzucato *et al.* 2015). The peripheral economies, in contrast, have responded to the crisis by adopting a 'price competitiveness' strategy based mainly on labour flexibility and cost reduction.[1]

The strategy pursued in the periphery to close the competitive gap with the economies of the centre – based, as stated, on cost reduction and, more particularly, on the reduction of labour costs – was supported by the adoption of a series of 'structural reforms'. In the case of Italy, the most important measures focusing on the labour market have been the 'Fornero Reform' and the 'Jobs Act', implemented in 2012 and 2015 respectively. Both of these measures have made it easier for companies to dismiss workers, generally reducing their bargaining power (Fana *et al.* 2016).

Law No 183/2014, the Jobs Act, radically altered the previous rules governing dismissal. Implementation of the law was also accompanied by the introduction of fiscal incentives – in the form of exemptions from social contributions awarded to companies for newly-

1. For details of Italian companies that, unlike the majority, pursued internationalisation strategies based on innovation and the utilisation of territorial 'capabilities', see Barzotto *et al.* 2014.

employed workers or for conversions of existing contracts – aimed at spreading the new type of contract introduced by the Jobs Act (i.e. the 'increasing protection contract', as detailed in Section 4). Furthermore, the Jobs Act definitively liberalised the use of flexible forms of contract such as the *fixed-term contract* and non-contract forms such as *payment vouchers*; it also allowed for the remote monitoring of workers using electronic devices and the possibility of demotion of workers by companies.[2]

As stressed by Fana *et al.* (2016), the Jobs Act and other measures aimed at rendering the labour market more flexible – like the incentives for decentralised bargaining funded under the 2015 Stability Law – were adopted with two main aims: i) to bring down the level of unemployment, which had risen sharply following the crisis (short-term goal); and ii) to strengthen the country's productive capacity, reducing the gap with the economies of the centre (medium- to long-term goal).

Building on the analysis performed by Fana *et al.* (2016), the present work aims to explore labour market trends in Italy following the introduction of the Jobs Act, paying particular attention to the regional dimension. Before examining this regional aspect, the macroeconomic and structural effects of the crisis that struck in 2008 will be presented. Regional analysis of employment is particularly important since the structural weaknesses of the Italian economy – stagnant productivity, persistent youth and female unemployment and widespread lack of job security – affect the southern regions to a greater degree.

Descriptive analysis is performed using two main sources: the labour force survey (LFS) by the National Statistics Institute (ISTAT); and administrative data on new and terminated employment contracts and their types provided by the National Social Welfare Institute (INPS).

The chapter is organised as follows. Section 2 describes the impact of the crisis on the Italian economy, distinguishing between the regions of the north and south and underlining the process of dual polarisation occurring. Section 3 summarises the main contents of the Jobs Act and analyses national employment trends in the period following the implementation of the law. Section 4 describes the same trends at regional level in the same period, while Section 5 concludes by discussing the main points emerging in the analysis.

2. The process of dual polarisation

The crisis that struck in 2008 has severely affected the Italian economy, with a significant impact on both employment and production. Between 2008 and 2015, Italian manufacturing productive capacity contracted by about 20%, highlighting the risk of long-term effects (Mazzucato *et al.* 2015; Cirillo and Guarascio 2015). Table 1 shows

2. A detailed description of the Jobs Act and a preliminary analysis of the labour market trends observed after its introduction is provided in Fana *et al.* (2016).

the trend in the production of final and intermediate goods and total manufacturing production for the years 2008, 2012 and 2015.

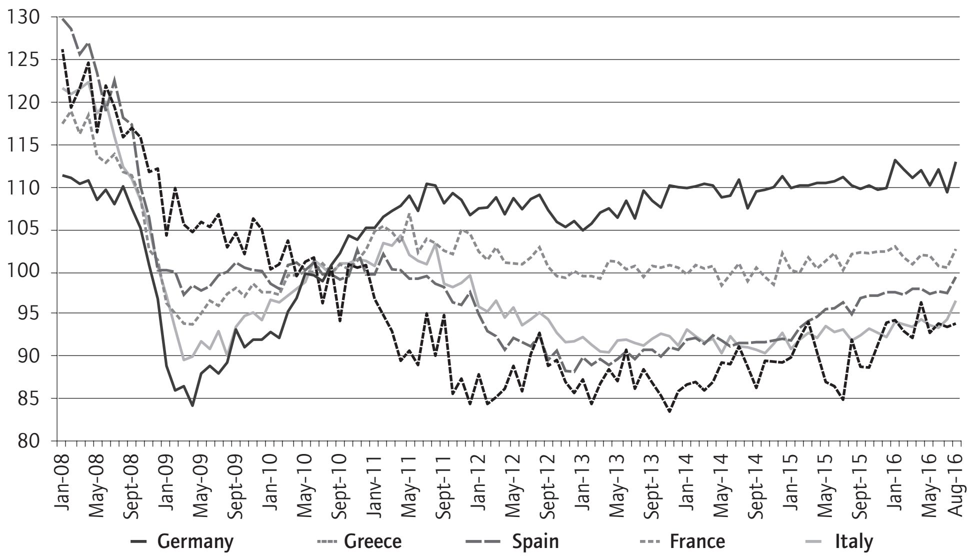
Table 1 **Industrial production index in Italy**

	2008	2012	2015
Final goods	105.8	94.0	91.7
Intermediate goods	122.4	92.1	89.9
Total production	115.8	94.6	92.8

(2010=100)
Source: Eurostat

These data highlight the dramatic contraction in Italian industrial production during this period. A similar trend may be observed in all the economies in the Mediterranean area of the EU – Spain, Portugal and Greece. In contrast, the 'centre' – Germany and the network of countries linked to it, such as the Czech Republic, Poland, Slovakia and Hungary – managed to contain the effects of the crisis and, in some cases, to increase productive capacity.[3] Figure 1 shows that Italy and the other peripheral economies remained persistently below that of Germany and France in terms of industrial production.

Figure 1 **Industrial Production Index 2008-2016**

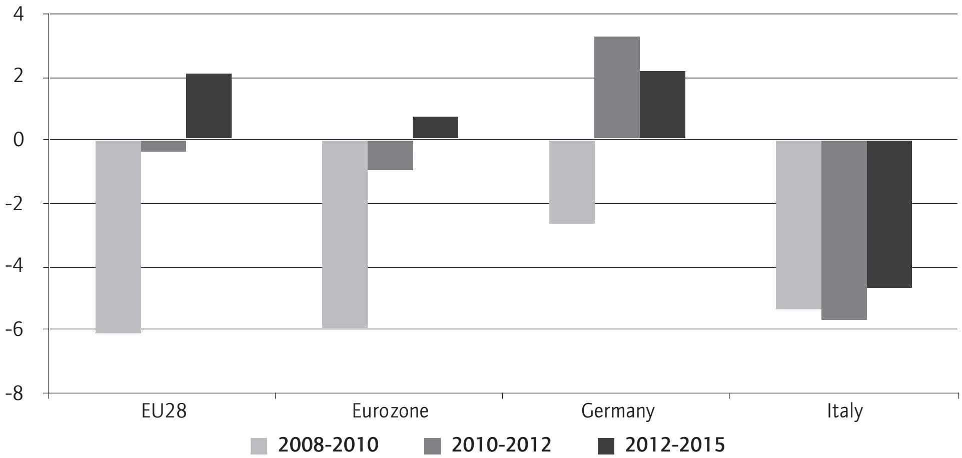


(GER, FR, IT, SP and GR, 2010=100)
Source: Eurostat

3. Divergence between the centre and the periphery of the EU was caused by a combination of factors. A detailed description of diverging trends in Europe is given in Simonazzi *et al*. 2013, Cirillo and Guarascio 2015, and Ginzburg and Simonazzi 2016.

