

Employment and economic recession in Germany, Italy, and UK: different remedies for the same illness?

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Abstract²

This paper considers the employment consequences of the recent global economic crisis, with particular attention to the policy-interventions aimed at improving the performance of the labour market. Across Europe, different economies have experimented with a range of policy-intervention resources to tackle the employment effects of the recession. However, rather than building a catalogue of success stories, we argue that a critical evaluation of these policies can only be conducted by considering the specific social and economic scenario under which they operate. We adopt a case-study approach to this task, comparing and contrasting the experience of Germany, Italy, and the United Kingdom. We outline the underlying strategies adopted by these three countries to combat the negative effects of the recession in their labour markets. Issues related to the effectiveness of short-time working schemes, and the relationship between youth unemployment, education and training, are considered in further detail.

1. Introduction

The global recession that has recently affected the world's economy is the most severe economic crisis in the Post-War era. Rooted in the financial and real estate markets, and originated by the bursting of speculative bubbles in the US housing market in 2007, the crisis has widely spread in Europe. By mid-2008 most European countries had been affected by an economic recession. However, comparing the employment strategies adopted by different European economies, we observe that there is no single policy that can meet the needs of all countries in the management of the crisis. European countries were affected differently by the global crisis, with different intensity, and at different stages. Furthermore, these countries differ with respect to their productive structure, their institutional settings, and the way social dialogue is functioning between employers, employees, and governments. For that reason, it is not possible to identify a single strategy or remedy that would work equally well for all countries.

We restrict our attention to three countries: Germany, Italy, and the United Kingdom. These three countries are among the four largest economic systems in the European Union, accounting altogether for more than 53% of all European population, and generating more than 46% of the total European

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GDP. We concentrate our attention on policies addressed to maintain employment and to improve the labour market performance. Our aim is to provide an evaluation of the success of such measures, and on the reason why similar measures have produced different outcomes.

In the first part of the paper, we provide a brief outline of the economic performance of Germany, Italy, and United Kingdom, with a focus on their labour markets. For each economy we identify: (i) country-specific issues and features characterising the labour market performance before the crisis, (ii) the channels through which the crisis has affected the labour market performance, and the categories of workers mostly affected by the crisis, and (iii) the actions taken to contrast the employment effects of the recession. On the basis of this evidence, we highlight the features of the employment strategies adopted by these three economies. In particular, we observe that the British economy has confided in the automatic adjustment mechanism in the labour market, supporting and enhancing the job-search activity for unemployed workers. On the contrary, Germany and Italy invested major effort in measures aimed at preventing employment levels from falling through the adaptation and enlargement of existing short-time working schemes. However, we can observe that differences in the organisation of the labour markets and the interaction between social partners in these two economies have affected the effectiveness of these programmes. Italy managed short-time work relying on its centralised system of wage-supplements managed by the national social security system. Germany, instead, encouraged the use of short-time work in a labour market that is characterised by corporatism between employers and unions. In this context, short-time work policies interacted with various other instruments of internal flexibility promoted at firm level, such as ‘working-time accounts’, the measure that was used most often by firms. We observe that the combination of these measures has played a fundamental role in preventing a major increase in German unemployment.

In the second part of the paper we analyse the employment strategies adopted by Germany, Italy, and the United Kingdom from a wider perspective. In particular, we examine the link between the short-run, *ad hoc*, policies introduced to counteract the employment effects of the current recession and the long-run implications of such policies, as well as the economic background within which these policies have been introduced. The analysis explores two fundamental issues: (i) the effectiveness of short-time work schemes, and (ii) the surge of youth unemployment, with a focus on their linkages with education and training.

The remainder of the paper is organised as follows: in Section 2 we provide an overview of the economic situation of Italy, Germany, and the United Kingdom –before and during the crisis– and we attempt to identify the employment strategy adopted by each country to counteract the economic downturn. In Section 3, we consider two issues in further detail: (i) the effectiveness of short-time working schemes, and (ii) the relationship between youth unemployment and education and training policies in the three countries considered in our study. Section 4 concludes.

2. An overview of three economies: Germany, Italy, United Kingdom

Germany, Italy and United Kingdom 2007-2009

Prior to exploring the country-specific policy programmes developed to counteract the employment effects of the recession, we provide an overview of the economic structure and of the performance of the three countries considered before and during the crisis. Table 1 presents, at a glance, some key indicators of the performance of the three economies considered in this paper. With respect to some economic key indicators Italy is lagging behind Germany and the UK. For instance, economic growth in Italy was significantly lower than that of Germany and the UK before and during the crisis. Likewise, the Italian national debt was far above 100% of the GDP, by far the largest of all three countries. However, while Italy has run a larger deficit than the UK until 2006, the picture has turned from 2007 onwards. Especially in the years during the crisis (2008 and 2009) the UK experienced a very large deficit. Germany had the lowest deficit amongst the three countries. Not only the public debt but also the debt of private households plays a role in order to assess the threat of over-indebtedness of a country (Horn *et al.* 2010). Clear differences are observable among the three countries. In 2001, the rates of household indebtedness as a share of disposable income were very close to each other in Germany and the UK, with rates of 102% and 104% respectively. Since then, the debt of the two countries has developed very far apart. Until 2008, Germany's debt has fallen significantly and continuously, while the UK's debt has risen significantly and continuously up to 2007 to over 150%. Italy, instead, had a very low starting rate of only 32%. By 2007, the Italian debt had also significantly and steadily increased to over 56%. The three countries also differ significantly in term of their savings rates. Traditionally, Italy and Germany have high savings rates. While Italy's savings rate has remained relatively constant, Germany's savings rate tended to increase since 2001. In contrast, the savings rate of the UK has been consistently falling from 2001 through 2008.

The dynamics of the unemployment rates over the past decade are also worth considering. In 2009, the unemployment rates of all three countries were remarkably close to each other (7.4% to 7.8%). However, Germany's unemployment rate has always been significantly higher than in the UK over the past decade. (In 2005, it was more than twice as high). Italy had in 2001 the highest unemployment rate (9.1%) which has been falling steadily until the start of the crisis. Before the crisis, the UK registered annual unemployment rates between 4.7% and 5.3%. During the crisis, the British unemployment rate experienced a sharp increase of more than 2 percentage points (up to 7.8%).