In particular, after the collapse in industrial production that affected all of the Eurozone economies from 2008, a recovery in production in Germany – and to a lesser extent in France – may be observed from April 2009. In contrast, the downward trend continued in Italy, Spain and Greece, with a persistent contraction in industrial manufacturing production throughout the period with the exception of Spain, which shows weak signs of recovery from 2015. The latest available data (August 2016, Figure 1) shows, on the one hand, that Germany is the only Eurozone country to have regained its pre-crisis levels of industrial production; and, on the other, that divergence between Germany and the countries of the Mediterranean area persisted throughout the period under consideration.

Figure 2 **Total investment. Average annual change (2008-2015)**



Note: at constant prices (2010=100)
Source: Eurostat

A similar trend to that shown in Figure 1 emerges for total investment in Italy, Germany, France, the Eurozone and the EU (Figure 2). A significant contraction of aggregate investment can be seen for Italy in each of the periods analysed (2008-2010, 2010-2012 and 2012-2015). From this point of view, the Italian economy differs not only from the German economy – which contracted only in the period 2008-2010 – but also from the Eurozone and the EU. This divergence highlights a specific fragility of the Italian economy which, as has been argued, is partly due to the accentuated territorial duality between north and south (Svimez 2015).

In relation to employment trends, the Italian employment rate has fallen considerably since 2008 while unemployment has risen. Employment declined from 62.9per cent in 2008 to 60.5 per cent in 2015 while the corresponding rate remained almost unchanged for the EU, going from 70.3 per cent to 70.1 per cent. In the same period, the Italian unemployment rate grew by five percentage points – from 6.7 per cent to 11.9 per cent – with the EU rate rising only two percentage points – from 7.0 per cent to 9.4 per cent.

Furthermore, the Italian youth unemployment rate has remained consistently above the European average since 2008. In 2008, Italian youth unemployment stood at 21.2 per cent while the EU figure was 15.6 per cent; in 2015, this rate had risen to 40.3 per cent in Italy and 20.4 per cent in the EU. In 2014, almost 100 000 graduates and highly-skilled workers left Italy.[4]

2.1 Polarisation between northern and southern regions

The most recent Svimez report (2015) highlighted that the economic crisis has further accentuated the polarisation between Italy's northern and southern regions. Between 2008 and 2014, the manufacturing value added generated in the regions of the south of Italy fell by 33.1 per cent compared to a figure of -14.2 per cent in the north.

In 2015, when average GDP growth stood at 0.8 per cent nationally, the growth figure for the south was 0.1 per cent. Brancati (2015) underlines that this negative trend was closely linked to the weakness in aggregate demand that affected the regions of the south in particular. Household consumption expenditure in the southern regions fell 13 per cent between 2008 and 2014 – almost double the rate for the rest of the country (5.5 per cent). Furthermore, during the crisis period the decline in investment experienced throughout the country was strongest in the south of Italy, reaching 38.1 per cent for the 2008-2014 period. The fall in productive investment in the southern regions was felt across all sectors and in manufacturing in particular (59.3 per cent). About 576 000 jobs have been lost since the beginning of the crisis in the south, with knock-on effects on medium- to long-term growth prospects (Svimez 2015).

The decline in industrial production was, as already stated, much more severe and widespread in the south, generating structural effects. The length of the recession, the reduction of resources for public infrastructure and the fall in internal demand were all factors contributing to a notable weakening of the economic and productive system in the area. This inevitably contributed to accentuating the gap between the Italian regions.

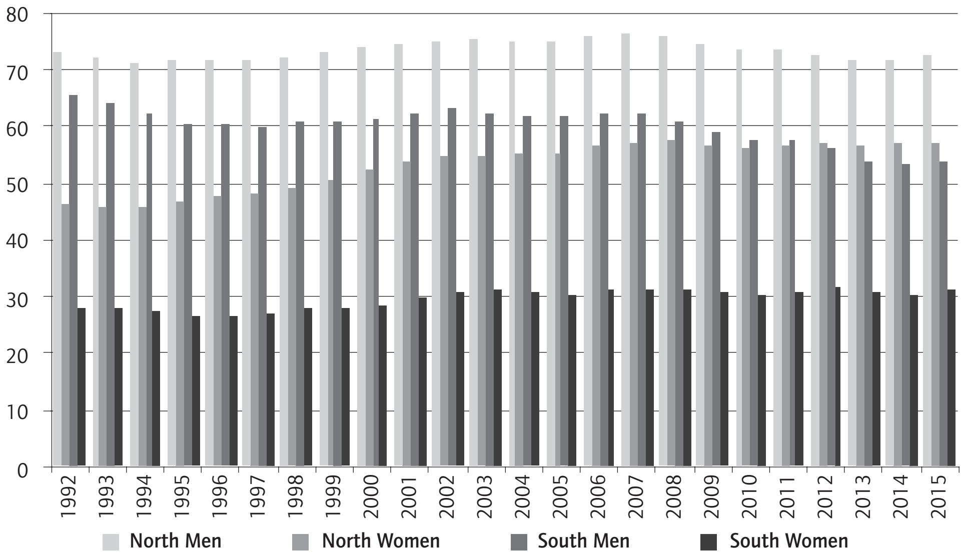
Such divergence reflects the greater dependence on the domestic market in the south and the weakness of southern companies in international value chains (Bronzini *et al.* 2013). In fact, the south is still home to a certain number of manufacturing companies operating in medium-to high-technology sectors, but there remains a chronic shortage of companies capable of providing intermediate and investment goods.

Bronzini *et al.* (2013) show how the relatively lower density of value chains renders the south strongly dependent on external markets – and in particular the northern regions – for the acquisition of intermediate goods and key productive inputs. Furthermore, the authors show how companies situated in the southern regions show persistent weakness in their contractual relations with their northern counterparts. The absence of sufficiently-structured value chains in the south also weakens the link between potential

4. Source: ISTAT Register of Italian citizens living abroad.

growth in demand and consequent positive effects on production (and employment) in the geographical area.

Figure 3 **Employment rate by gender and macro region. Trends by gender and macro region (2008-2015)**



Source: calculated from Eurostat data

Labour market dynamics in the south are characterised by a series of structural weaknesses, three of which may be identified as of prime importance: i) persistent unemployment; ii) low female and youth employment; iii) lack of job security. We noted above, with regard to other structural data, that the southern regions are affected more strongly by such problems than the rest of the Italian economy. These regions had shown an improvement – in particular with regard to female and youth employment – from the second half of the 1990s, but this was halted by the crisis (Pini 2015; Fana *et al*. 2016). Figure 3 shows the employment trends for men and women by macro-region, underlining the polarisation between northern and southern Italy. The data show how the south performed much worse than the north in these areas of employment over a period of more than two decades (1992-2015). This is particularly true of female employment, as shown by Fana *et al*. (2016).

3. The Jobs Act

Law No. 183/2014 – the Jobs Act – is one of the keystones of the range of economic polices launched in Italy in response to the crisis (Fana *et al*. 2016). The aim of the law is to reverse the trend of growing unemployment and to reduce the amount of insecure and temporary employment.[5]

5. On the insider-outsider trend for the Italian labour market, see Marra and Turcio (2016).

The Jobs Act also brought about a profound change in the system of industrial relations in Italy. Its introduction completed the process of the liberalisation of the Italian labour market that started around the mid-1990s. The main features of Law No. 183/2014 are as follows:

— *Introduction of the 'increasing protection contract'*. The increasing protection contract replaces – for newly-employed workers and conversions of other types of contract – the permanent contract in existence since 1970.[6] The increasing protection contract does not provide for reinstatement in the case of dismissal without just cause, except in cases of discriminatory or verbally communicated dismissal. The right to reinstatement is replaced by an obligation on the part of companies to compensate workers for an amount equal to two months' salary per year worked, with minimum compensation set at four months' pay.[7] The Jobs Act therefore abolishes 'real protection' – the right to reinstatement – as introduced by Article 18 of Law No. 300/1970, the 'Workers' Statute'. At the same time, recourse to court proceedings by workers is disincentivised, since this would result in lower compensation than available through extra-judicial settlements.

— *Fixed-term contracts*. The Jobs Act removes the right of workers to convert from fixed-term to permanent contracts where a company exceeds its limit for fixed-term contracts, set at 20% of the overall workforce prior to the introduction of the Jobs Act. Furthermore, the Jobs Act also changes the rules for the compensation of workers on fixed contracts where such limits are breached, requiring that compensation be paid to the tax authorities rather than to the worker.[8]

— *Vouchers*. Vouchers – introduced by the Biagi Law of 2003 and extended to all sectors by the Fornero Law – are a non-contractual instrument used as a means of payment for occasional ancillary work, with net hourly pay set at EUR 7.50 and without welfare contributions (sickness, maternity, holiday, etc.). The Jobs Act increased the annual income ceiling for workers paid using vouchers from EUR 5 000 to EUR 7 000.

The introduction of the new increasing protection contract followed the adoption (under the 2015 Stability Law) of incentives in the form of exemptions from social security contributions for companies offering permanent contracts to new workers or converting existing contracts. These incentives – expressly aimed at spreading the new forms of contract introduced under the Jobs Act but introduced by an autonomous measure prior to the Jobs Act itself – are crucial for understanding contractual trends during 2015 (see on this point Sestito and Viviano 2016 and Fana *et al.* 2016). Specifically, for each permanent contract stipulated in 2015 (for both new contracts and conversions

6. A change to the basis of the permanent contract – i.e. a weakening of real protection, or the right to reinstatement of workers dismissed without just cause or a justified objective reason – was carried out by the Monti government in 2012.

7. In the case of companies with fewer than 15 employees – who did not enjoy the right to reinstatement even prior to the Jobs Act – compensation is halved.

8. Current regulations have resulted in a significant reduction in the costs of fixed-term contracts for companies: the Poletti Decree, approved in May 2014 by the same government, removes the substantive requirements for the use of this type of contract.

of existing fixed-term contracts), companies were entitled to an exemption from social contributions for three years, up to a maximum of EUR 8 060 per worker per year.

Traditionally, employment incentives were used to encourage the employment of vulnerable categories of worker – the long-term unemployed, young people, people with disabilities and women – and to stimulate employment in southern regions or in technology-intensive sectors. Unlike previous measures, however, the Jobs Act provides exemptions on contributions without any form of conditionality connected to the type of worker or company – except as regards the requirement for converting workers who have been employed on a fixed-term contract in the previous six months. From this point of view, the choice to provide incentives with no conditionality regarding the location of companies seems out of step with the situation highlighted in the previous section, given the marked polarisation between the regions. Secondly, the lack of conditionalities connected to the type of worker employed seems to conflict with the need – seen in the evidence presented above – to stimulate the inclusion of vulnerable categories of worker such as women and the young. Finally, the absence of conditionalities regarding the productive sector or the level of investment in physical capital or R&D by beneficiary companies might prove to be counterproductive given the need to reverse the process of the regression of the Italian productive system already underlined in Gallino (2003), Cirillo and Guarascio (2015) and Guarascio and Simonazzi (2016).[9]

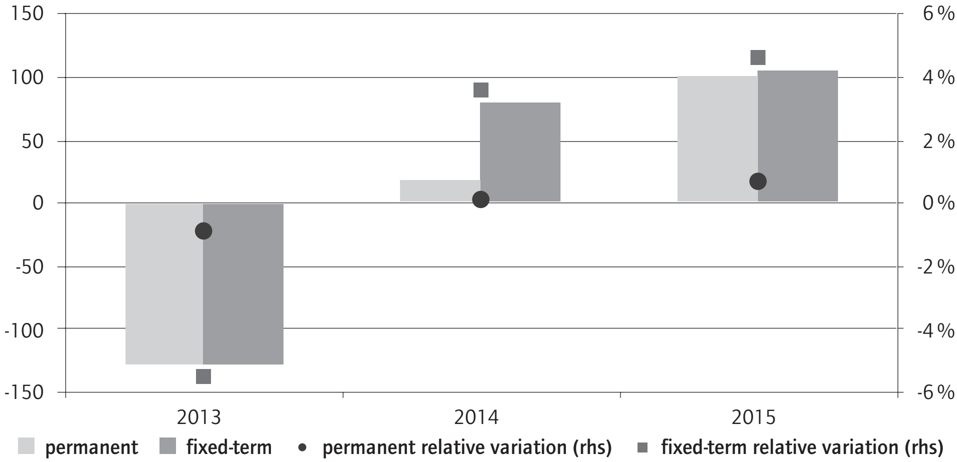
Before examining labour market trends at regional level, a brief summary will be given of the assessment by Fana *et al.* (2016) of the impact of the Jobs Act nationally, in relation to its main stated aims of increasing and consolidating overall employment while reducing temporary contracts and encouraging youth and female employment. Fana *et al.* (2016) analyse the impact of the Jobs Act and the contributions exemptions on employment and, in particular, on permanent contracts. Furthermore, the trend for fixed-term contracts as a percentage of all employment contracts since the introduction of the Jobs Act is also examined.

The analysis highlights, on the one hand, the failure of the Jobs Act to provide significant stimulus to overall employment trends, while underlining the close dependence of employment on the provision of fiscal incentives (Sestito and Viviano 2016); it also notes that the Jobs Act is incapable of encouraging a reduction in recourse to temporary work and to atypical instruments of a contractual or, in the case of vouchers, non-contractual nature. At national level, ISTAT data show that there was an increase in the overall number of people employed between 2014 and 2015 of 183 000, with increases in permanent contracts of 112 000 and in fixed-term contracts of 100 000, accompanied by a 29 000 reduction in the stock of self-employed workers. Despite the increase in absolute terms in permanent contracts being slightly higher than the increase in fixed-term contracts, a relative assessment – taking as its reference point the total number of those employed in each category in the previous year – shows a significantly greater increase in fixed-term contracts (Figure 4). It should, however, be noted that, in 2015, the annual variation in the number of those in employment was greater than in 2014

9. An analysis of the impacts of structural and technological change on Italian employment trends was recently provided in Fadda (2016).