[Table 1 about here]

Country-specific shocks during the crisis

To gather a better understanding of the country-specific crisis management, it is important to analyse how individual countries were affected by the crisis. Germany experienced a banking crisis and a slump in demand. Apart from the banking sector, which had to be stabilised with a so-called ‘bank rescue-package’, the export sector (the capital goods industry in the manufacturing industry, mechanical engineering and the automotive industry) was mainly affected as a consequence of the crisis. In contrast, the UK was hit by the crisis immediately through three different channels. First, the British economy was hit hard by the banking and financial crisis due to its over-dependence on the financial sector (see Figure 1), which severely reduced the business investment and consumption expenditure of households. In addition, the UK experienced a housing crisis. Due to the sharp drop in housing prices the construction industry collapsed. Finally, the UK was also directly affected by the global demand shock, which generated a negative impact on export industries. Italy was initially not affected as strong as Germany or the UK from the global crisis because it did not experience a banking crisis. Nevertheless, the Italian economy was severely hit by the demand shock following the financial effects of the crisis. This shock hit especially the mechanical and textile industries, the construction sector, and the automotive industries. Moreover, the Italian economy was already in a less favourable position compared to Germany and the UK.

Employment shares across productive sectors

Germany, Italy, and the United Kingdom have been affected by the crisis through different channels because of significant differences in the share of employment across sectors, and the economic performance measured by the share of gross domestic product across these sectors (Figure 1). Particularly striking are the differences between the three countries in terms of their dependence on the banking sector and the manufacturing industry. While the UK has by far the highest dependency on the financial industry, the importance of the manufacturing industry is remarkable in both Italy and Germany. From Figure 1 we can observe that one fifth of all employees in the UK worked in the Finance sector contributing about 26% to the British GDP in 2007, while only one in ten employees worked in the manufacturing sector. In Italy the situation is reverted. One fact is noticeable in Germany. While around 46% of all employees work either in the retail sector or in the private and social services, they contribute to only less than 23% to GDP.

[Figure 1 about here]

The German, Italian and British labour market from the beginning of the crisis

Since Germany, Italy, and the UK chose different ways to tackle the crisis, it is interesting to consider the employment effect of their response to the economic downturn. Although the three countries registered an equally sharp decline in GDP during the first year of crisis (Figure 2),

employment levels fell only in Italy and the UK (Figure 3). Outstanding is the resilience of the German employment level. Despite a sharp decline in GDP, employment increased (even slightly) until the beginning of 2009, followed by very modest fall until the beginning of 2010 and a substantial growth in the following quarters. Given the good state of the German labour market and surge in world-wide demand for German exports there has been a strong economic recovery in Germany with GDP overtaking its pre-crisis level in the first quarter 2011. In contrast, in Italy and the UK GDP and employment levels fell significantly during the crisis. In both countries the economic recovery in terms of GDP has been very sluggish and employment levels have shown no real sign of improvement so far.

[Figures 2 & 3 about here]

Some further insights about the outstanding performance of the German labour market can be found by observing Figures 4a and 4b. Figure 4a shows the dynamics of the annual number of hours worked per employee. It reveals a sharp drop in hours worked by more than 3% in Germany and about 2.5% in Italy in the first quarter of 2009. Although, in Germany the number of hours worked per employee in the fourth quarter 2010 were still 1% lower than before the crisis, the recovery was remarkable. In contrast, Italy's hours worked were still more than 2% lower than pre-crisis levels by the end of 2010. Figure 4b describes the evolution of the productivity per hour worked. Both countries experienced an equally strong fall in productivity during the first year of the crisis and a recovery during the second year of the crisis, with Italian productivity increasing quicker than the German productivity, both still below the pre-crisis level. This raises the question of what factors are responsible for these differences and will be, *inter alia*, the subject in the following sections.

[Figures 4a & 4b about here]

2.1 Germany

Before the crisis

The German economy is characterised by a strong export orientation. Remarkable in this context is the strong German specialisation in only three categories of goods (cars and car parts, machines, and chemical products) which together account for 46% of all German exports in 2008 (Gehle-Dechant *et al.* (2010)). During the last upswing³, the gross value added in the manufacturing sector increased by 18%; in the areas of 'financing, renting and business services' and 'trade, transportation and communication services' it increased by only 13% and 10%, respectively (Statistisches Bundesamt (2010b), own calculations). The strong export orientation is offset by weak domestic demand. In the

³ According to Logeay and Zwiener (2008) the upswing began in the fourth quarter of 2004 and ended in the first quarter of 2008.

same period, gross value added increased by only 6% in the two industries ‘construction’ and ‘public and private services’.

Who was affected by the crisis?

The first signs of crisis were evident in the second quarter of 2008, with the decline in gross domestic product and a significant slowdown in the growth of exports. In the fourth quarter of 2008 exports even started to fall by 5.7 %. Furthermore, there was a slump in demand for motor vehicles and machinery. The decline in exports intensified and reached an annual average of 14.5% in 2009. This was the first fall in exports since 1992 and there has not been any comparable strong drop in Germany before. By disentangling this effect it can be seen that the exports of goods dropped by 16.5%, while exports of services decreased by only 1.9% (Statistisches Bundesamt (2010a)). Due to the strong dependence on exports, the manufacturing sector was hit particularly hard by the global recession. Four quarters after the start of the crisis, value added in the manufacturing sector decreased by more than 20% (Statistisches Bundesamt (2010b), own calculations). In contrast, the situation in the services sector and the banking and insurance sector was much better. According to a survey by the IAB (Institute for Employment Research) only 20% and 30% of firms in these two sectors were totally affected or partly affected by the economic crisis in the second quarter of 2009, while 70% of all businesses in the metal industry were affected by the crisis (Möller (2010)).