(relative to 2013). In relative terms, however, the growth rate was small and below that for fixed-rate contracts. In 2015, furthermore, the share of fixed-term contracts reached an all-time high, at 14 per cent of all employed workers.[10]

Figure 4 **Annual variation in absolute (in thousands) and relative terms of the stock of workers on permanent and fixed-term contracts (2013-2015)**



Source: calculated from ISTAT

Employment trends, broken down by type of contract – both in absolute and in relative terms – can be further analysed using the administrative data provided by the INPS's 'Observatory of job insecurity'. The data provided by the INPS show that there were 186 376 new permanent contracts stipulated in 2015 (net of relevant terminations) – one-third of the overall total of net contracts stipulated in that year. However, if fixed-term contracts converted to permanent contracts are added to new contracts, the proportion of permanent contracts increases significantly.

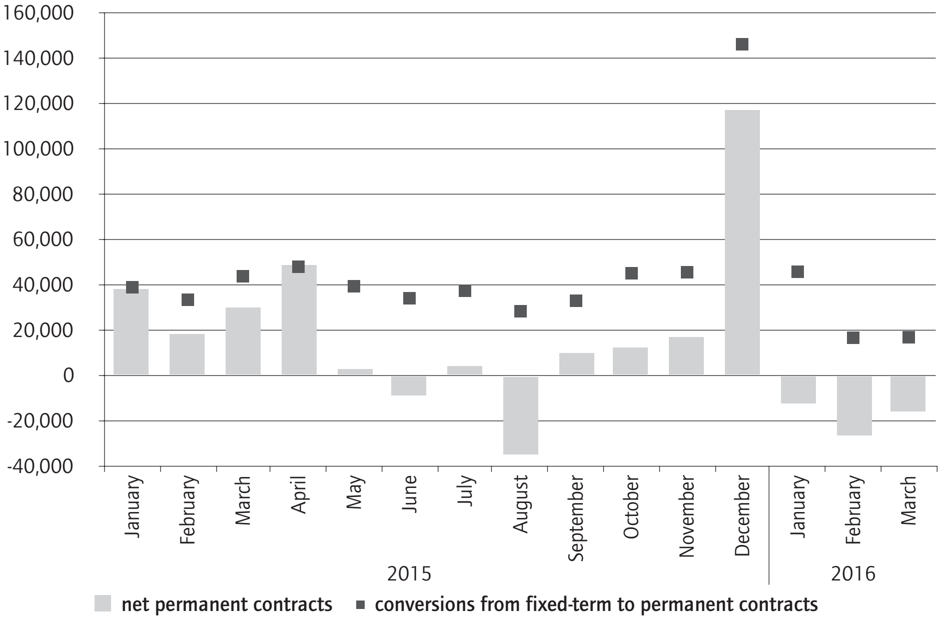
Figure 5 shows that the trends in permanent contracts are being mainly driven by conversions. Furthermore, the strong increase in permanent contracts observed in December, and the subsequent and sudden fall-off from January 2016, seem to confirm the key role played by the incentives in stimulating the trend (this hypothesis was first suggested in Fana *et al.* 2016 and confirmed, from an econometric point of view, by Sestito and Viviano 2016).

Analysis of the trend for permanent contracts between 2014 and 2016 confirms the prevalent role played by contributions exemptions in 2015, which was evaluated in the light of the anticipated effect of the changes to the rules on dismissal. Analysis of the administrative data highlights that, once company incentives for converting existing

10. It should be noted that the ISTAT data count as employed workers those paid with vouchers, who may be classified as self-employed or fixed-term depending on the type of employment involved. This is an important detail since, for administrative purposes, the number of workers paid with vouchers rose above one million in 2015.

contracts to the new increasing protection contracts were reduced by 50% in January 2016, permanent contracts dropped below both 2015 and 2014 levels.

Figure 5 **New permanent contracts and conversions of fixed-term to permanent contracts (January 2015-March 2016)**



Source: the authors based on INPS data

Finally, in terms of hours worked, it should be noted that, in 2015, part-time contracts increased more for permanent workers than for fixed-term workers, generally on an involuntary basis. Analysis of the trend by age, on the other hand, shows that the growth in permanent contracts mainly affected the oldest categories of workers (over 55). Both these sets of data – the growth of part-time work among workers on permanent contracts and the concentration of employment among older categories of worker – seem to suggest an employment trend characterised by discontinuity and low quality (Fana *et al.* 2016).

Table 2 **Distribution of new contracts by type and hours worked. Jan-Dec 2015 (per cent)**

Type of contract	Permanent	Fixed-term	% Total
Full-time	58	64	62
Part-time	42	36	38
Total	100	100	100

Source: the authors based on INPS data

Furthermore, the distribution of contracts by type and hours worked (Table 2) shows how part-time work is more prevalent among workers employed on permanent contracts. During the second half of 2015, the percentage of involuntary part-time contracts accounted for 64.6 per cent of all part-time workers (source: ISTAT).

4. Evaluation of the Jobs Act at regional level

This section will provide a descriptive evaluation of the impact of the Jobs Act at regional level. The main statistical sources used for the analysis are:

— ISTAT (National Institute for Statistics) labour force survey (LFS) of the stock of employed, unemployed and inactive workers (and the relevant rates), broken down by age and gender. The analysis will also use data on employment trends by region and sector.

— Administrative data provided by INPS (National Social Welfare Institute) on the flows for new contracts, terminations and conversions, as well as for contract types, for employed and self-employed workers excluding domestic workers and public employees. The INPS data also contain information on the geographical spread of the use of vouchers and, more importantly for the present purposes, the number of contracts stipulated using the contributions exemptions provided for under the 2015 Stability Law.

The descriptive analysis that follows aims to analyse whether the combination of the Jobs Act and the contributions exemptions resulted in an increase in the quality and quantity of employment at regional level. Employment trends are examined to verify the extent to which the effects recorded were uniform throughout the country or whether, on the contrary, the degree of divergence noted above was accentuated by the introduction of the Jobs Act. Specifically, employment trends will be analysed with particular emphasis on permanent contracts offered by companies. Secondly, trends are examined for new permanent contracts, for conversions of existing employment relationships into permanent contracts and for atypical work, the latter mainly involving the use of vouchers.

4.1 Analysis of ISTAT–LFS data

Analysis of regional employment trends during 2015 shows substantial diversity in terms of employment performance. Lazio, Tuscany and Lombardy – followed by Sicily and Piedmont – show the largest increases in employment during the period under consideration (Figure 6).[11] In contrast, Basilicata, Trentino, Molise and Valle d'Aosta show only modest employment growth, while Apulia, Campania, Umbria and Calabria register job contraction. Focusing on permanent contracts, in Lazio, Tuscany and Lombardy the largest job growth is observed.

In the fourth quarter of 2014, there was an increase in temporary contracts in Sicily, Piedmont and Emilia-Romagna - up by 10 000.

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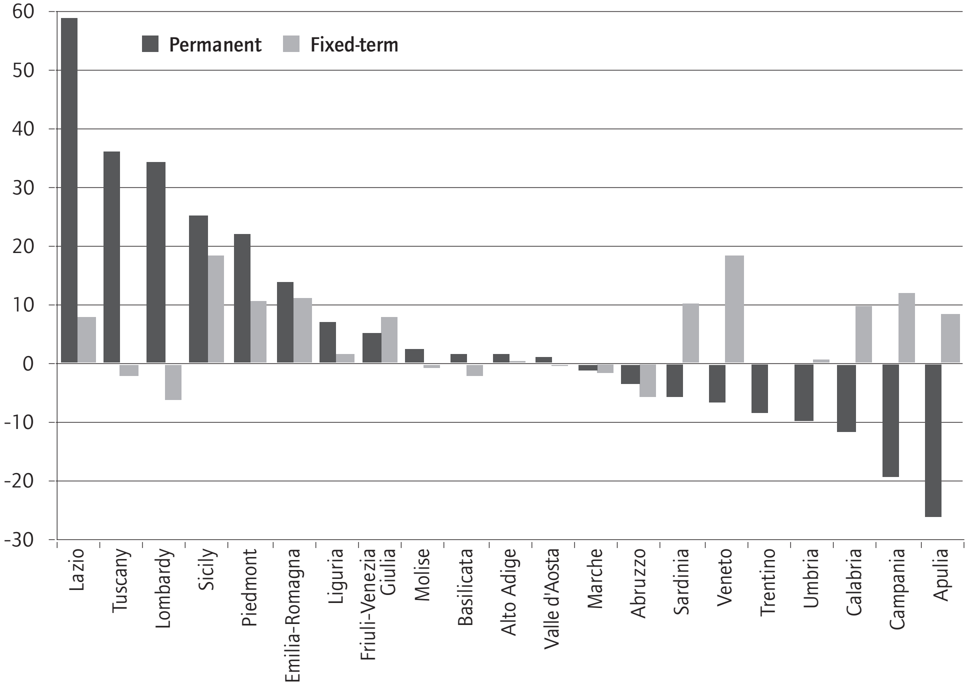
11. The variation is calculated as the difference between the data for the fourth quarter of 2015 and those for the same quarter of 2014.

Figure 6 **Variation in employment by type of contract (Q4 2014 – Q4 2015) – in thousands of units**



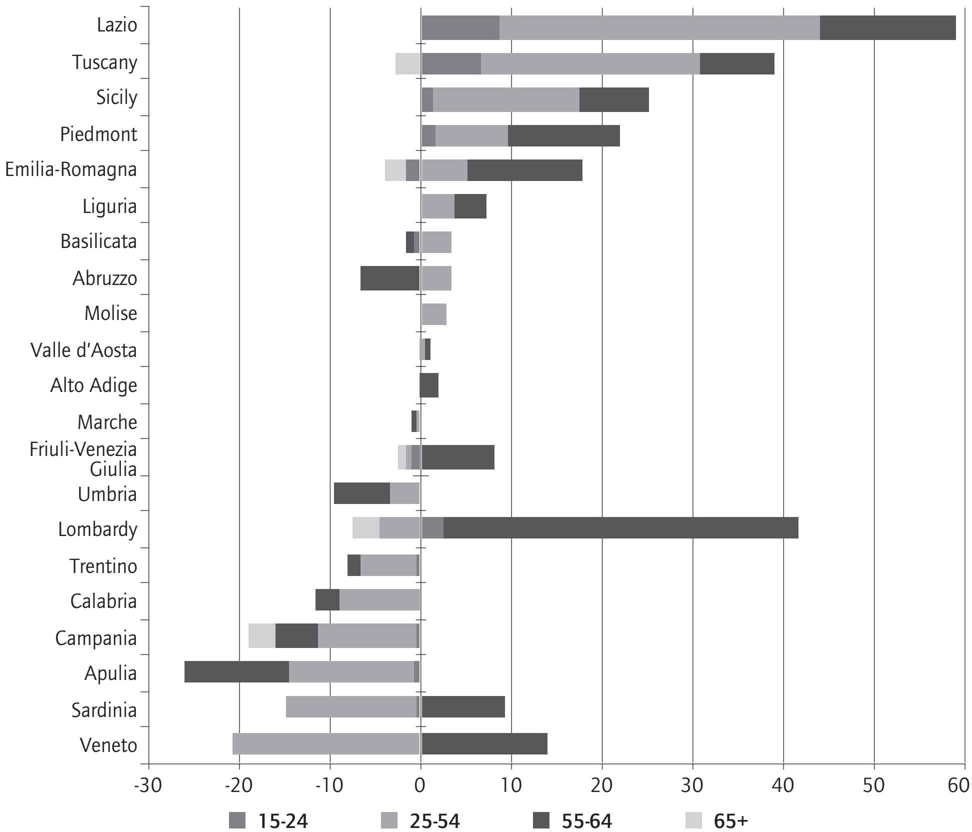
Source: the authors based on ISTAT-LFS data

In some southern regions – Apulia, Campania and Calabria – the only increase in employment was for workers on fixed-term contracts, confirming the weakness of the economic situation in the south.

The analysis of the composition by age category of the newly-employed (Figure 7) reveals that a significant proportion are aged between 55 and 64 years – especially in Lombardy, Veneto, Lazio and Emilia-Romagna. In the regions where employment fell, the age category most affected was that of workers aged 25 to 54 years – in Apulia, Abruzzo and Marche. The weak employment figures for younger categories of workers once again highlight the structural weaknesses of the Italian economy, the south in particular. The south seems unable to take advantage of its younger labour resources, reflecting a persistent weakness in the productive system. Furthermore, the analysis of trends for new employees shows that a significant proportion of new employees are aged over 55, in particular in Lombardy, Veneto, Tuscany and Lazio, in other words the regions recording positive employment trends compared to the fourth quarter of 2014 – confirming the findings of Fana *et al*. (2016).

Turning to quality of employment, the analysis of trends for professional workers at the macro-category level (Figure 8) reveals that, among new permanent workers, the share of high-skilled workers – managers, professionals and technicians – is highest in Lombardy and Veneto, while it is more modest in Sardinia, Sicily and Tuscany.

Figure 7 **Variation in permanent employment by age category (Q4 2014 – Q4 2015) – in thousands of units**



Source: calculated from ISTAT-LFS data

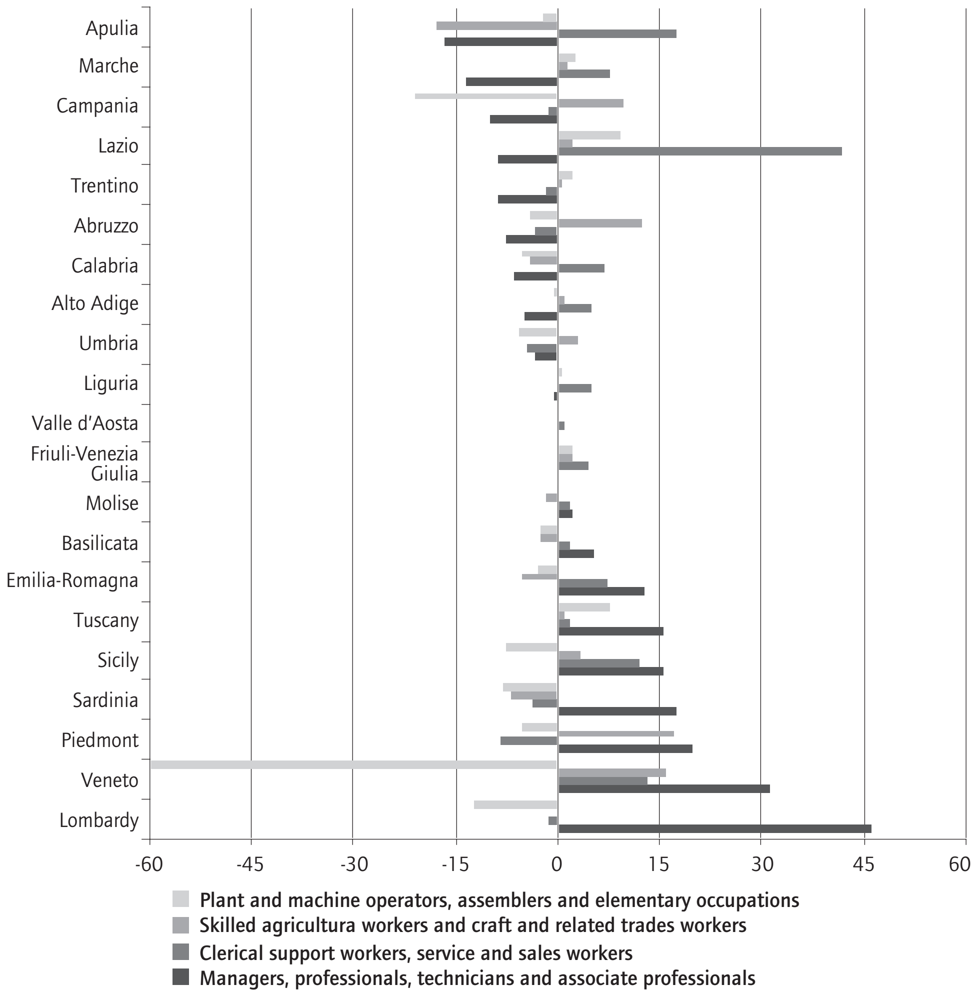
Lazio, Tuscany and Marche, on the other hand, recorded a year-on-year increase in so-called low-skilled workers –plant and machine operators, assemblers and elementary occupations. Unlike Lombardy and Veneto, therefore, where new permanent workers tend to be high-skilled, in Sicily, Piedmont and Lazio new employment mainly involved medium- or low-skilled workers.