This is also confirmed by the results of a study by Bogedan *et al.* (2009) on the basis of the WSI works council survey in 2009. According to this, companies in West Germany, companies with a strong export orientation, and companies in the areas of raw materials and intermediate goods and capital and consumer goods were affected relatively more by the crisis than companies in East Germany or businesses in the service sector. Furthermore, 76% of the works councils in companies with a strong export orientation report that their firms were affected by the crisis, whereas companies with a slight or average export dependence were affected by only 46% and 56% respectively.

Overall, it can be said that “*the crisis primarily hit strong firms in economically strong regions*” and “*especially those firms were hit by the world recession that had the most severe recruitment problems before the crisis*” (Möller (2010), p.330f). It is important to observe that firms affected by the crisis were the ones that drove German growth before the start of the recession. Moreover, these firms were signalling a lack of skilled workers just before the crisis hit their demand. This is relevant for what the is so-called “German job miracle” (Krugman (2009)) because, facing the recession: (i) these firms were financially in the position to hoard labour, and (ii) these firms, in contrast to their past experiences of the previous crisis, voluntarily decided to retain their skilled workers in order to have them available when demand picks up again.

These crisis effects were also reflected in employment effects as is shown in detail by Rosemann and Kirchmann (2010), who also compared the employment effects to the previous crisis. Employees who are male, work in export-oriented companies, in southern Germany, or in full time, were affected by unemployment more often than women, older workers, workers in part-time, or in mini-jobs. This study also shows that the group of employees without vocational training were hit particularly hard by the crisis. In contrast, the dynamics of youth unemployment looks more favourable in comparison to previous crises, although the under 25-years old were again affected more by unemployment relatively to the average employee, like it is generally the case. Furthermore, the authors point out an interesting phenomenon with respect to the employment of people older than 55 years old: Employment subject to social insurance contributions for this group of people is, in contrast to the general trend, increasing. Second, the number of registered unemployed people in this age group increases and the development is worse in comparison to previous crisis. There are two reasons which can be brought forward to explain this unusual behaviour. First, a higher proportion of elder people participate in the labour force in current times. Second, the so-called “58-years regulation”⁴ has been terminated, hence fewer of the elder employees participate in early retirement and are dismissed and are counted as unemployed. Finally, the authors present a few results with respect to different types of employment. First, part-time employment is increasing whereas full-time employment is decreasing. Although, it has to be stressed that the increase of male part-time employment is not increasing as well as it was during the previous crisis. Second, marginal employment is increasing. Third, temporary agency work is decreasing. Given the enormous increase in temporary agency work during the last boom this is not surprising because of its role as a cyclical mechanism to adjust employment.

Measures to alleviate the crisis

To ease the crisis, the federal government promoted, in addition to the banking bailout package, a series of measures to support the economy. These measures were bundled and approved by the government in the so-called stimulus packages 1 and 2, in November 2008 and January 2009, along with another economic stimulus package, called Growth Acceleration Act,⁵ in December 2009. These economic stimulus packages include a variety of measures that can be grouped into three different categories: (i) measures to secure employment, (ii) measures to create employment, and (iii) other measures.

⁴ According to the 58-years regulation, it was possible until the end of 2007 that unemployed people received unemployment benefits I or II without any duties until the unemployed people could retire and receive pensions without deductions. This has changed. Unemployed people can be forced to be retired even if this implies to get deductions in pensions.

⁵ Wachstumsbeschleunigungsgesetz.

On crisis management, Germany has put a strong emphasis on measures to secure employment. Among others, the existing regulations of short-time work⁶ (STW) have been extended to promote its use and to give companies financial incentives to retain their workforce during the recession (see Bogedan (2010)). In addition, these measures comprise the expansion of the training program for older and low-skilled workers,⁷ and a permanent reduction in unemployment insurance contributions from 3.3% to 3% from January 2009 onwards, which was amended due to the economic crisis by a temporary decrease to only 2.8% for the period beginning of 2009 until July 2010. There are also a number of direct and indirect assistance measures in support of businesses. The focus of the two economic stimulus packages was based on indirect assistance to companies, including the quite popular car scrapping scheme, through which the downturn in the automotive industry was delayed. The programs included also public investment in infrastructure, investment in building renovation, additional funding to improve the regional economy and the infrastructure in underdeveloped communities, but also a temporary motor vehicle tax exemption for newly registered cars, and improved deductibility of manual work in the tax declaration.

While the first two economic stimulus packages were focused on indirect enterprise support, the Growth Acceleration Act exclusively included measures of direct enterprise support such as the highly controversial reduction in the VAT for accommodation services with effect from January 2010, easier inheritance rules for family enterprises, and changes in write-offs for enterprises.

Far fewer measures have been implemented to create new jobs. In essence, these were limited to the hiring of 5000 new staff members in Public Employment Services. Similarly, other measures played only a minor role in the economic stimulus packages. Among these, there was a one-time payment of €100 per child, an increase in child benefits and in the child allowance, and an increase in the standard rates of basic allowance for jobseekers with children aged 6-13 years old.

On evidence from the BMF (Federal Ministry of Finance) and Projektgruppe Gemeinschaftsdiagnose (2009), the IMK-Arbeitskreis Finanzkrise (2009) calculated that the financial impact of the three economic stimulus packages and other measures to support the economy, to be around €30 billion for 2009, and €47 billion for 2010.

Situation during the crisis

For Germany, the recent global economic crisis was the deepest crisis in the postwar period. Herzog-Stein and Seifert (2010) compared the economic slumps since the 1970s. The study reveals that in no other crisis there was a similar enormous fall in gross value added (6.9%) and hours worked (3.3%) four quarters after the beginning of the recession. It is remarkable that the performance of the labour

⁶ An overview about the legal prerequisites and the temporary amendments of the existing short-time work legislation is presented in Deeke (2009).

⁷ The German short-cut notation is WeGebAu.

market did not correspond to any of the experiences of previous crises. “*Without a cyclical change in working time or labour productivity*” (Herzog-Stein *et al.* (2011)) we would observe an equally strong drop in employment of equal size to the slump in GDP. In fact, employment even increased until the second quarter of 2009. Herzog-Stein *et al.* (2011) extend the above analysis by taking trends and cyclical patterns into account. They estimate that the drop in GDP would have corresponded to a hypothetical loss of more than 3 million people. The authors find in their analysis that 2 million jobs were saved through a cyclical drop in labour productivity, and that another 1.1 million jobs were saved through the cyclical reduction in working time.

Several factors are responsible for this positive development in the labour market. There was labour hoarding, i.e. a large fall in labour productivity. Companies retained employment during the crisis in order to have skilled and experienced employees after the recession. Furthermore, by restricting the crisis only to certain sectors of the German economy overall the structural change contributed to save jobs. The reduction in employment of full-time positions in the manufacturing sector was compensated by the creation of part-time jobs in the service sector (see Rosemann and Kirchmann (2010)). Additionally, a far more important reason was the stabilisation of employment by adjusting the number of hours worked. This was possible through a whole bundle of measures to promote internal flexibility within firms. Four of these measures had a significant contribution in the reduction of annual hours worked per employee. According to Herzog-Stein *et al.* (2011), working-time accounts and reduction in overtime each reduced annual working hours by 10 hours per employee. The reduction of the usual weekly hours worked, as well as short-time work, had a higher effect, and reduced the annual working time by around 13.5 hours per employee.

The importance of short-time work can be seen in the figures of the Federal Employment Agency. There was a strong increase in short-time work, which reached 1.533 billion registered short-time workers in May 2009. Although short-time work was used extensively, it is interesting to consider the reduction in hours worked in response of short-time working. According to Brenke *et al.* (2010) the vast majority of short-time workers had a reduction in working hours of about up to only one fourth of their agreed weekly working time. Less than 10% of all short-time workers had their weekly working hours reduced by more than 50%. So, in total, the average reduction in working hours is a bit less than 30% of the agreed working time in Germany. Another aspect of short-time work is analysed in an evaluation of the WSI works council survey (Bogedan *et al.* (2009)) of September 2009, which shows that the short-time work was used by 20 % of the companies affected by the crisis. In contrast, working time accounts were used far more frequently, by 30 % of the companies. One explanation for this phenomenon is that working time accounts are more frequently

used in manufacturing, which was the sector most severely hit by the crisis.⁸ The works council survey also shows that companies used a number of other measures to secure employment during the crisis. These ranged from transferring staff within or across companies, provisions for leave-taking, other changes in working hours including pay cuts and reductions in fringe benefits (see Bogedan *et al.* (2009)). The importance of working-time accounts is further stressed by the fact that a large number of employees actually do have a working time account.⁹ According to Groß and Schwarz (2009), 53.7% of employees in manufacturing had a working time account in 2007 and 47.0% of employees in the service sector. Due to the upswing before the crisis the working-time accounts were well filled and were now used in the crisis to reduce hours worked.

The German job miracle

The performance of the German labour market over the recent crisis was unique and it is in contrast to all previous experiences. Despite a massive slump in the economy, there has been no mass layoff. What led to this job miracle?

1. There was a clear strategy in tailoring measures against the crisis. The focus was maintaining employment. The extension of short-time work has contributed to this objective in great proportion (see Bogedan (2010)). The car scrapping scheme was also very important, as it delayed the collapse of the automotive industry quickly, in a target-oriented way, and at an early stage of the crisis.
2. The “German job miracle” is owed to the fact that the extensive use of measures of internal flexibility allowed for an enormous reduction in hours worked. In Germany, the social partners created a variety of instruments of internal flexibility over time. These instruments were developed within a reliable framework, particularly in the industries located in the areas affected by the crisis. Therefore, these firms could easily adapt labour inputs by varying working hours to demand. Thus, all the fundamental factors that support the adjustment of working hours, such as (i) a distinct system of regulated flexibility, (ii) collective agreements with respect to working hours, and (iii) strict employment protection legislation (OECD (2010a)) were present in the German experience.

⁸ Research shows that working time accounts are used more frequently in larger companies, the more human capital is needed for the job, and in companies with works councils (see Seifert (2004)). In 2007, 53.7% of employees in the manufacturing sector used working-time accounts, while only 47% of employees in the service sector had a working-time account (see Large and Black (2009)).

⁹ To understand the “German job miracle” it is important to consider the changes to the working-time model that have taken place during the recent years. Seifert (2004) provides an overview about the changes that took place resulting in moving away from the traditional working-time model towards more flexible working-time forms. Seifert calls it ‘regulated flexibility’ because “*the key parameters of flexible forms of working time continue to be largely governed by collective agreement*” (Seifert (2004)). The main change that took place towards more flexibility is the increasing use of working-time accounts.

3. The conditions were very favourable, so that the measures introduced could contribute to stabilise the economy and employment. The companies that were affected by the crisis were financially able to afford short-time working arrangements.
4. Furthermore, they could rely on a whole bundle of instruments of internal flexibility at their disposal. This was not the case over past crises. Internal flexibility, combined with wide adoption of short-time work policies, has allowed to maintain employment and to finance labour hoarding over the current crisis. Therefore, it was a conscious decision of firms to hoard their workforce in order to retain their skilled workers.
5. The stabilisation of the labour market and the economic stimulus packages were successful in preventing the spreading of the crisis from manufacturing to other sectors of the economy. Hence, the structural change continued and contributed to the remarkable German labour market. The rise in employment of part-time jobs in the service sector covered the loss of full-time jobs in manufacturing in aggregate.