Finally, the regional employment trend is combined with sectoral analysis, grouping industries on the basis of the taxonomy established by Pavitt (1984), as adapted by Bogliacino and Pianta (2016).

The use of the classification proposed by Bogliacino and Pianta (2015) allows the various productive sectors to be identified based on relative technological intensity measured in relation to R&D spending and the sources of innovation used at company level.[12]

12. A detailed list of Pavitt sectors according to technological grouping is presented in the Appendix.

Figure 8 **Variation in permanent employment by professional category (Q4 2014 – Q4 2015) – in thousands of units**

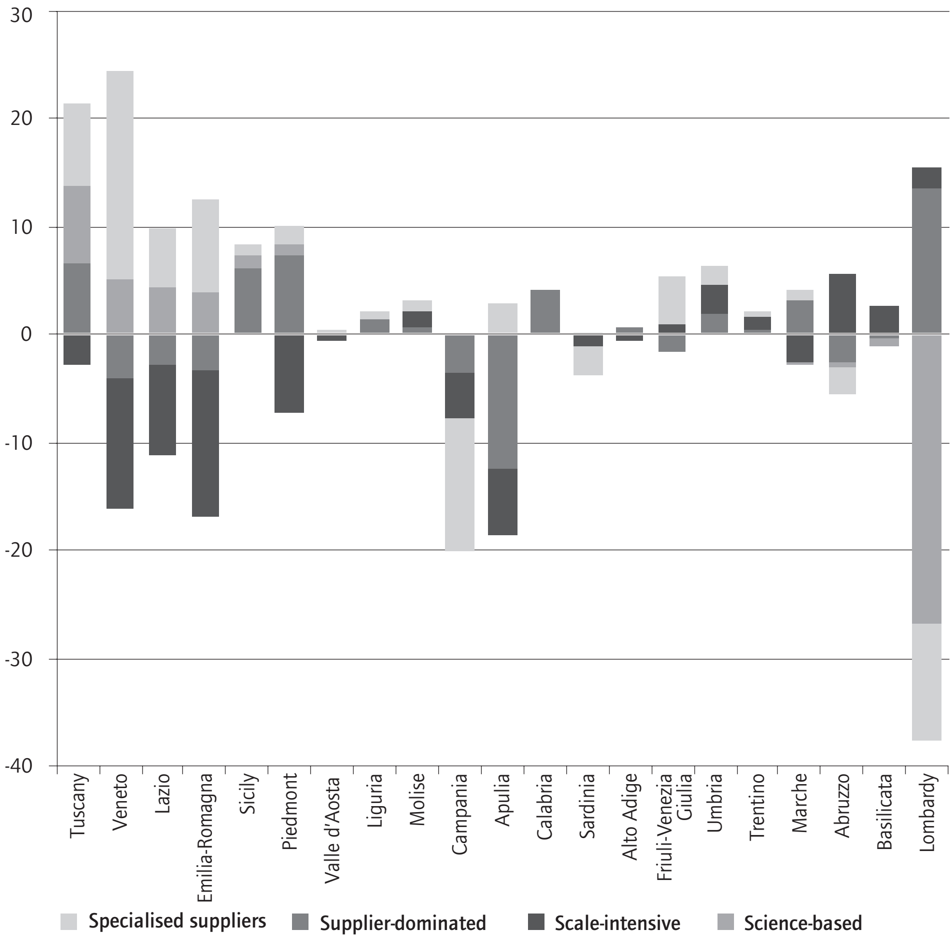


Source: calculated from ISTAT-LFS data

In this way, it is possible to assess whether employment trends in the Italian regions after the introduction of the Jobs Act resulted in a strengthening of high-technology sectors or whether, on the contrary, growth affected the lower-technology sectors (in relative terms). Figures 9 and 10 show the evolution of employment by Pavitt category, broken down into manufacturing and services. The employment trend observed in the manufacturing sector (Figure 9) shows a reduction in employment in the 'science-based' sectors, with the sole exceptions of Tuscany, Veneto, Lazio and Emilia-Romagna.

A significant reduction in the number of those in work in the 'science-based' class is observed in Lombardy. This is of particular importance since Lombardy, as indicated above, was one of the regions showing the largest increase in the number of permanent workers in 2015. This would seem to suggest, once again, that the increase in employment recorded in 2015 was concentrated in low-technology sectors. In general terms, growth tended to affect the 'supplier-dominated' sectors in 2015 – especially in Lombardy, Piedmont, Sicily and Tuscany – followed by the 'specialised suppliers' sectors. Veneto, Emilia-Romagna, Lazio and Tuscany registered the largest increases.