2.2 Italy

Before the crisis

Italian production relies predominantly on food farming, metal engineering, textiles and clothing, industrial design, and on the production of interior fittings and furniture. The predominant model of production is organised in “industrial districts”, located in specific geographical areas. Each district is composed of a wide number of small-medium businesses; each business is specialised to contribute to a specific stage of the productive process. The Tertiary sector contributes to 69% of total GDP, followed by Industry (29%), and Agriculture (2%). Just before the outburst of the financial and economic crisis, the Italian employment rate had reached its highest ever peak of 58.7%. Unemployment had steadily decreased from above 11% in 1995 to 6.1% in 2007 (Busalacchi *et. al.* (2009)).¹⁰ This sharp improvement in the performance of the Italian labour market was aided by the introduction of radical reforms since the mid-1990s. The Treu measures in 1997 introduced a framework to increase labour market flexibility through the creation of temporary work contracts and through the provision of incentives to part-time work. The Biagi reform of 2003, further contributed to the deregulation of existing atypical¹¹ work arrangements (temporary agency work and part-time work), and new forms of atypical work such as on-call jobs, job-sharing, and occasional work. The effect of these reforms was significant. Out of total employment, the temporary employment share increased from 7% to 12.4% over the period 1995-2007, and the part-time employment share increased from 10.5% to 15% (Schindler (2009)).

¹⁰ These overall positive figures do not account for the wide gap between the North-South labour market performance. The Southern regions of Italy lag behind the North, with higher unemployment rates, and lower employment rates for women and elder workers.

¹¹ According to Eurofund, the term ‘atypical’ is “...used to refer to employment relationships not conforming to the “typical” or normal model of full-time, regular, continuous employment with a single employer over a long time span.”

Who was affected by the crisis?

In contrast to Germany and the UK, the outburst of the financial crisis did not hit the stability of the banking system. Italian banks, traditionally more risk-averse than their international partners, did not hold toxic bonds and used leverage operations with moderation. The first serious signs of crisis were visible in the last quarter of 2008, when GDP dropped by 1.9%. At the same time consumption fell by 2% and investment by 8.9%. Italian exports were severely hit by the fall in global demand and decreased by 7.4%.¹² Italian exports, traditionally based on goods of low-technological content, were exposed to stronger price competition and substitution effects compared to the experience of Germany and the UK (oriented to the production of goods with middle/high technological content). The fall in global demand and its negative effect on exports can be identified as the fundamental device through which the crisis spread within the Italian economy. Although the Italian banks were not severely hit by the financial crisis, access to credit became progressively more difficult, in particular for small and medium enterprises: the heart of the Italian industry and trade. The automobile sector and the construction industry were among the most affected by the crisis. Unemployment increased by 0.6% in 2007-08, by 1.1% in 2008-09, and by a further 0.6% in 2009-10. In contrast with the British experience, Italian unemployment has increased only with a delay over the decline in output growth. However, the relatively moderate effects on unemployment have been mirrored by a substantial fall in the number of hours worked, similarly to the UK, due to firms' labour hoarding behaviour and their intensive use of subsidies to maintain employment. The effects of the economic downturn affected the labour market along several patterns of inequality. Amongst the most relevant dimensions, we can observe that geographically, Southern regions have experienced a sharper increase in unemployment. According to the typology of jobs, fixed-term and temporary contract workers have been particularly hit by the recession. To this extent, unemployment has significantly increased for temporary agency workers in the sectors of manufacturing, textile, finance, and business services (Busalacchi *et. al.* (2009)). O'Higgins (2010) documents that between 2008 and 2010 the fall in the employment rate by type of contract has been significantly sharper for workers on a fixed-term contract (-16.2%), and short-term contract (-15.9%), compared to employees in a permanent contract (-0.7%) and the self-employed (-4.3%). Youth unemployment has also registered a considerable increase since the beginning of the recession. According to Eurostat, the rate of unemployment in the age group 15-24, already stagnating at the very high rate of 20.3% in 2007, increased by 1% in the period 2007-08, and by 4.1% in the period 2008-09 (versus an increase of 1% for workers aged 25-54 in the same period). Since the incidence of temporary employment is significantly higher among the young (O'Higgins (2011)), it is evident that young workers who have recently entered the Italian labour market have

¹² Data from Busalacchi *et. al.* (2009).

been mainly hired in atypical contractual agreements, and have been more severely exposed to the negative effects of the economic recession.

Measures to alleviate the crisis

The Italian government provided very limited discretionary intervention in response to the crisis. This resolution was mainly justified by the very large size of its public debt and by the aim to keep the impact of such measures budget-neutral.¹³ Principal forms of intervention included the provision of resources to ease credit to financial markets, relief of financial pressure on firms, and fiscal stimulus to consumption and investment. Within the annual budget invested in anti-crisis measures, the Italian government allocated 22% of the resources to direct intervention in the labour market in 2009 (46% in 2010, and 9% in 2011) (Ministero dell'Economia e delle Finanze (2010)).

Over the past 60 years, the traditional Italian approach to labour market policy has been relying on a system of 'shock absorbing' devices to maintain employment during periods of economic downturn. The legal apparatus regulating eligibility criteria, duration, and the specific features of each single shock absorbing device is rather sophisticated. The system has never experienced a radical revision or review, but continuous amendments and exceptions have been brought to its regulations in a rather fragmented way. This process has progressively undermined the efficiency of the system and has generated inequality in the treatment administered to different categories of workers, which is at the center of a heated political debate.¹⁴ The system of shock absorbers is based on three fundamental components: (i) Wage Guarantee Fund (Cassa Integrazione Guadagni, or CIG), (ii) job-transition benefits and unemployment benefits, and (iii) solidarity contracts. The government body financing and managing these schemes is the Istituto Nazionale Previdenza Sociale (INPS), the Italian social security institute.

- (i) The CIG system is the most largely used shock absorber. It allows the introduction of short-time working, providing workers on a permanent contract with a wage-replacement subsidy (80% of the base salary). The CIG articulates in Cassa Integrazione Ordinaria (CIGO) and Cassa Integrazione Straordinaria (CIGS). The CIGO targets businesses with more than 15 employees who are experiencing a temporary reduction in production as result of exogenous shocks in demand or seasonality effects. It is granted for a period no longer than 12 months. The CIGS targets firms experiencing a crisis, re-structuring, or re-organisation. It can be applied within a wider range of production sectors and circumstances compared to the CIGO, and can be granted for a period no longer than 24 months. However, the duration can

¹³ According to Ministero dell'Economia e delle Finanze (2010), anti-crisis intervention policies have amounted to less of 0.2% of GDP over the period 2008-2010.