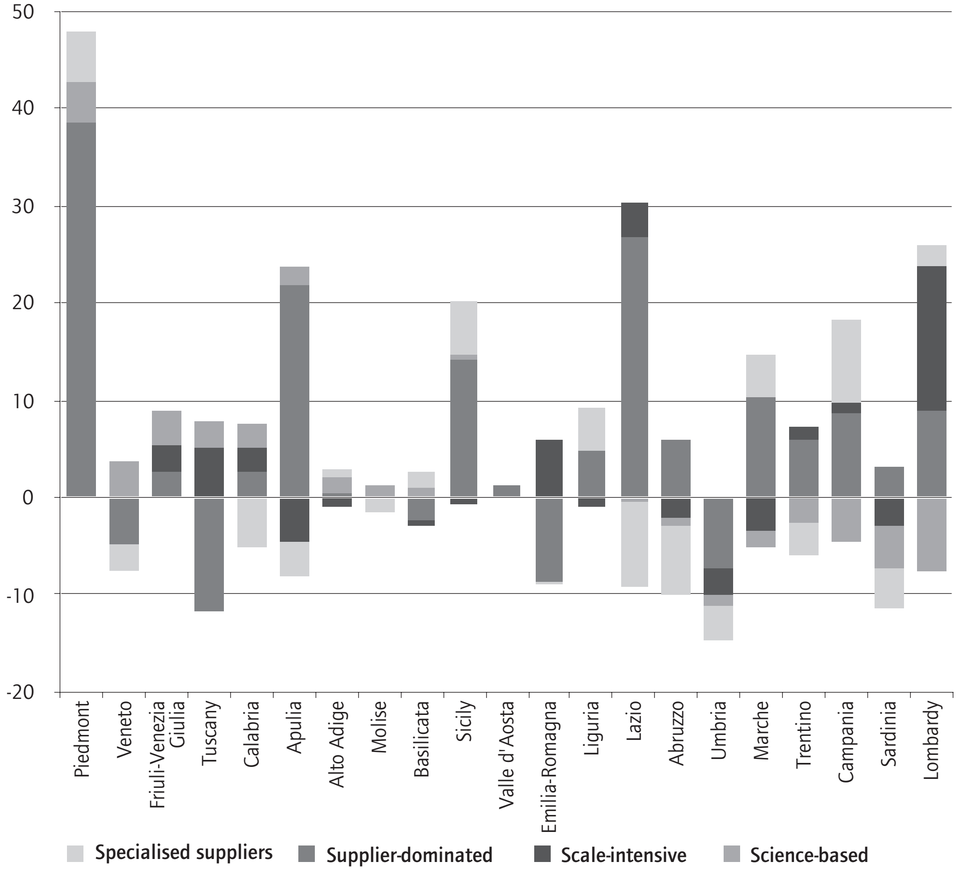
Figure 9 **Variation in the number of workers by Pavitt categories (Q4 2014 – Q4 2015) – in thousands of units. Manufacturing**



Source: calculated from ISTAT-LFS data

A similar scenario emerges in the area of services (Figure 10). Despite a decade-long expansion of service sector employment to the detriment of manufacturing, there were large variations in high-technology service sector employment in 2015 in just a few regions – Piedmont, Veneto, Friuli-Venezia Giulia and Tuscany. In contrast, the 'supplier-dominated' services once again recorded the highest growth in employment, especially in Piedmont, Apulia, Sicily and Lazio.

Figure 10 **Variation in employment per technological group (Q4 2014 – Q4 2015) – in thousands of units. Services**



Source: calculated from ISTAT-LFS data

Summarising, what emerges from this first analysis of regional employment data from the ISTAT Labour Force Survey is the strong diversity among the Italian regions in terms of employment trends in the last year. Taking into account all workers – on both temporary and permanent contracts – the greatest increases in employment were recorded in Lazio (+66 830), Sicily (+43 440), Tuscany (+34 000) and Lombardy (+28 430). The worst performances were in Puglia (-17 000), Umbria (-8 700), Abruzzo (-8 700) and Campania (-7 120). However, if the increase in employment recorded in the last year is broken down by age category and contract type, it emerges that in the best-performing regions – Lazio, Sicily, Tuscany and Lombardy – a large proportion of new permanent workers fall into the over-55 category (over 25% in Lazio and Sicily). In Sicily, furthermore, of the 43 000 new workers, 18 000 were employed on fixed-term contracts.

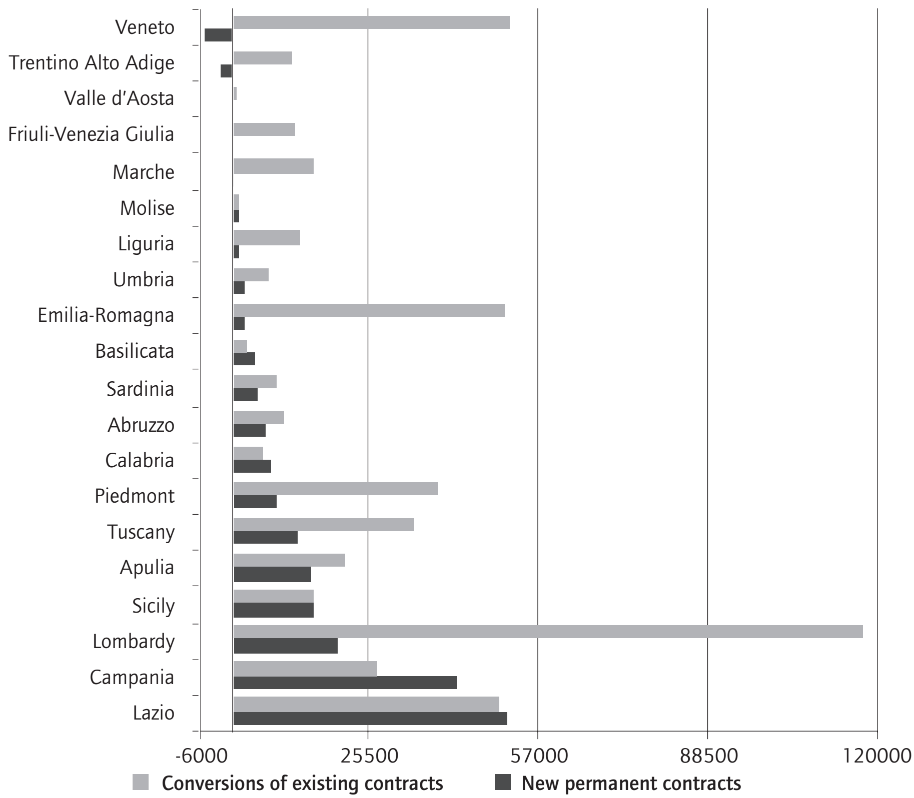
The analysis of employment by professional category also shows that new jobs tend to involve, above all, low-skilled workers, except in the cases of Lombardy, Veneto and

Piedmont. Finally, at sectoral level, ISTAT data indicate that most of the increase in employment registered in 2015 was in the low-technology area and, for the most part, in the service sector. The so-called 'science-based' sectors grew modestly, especially in the manufacturing area – the largest increase being recorded in Tuscany (+7 290). Furthermore, it was the 'supplier-dominated' sectors – with the lowest technological intensity – that mainly drove the increase in employment in the Italian regions, in both manufacturing and services.

4.2 Analysis of INPS data

Trends for new and converted contracts observed at regional level show a certain degree of diversity, as noted in the previous sections.

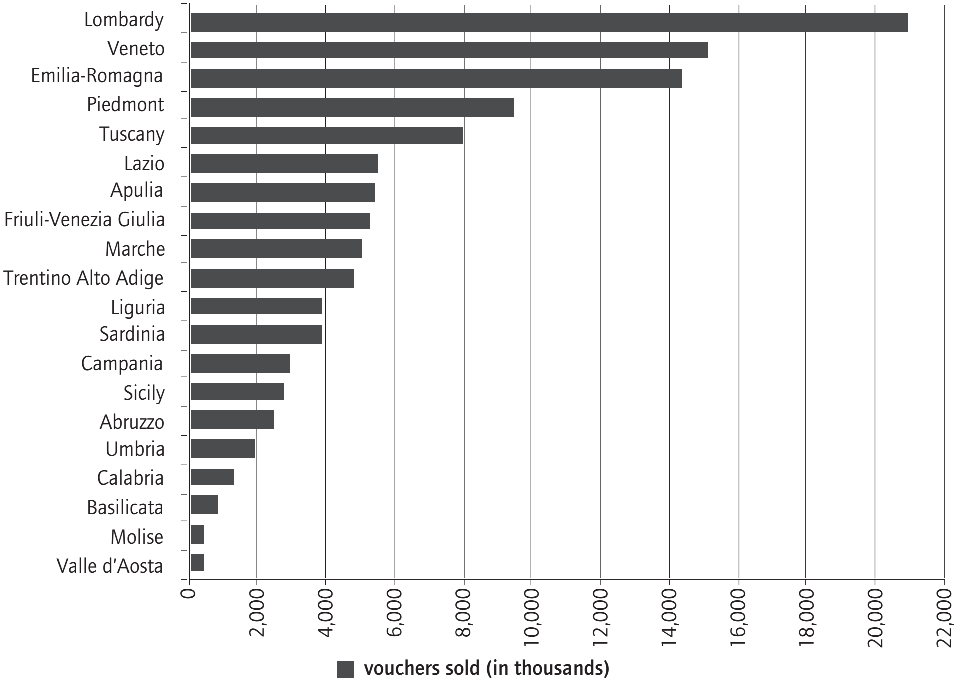
Figure 11 **New permanent jobs and conversions of fixed–term contracts by region (2015)**



Source: calculated from INPS data

In most Italian regions – except for Lazio, Abruzzo, Campania and Calabria – conversions of existing contracts outnumbered new contracts (Figure 11). In the northern regions, however, the difference between the two cases was considerably larger than in the rest of the country.

Figure 12 **Vouchers sold per region (2015 – in thousands)**



Source: calculated from INPS data

The evidence in Figure 11 seems to support the interpretation put forth in Fana *et al.* (2016) regarding the dynamics of contracts in southern regions. In this area, firm-level incentives seem to have partly favoured the formalisation of jobs previously performed on an informal basis.

The Jobs Act does not seem to have managed either to halt or reduce the progressive increase in atypical work, as can be seen from the data related to the number of vouchers sold. According to INPS data, in 2015 more than 115 million vouchers were sold, involving 1.5 million workers. The regional breakdown (Figure 12) shows that it was, above all, the regions of northern Italy (Lombardy, Veneto, Emilia Romagna, Piedmont and Tuscany) that made most use of instruments of payment while the southern regions used them least. The variation in the use of vouchers compared to 2014, however, does not follow any evident north-south pattern: the biggest change is in Sicily, with an increase of 94%, followed by 83% in Liguria and 80% in Apulia and Abruzzo.

The analysis of INPS data, therefore, indicates a certain degree of diversity between the regions from the point of view of trends on contracts. The main finding, however, is in relation to the greater prevalence in the south of new contacts over conversions, which might well reflect the emergence of undeclared work due to the incentives.

5. Conclusions

The analysis conducted in the present work builds on the contribution made by Fana *et al.* (2016) to the study of Italian employment trends following the introduction of the Jobs Act. In particular, an attempt has been made to add to the existing assessments of labour force trends in Italy by providing further detail at regional level. This additional focus seems particularly important given the strong territorial polarisation typical of the Italian economy and the very different historical performance of the northern from the southern regions in terms of employment.

Fana *et al.* (2016) show that 2015 was the year with the highest proportion of fixed-term contracts in total contracts since the relevant INPS records began. In this regard, it is important to note that the growth in the share of fixed-term contracts was not affected by the two initiatives – contributions exemptions and the Jobs Act – expressly aimed at spreading the new 'increasing protection contract', since this peak resulted from structural and cumulative trends that predated the recent reforms. Furthermore, the analysis shows that the slight increase in permanent workers was, to a significant degree, linked to conversions – i.e. stabilisations – of existing contracts rather than the creation of new employment. Confirming the arguments put forward in Sestito and Viviano (2016), it should also be noted that new permanent contracts were mainly the result of monetary incentives provided to companies. In terms of hours worked, there was a growth in part-time positions, especially in the area of permanent contracts. Finally, in line with a trend already established prior to the introduction of the Jobs Act, employment seems to be growing only for older categories of workers (over 55 years), contrasting with a persistent worsening of the situation of younger workers.

The results of the regional analysis largely confirm the national trend. However, there also seem to be some significant elements of diversity. In the first place, the increase in employment observed in 2015 tended to be distributed mainly in the larger regions (Lombardy, Piedmont, Campania and Sicily). In the two southern regions (Campania and Sicily), the increase in employment contracts seems to relate to the emergence from undeclared work following the introduction of incentives. In terms of trends by age category, in the two northern regions recording the largest increases – Piedmont and Lombardy – new permanent jobs were mainly filled by workers aged over 55. This finding must be seen in the context of the observation made when analysing the quality of employment – distinguishing workers by professional category – and the distribution of employment among the different productive sectors identified in relation to their technological intensity: new employment was concentrated mainly among low-skilled workers and in low-technology sectors. The only region where a positive trend was observed for medium- to high-skilled workers was Lombardy. In sectoral terms, new employment seems mainly concentrated in low-technology services (the only region seeing an increase, albeit very modest, in high-technology manufacturing sector jobs was Emilia Romagna).

These findings are particularly important because, given the modest increase in employment essentially driven by incentives being awarded to companies, they seem to point to a weakening of the employment structure itself. In the first place, the link between new employment and the available incentives casts doubt on any potential consolidation of employment. Secondly, the increase in the preponderance of older and less-skilled workers – who are typically less productive than younger and more skilled workers – suggests a regression in the employment structure in terms of quality. The same conclusion may be reached with regard to the reduction in the relative importance of employment in high-technology sectors with high growth prospects. Finally, the analysis on a regional basis of the administrative data provided by the INPS shows how the phenomenon of temporary and insecure work – in particular work involving the use of vouchers – is increasingly widespread and in all regions. The use of vouchers, however, seems to be prevalent in northern regions, specifically in Lombardy, Veneto, Emilia Romagna, Piedmont and Tuscany. This would appear to confirm the findings by Anastasia *et al.* (2016) arguing that the use of vouchers does not, at least for now, seem to be making any contribution to tackling undeclared work, traditionally concentrated mainly in the southern regions.

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Appendix

Table A1 **Pavitt's taxonomy of manufacturing and service industries**

Science-based	NACE codes (Rev. 1)
Chemicals	24
Office machinery	30
Manufacture of radio, television and communication equipment and apparatus	32
Manufacture of medical, precision and optical instruments, watches and clocks	33
Communications	64
Computer and related activities	72
Research and development	73
Specialised suppliers	
Mechanical engineering	29
Manufacture of electrical machinery and apparatus n.e.c.	31
Manufacture of other transport equipment	35
Real estate activities	70
Renting of machinery and equipment	71
Other business activities	74
Scale-intensive	
Pulp, paper & paper products	21
Printing & publishing	22
Mineral oil refining, coke & nuclear fuel	23
Rubber & plastics	25
Non-metallic mineral products	26
Basic metals	27
Motor vehicles	34
Financial intermediation, except insurance and pension funding	65
Insurance and pension funding, except compulsory social security	66
Activities auxiliary to financial intermediation	67
Supplier-dominated	
Food, drink & tobacco	15-16
Textiles	17
Clothing	18
Leather and footwear	19
Wood & products of wood and cork	20
Fabricated metal products	28
Furniture, miscellaneous manufacturing; recycling	36-37
Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel	50
Wholesale trade and commission trade, except of motor vehicles and motorcycles	51
Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods	52
Hotels & catering	55
Inland transport	60
Water transport	61
Air transport	62
Supporting and auxiliary transport activities; activities of travel agencies	63