¹⁴ The Italian system of shock absorber is extremely complex and articulated. Additional discussion on its structure, features, and on its adaptation to address the recent crisis can be found in Berton *et. al.* (2009), Busalacchi *et. al.* (2009), Ferroni and Guerrera (2010), Gatto and Tronti (2010), O'Higgins (2011), and Schlindler (2009).

be further extended according to specific circumstances. The reduction in working-time can be partial or at zero-hours, taking the shape of temporary unemployment.

- (ii) Job-transition benefits are granted to workers who have been made redundant by a business, but are registered in designated job-transition lists and they are financed by the employers. Unemployment benefits provide a replacement rate of 60%, which drops to zero after 8 months. Their eligibility and duration rules are very restrictive and can be accessed by a very limited number of unemployed workers (Schlinder (2009)). Firms hiring workers covered by either job-transition or unemployment benefits are granted tax-discounts from the government.
- (iii) Solidarity contracts are stipulated between firms and trade unions to introduce short-time work with the aim to either maintain or expand employment (defensive or expansive solidarity contracts). These contracts are applicable to all businesses entitled to CIGS. In this case, the Wage Guarantee Fund provides a wage-replacement subsidy worth 60% of the base wage for a period no longer than 24 months (which can be extended to further 24 months, and 36 months in Southern regions).¹⁵

The response of the Italian government to protect employment in the face of the recent recession has taken the shape of yet a further modification and extension of the eligibility, duration, and replacement rate criteria across the various types of shock absorbers. The new package of reforms to the system of shock absorbers was approved for the years 2009-2011. Eligibility to unemployment benefits was extended to apprenticeship workers and several categories of atypical workers. For the years 2009-10 the replacement rate of defensive solidarity contracts was increased from 60% to 80%. Since 2009, the CIG regulation was relaxed (*in deroga*, or CIGD) to extend eligibility to a wider categories of workers. CIGD is managed jointly by INPS and individual Italian regions.¹⁶ The number of working hours replaced by CIG has increased by 25% in the period 2007-08, by 311% between 2008-09, and by a further increase of about 30% over the period 2009-10.¹⁷

[Figure 5 about here]

The role of the CIG in the Italian employment strategy

The Italian employment strategy to combat the effects of the economic recession has almost exclusively relied on a well-established mechanism of shock absorbers, mainly based on a combination of short-time work and income support. The CIG scheme and its most recent adaptations have certainly contributed to prevent a major surge in unemployment. Nevertheless, in

¹⁵ Businesses with more than 15 employees not entitled to CIGS can also introduce solidarity contracts. In this case the Wage Guarantee Fund provides a compensation to both the employer and the employee with a replacement rate of 25% of the income loss.

¹⁶ This process builds on a sequence of progressive relaxation of the CIG criteria which has rapidly evolved over the past 10 years (Ferroni and Guerrera (2010)).

¹⁷ Elaboration from Gatto and Tronti (2010) and INPS.

spite of these measures, unemployment has risen increasing by 11.2% between 2007-08, and by a further 13.6% between 2009-10, continuing to increase even during 2010 (Gatto and Tronti (2010)). Permanent contract workers have only been marginally hit by unemployment, which has mainly affected fixed-term and temporary workers. It is evident that the process of liberalisation of the Italian labour market started with the Treu reform in 1997 has re-allocated a significantly higher share of the labour force in contractual positions that are less covered or not eligible to access the shock absorbers. Thus, the Italian economy appears to be characterised by a dual labour market. On one side, permanent contracts workers enjoy the benefits granted by the system of shock absorbers. On the other side, workers in atypical and fixed-term contract are more severely exposed to the risk of unemployment. In the middle stands a short-time working scheme whose continuous adaptations, re-adaptations, and extensions have progressively increased in complexity, leaving gaps which the current recession has contributed to unveil and magnify. Within this bleak scenario the recent expansion of CIGD suggests that the government has indeed attempted to widen employment protection to atypical workers.¹⁸ Moreover, for the first time in 2009, the use of CIG (CIGD) was paired with ALMP interventions such as the enrolment in job-seeking programmes (counseling, training, and placement) as it is standard practice in the UK for instance. However, a preliminary assessment of such initiatives has challenged their efficiency (Ferroni and Guerrera (2010)).

The lack of employment protection for atypical workers has been aggravated by the fact that in Italy -differently from Germany and the United Kingdom- only a very limited number of unemployed workers is entitled to unemployment benefits. To this extent, CIG schemes are useful to prevent a steep increase in unemployment at the early stages of a crisis, but they still expose workers to the risk of unemployment once their duration has expired. This risk becomes even higher for workers on zero-hour CIG, who are basically already temporarily unemployed. Experience from the past shows that these workers, disengaged from active production and experiencing loss of human capital, are more likely to become unemployed after the period of wage-replacement ends. Gatto and Tronti (2010) estimate that the number of workers protected by zero-hour CIG (temporarily unemployed) has increased by 287.1% (170,000 units) between 2007 and 2009. These workers are not accounted among the unemployed, even though they fundamentally are. On the basis of this evidence, it can be argued that the Italian unemployment situation is much worse than reported by official statistics. It has been estimated that, even under the most optimistic recovery scenario, the halt to employment caused by labour hoarding of firms (either spontaneous or incentivized by the CIG system) cannot be re-absorbed before 2012. However, since the labour market will also receive an inflow of new entrants, unemployment is expected to increase further along a long wave.

¹⁸ The share of CIGD hours authorised by INPS has increased from a range of 5%-14% in the period 2005-2009 to 31% of the total of hours authorised in 2010. (Elaborated on INPS data).

2.3 United Kingdom

Before the crisis

The economy of the UK experienced a long period of prosperity. According to Eurostat, GDP rose by an average growth rate of 3.3% annually between 1992 and 2007. The unemployment rate fell in the same period by 4.5 percentage points to 5.4%. In particular, the British financial and banking sector benefited from economic globalization. In 2006 exports of financial services accounted for 2% of GDP and the value of credit and insurance industry accounted for 8% of gross domestic product (OECD (2009)). In 2007, one out of five workers was employed within the financial sector (see Figure 1). In retrospect, this economic development turned out not to be sustainable. A major component of this was the spiral of simplified access to credit and increase in bond prices, which provided new opportunities to secure larger loans. This phenomenon was reflected by the development of the property market, where house prices rose strongly until the second half of 2007. In the years preceding the recession, the saving rate of the UK was extremely low. British consumption has been mainly financed by the indebtedness of private households. According to Eurostat, the average household debt of private households as percentage of disposable income was 151% from 2006 to 2008, while in Germany and Italy the indebtedness rates were only 93% and 56%, respectively.¹⁹

Who was affected by the crisis?

The sharp increase in house prices before the crisis, tightly linked to a financial sector globally integrated with the international financial markets, have made the UK vulnerable to the financial crisis spreading from across the borders. The first clear signs of crisis were the sharp drop in house prices. British banks were heavily affected by the global financial crisis and several institutions were temporarily partly nationalized. In addition to the financial industry, export-oriented industries suffered particularly hard from a large fall in demand, despite the sharp devaluation of the pound sterling. The unemployment rate increased by 2.3 percentage points to 7.5% from 2007 to 2009. Reduction in jobs has been particularly significant in the sectors of Finance, Business and Services and Distribution, as well as Hotels and Restaurants (Bell and Blanchflower (2009)). Particularly badly affected by the crisis are the 15-24 year olds and the low skilled. In 2009 alone, the unemployment rates of these groups rose by 8% and 12%, respectively (OECD 2010c). Since the beginning of 2000, youth unemployment in the UK has increased against the OECD trend. In spite of a decline in the youth unemployment trend and overall unemployment trend, the share of unemployed workers aged between 18-24 has been steadily rising. (Bell and Blanchflower (2009)). Compared to previous recessions, the current economic downturn was characterised by a relatively stronger incidence of underemployment, which has prevented unemployment levels to surge as high

¹⁹ As we mentioned, high public debt is not the only source of threat to a country's status of over-indebtedness. Households indebtedness also plays a significant role.

as initially expected in the UK.²⁰ This phenomenon can be partly re-conducted to firms' labour hoarding behaviour, aimed at saving on firing costs by promoting wage cuts and reducing their employees' working hours.²¹ In addition, it appears that firms have substituted the offer of longer-term contracts with temporary work. Bell and Blanchflower (2011) document that the number of workers employed on temporary contracts in the UK increased by 8.2% in the period 2008-2010.²² They estimate that around 1.6 million workers in the UK are working in a temporary contract because they cannot find a permanent (and/or full-time employment).

Measures to alleviate the crisis

Unlike Germany and Italy, the UK did not develop a comprehensive package of fiscal policy interventions to prevent the increase in unemployment. As argued by Bell and Blanchflower (2010), this can denote the implicit assumption that labour market flexibility would ease a swift adjustment to equilibrium. An alternative, but not incompatible explanation to the inaction of the government can be found in its limited fiscal budget, after investing major effort addressing the issues emerged in the financial markets. Intervention, therefore, was tailored to target specific social groups, and to address specific issues affecting the performance of the labour market.

The fundamental instrument to grant income support to unemployment workers is the Jobseeker's Allowance (JSA). This type of unemployment benefit can be contribution-based (if the applicant had previously contributed to a job-insurance scheme) or income-based (targeted to support low-income applicants). Applications for JSA are processed by Jobcentre Plus (the British employment agency), which also manages the payments. All workers aged 16-65 who are unemployed and actively seeking employment are eligible to apply.

Compared to direct intervention in the labour market, preference was given to measures aimed at sustaining aggregate demand and support businesses exposed to financial difficulties, such as loan schemes for small firms and tax payment deferrals. The temporary reduction of VAT from 17.5% to 15% from the end of 2008 to the end of 2009 was proven to have some positive effects on domestic demand in the short-term.²³

Interventions more directly addressed to the labour market focused on: (i) easing transition amongst jobs and (ii) training. Training initiatives have widely used the resources of the European Social Fund, supporting apprenticeships and the promotion of employment opportunities for vulnerable groups.²⁴ A widely recognised application of training and re-training initiatives is the 'Train to Gain',

²⁰ In its broad definition, underemployment includes "all workers (part-time and full-time) who wish to increase their weekly hours (whether in the same or a different job)". [Grimshaw and Rafferty (2011), p. 527].

²¹ Bell and Blanchflower (2011) emphasize that labour hoarding behaviour of firms further aggravates the position of young workers compared to older workers, who are more expensive to fire.

²² This evidence is contrast with the experience of other European countries, such as Spain, France, and Italy, where temporary employment has sharply fallen.

²³ Other measures, such as providing direct assistance to companies involved in the production of green products, and indirect support to enterprises in the form of a car scrappage scheme have been implemented.

²⁴ For instance, granting wage subsidies to firms hiring workers who have recently lost their jobs.

a well-established programme aimed at offering advice to firms on improving the skills of their employees. Since January 2009, the scheme was expanded to deliver short-term training interventions in particular areas of business management. Investment was also directed to improve the administrative capacity of Public Employment Services (PES), and to stimulate their connection with other partners, such as skill agencies (Local Employment Partnerships). Specific ‘Skills Hubs’ were created to support workers and business involved in wide scale restructuring to ease the management of redundancies. The Jobcentre Plus ‘Rapid Response Service’ was expanded to support business and their employees under threat of redundancy on smaller scale. PES registered an increase in staff as well as the support of specific programmes. For instance, Jobcentre Plus now delivers one-to-one coaching to individual jobseekers tailored to their specific needs. Moreover, to combine passive income-support to active re-engagement with the labour market, the government currently provides a top-up on unemployment benefits to long-term unemployed who are willing to enrol in training initiatives.

More emphasis was put on measures to create jobs for the under-25-year-olds (unemployed and claiming job seeking allowance for more than six months) and the long-term unemployed in regions with high unemployment. In October 2009 a one billion pounds program, the ‘Future Jobs Fund’ was introduced. The aim was to create 150,000 new jobs, 100,000 of them for young adults and 50,000 in areas with high unemployment. However, funding to the programme was stopped in May 2010 by the new coalition government in the wake of the new austerity budget. From March 2011 employment agencies were prevented from referring additional jobseekers to join the programme.

Limited financial resources, unclear strategy

Formulating an evaluation of the measures introduced by the UK to face the recent economic downturn is a difficult task. In particular, it is hardly possible to identify a clear strategy aimed at combating the negative effects of the recession. The reason for this is certainly the fact that the UK was hit by the crisis through three different channels. Due to the tight dependence of the British economy on the financial and banking sector, great effort was expended in supporting the banking system and stabilising the credit markets.²⁵ This has constrained initiatives aimed at contrasting negative demand shocks. Since the early outburst of the financial and economic crisis, the UK has been lacking resources that would have been needed to stimulate the economy and to prevent the rise in unemployment. This has resulted in fragmented pattern of policy interventions. Equally noticeable is the lack of substantial investment in a coherent package of ALMP. Measures put in place consisted of a set of very specific programmes targeted to prevent the surge of unemployment for specific categories of workers. The intervention aimed to improve the efficiency of PES has contributed to foster re-employment of many jobseekers. However, over the period 2007-2009 the number of

²⁵ According to Ministero dell’Economia e delle Finanze (2010), the British government’s intervention addressed to support the financial sector has accounted for 18.98% of GDP in 2008, versus 0.8% of GDP in Italy and 7.5% of GDP in Germany.

jobseekers registered with Job Centre Plus has increased by more than 75%, against an increase in staff by less than 5%, putting employment services under a severe shortage of resources. (OECD (2010a)). Moreover, policies focused on training, re-training, and increasing employability may support job-reallocation but do not create *per se* new jobs. In an economic climate where firms react to the crisis by reducing hours worked, the recovery is likely to be characterised by a reversion of this trend without a substantial increase in the number of vacancies. It has also been argued that indirect forms of intervention aimed at assisting businesses in their financial planning (including restructuring and the management of redundancies and working-time change) may have added a further incentive to more aggressive job-destruction compared to Germany and Italy (Grimshaw and Rafferty (2011)).

After the parliament elections in May 2010, a new conservative-liberal government went in office. The new government's agenda, primarily focused on fiscal consolidation, has prescribed in great haste a wide set of austerity measures.²⁶ As we noted, the Future Jobs Fund -one of the few ALMP widespread forms of intervention- was immediately dismissed. Further savings measures are promoting major spending cuts in the ministries, cuts in funding to higher education and its institutions, and cuts to employment in the public sector. The radical revision of the British government's fiscal policy has generated a heated debate on the appropriateness of the measures introduced to promote fiscal consolidation, and on the apparent lack of attention to the performance of the labour market (Bell and Blanchflower (2010)). What is evident is that, in a climate of financial distress and economic recession, a wide-scale and swift revision of public spending –along with its related welfare and labour market policies- just contributes to increase uncertainty about (i) the extent and the timing of the recovery of the British economy and (ii) the consistency of the British employment strategy for the near future.

3. Discussion

In the first part of this paper we reviewed the effects of the recent financial and economic crisis on the German, the Italian, and the British economies. The impact of the global financial crisis was clearly stronger in the UK than in Germany and Italy due to the greater economic integration. UK banks were hit particularly hard by the housing crisis. Germany was also affected by the banking crisis, but it managed –through rapid response and by benefiting from the American rescue operations– to survive the banking crisis relatively leniently. Italy was not afflicted by a banking crisis, but was hit particularly hard by the global recession. Later in the paper we found that these countries have adopted different employment strategies to tackle the consequences of the economic

²⁶ The June and October budget statements for 2010 announced spending cuts for £85 billion over four years. These cuts include, for instance, large spending cuts of up to 25% in the public sector, sharp cuts in expenditures for social security, the reduction or elimination of a number of subsidies for families with children, along with raising VAT to 20%.

downturn. The United Kingdom relied on the automatic adjustment mechanism of its labour market. Italy and Germany, instead, also promoted intervention to prevent employment levels from falling, yet with different results. In this second part of the paper we discuss some of the issues raised over our case-study analysis, focussing in particular on: (i) the effectiveness of short-time working schemes, and (ii) the relationship between youth unemployment and education and training policies.

3.1 The effectiveness of short-time working schemes

Reduction in hours worked was one of the most common and widespread effects of the global recession in the European labour markets, especially in the manufacturing sector. Germany, Italy, and the United Kingdom have all registered a significant reduction in hours worked during the crisis. Firms' labour hoarding behaviour, as well as the expansion of short-time working programmes, have contributed to this phenomenon preventing employment levels to drop even sharper than was initially expected in the UK and Italy and to rise slightly in Germany.

In response to the crisis, the United Kingdom's strategy has relied on the self-adjustment mechanisms of the labour market. Intervention was directed to assist job-reallocation and providing advice and support (*e.g.* through the Fast Response Service, and the Skills Hubs) to businesses and employees involved in restructuring operations. However, it has been argued that this type of intervention might have equally incentivised workers' retention as well as redundancy.²⁷ The UK did not manage to limit the rise in unemployment, especially not among the most vulnerable groups of the younger and less qualified, for which there existed already special programs before the crisis. The expenditure and the participation rate in ALMP were very low before the crisis and remained so even after the crisis began. Only very late after the unemployment rates had risen substantially the UK responded with activation measures, which then were immediately stopped again when the new conservative-liberal government came into power in 2010.

Germany and Italy, instead, have expanded the eligibility, conditionality, and generosity criteria of pre-existing short-time working schemes funded by their respective governments in the attempt to prevent employment levels from falling. Evidence shows that both countries succeeded in this objective, but it is undeniable that the German labour market has largely outperformed the Italian one. While Italian employment levels fell significantly, German employment kept increasing all along 2008, registered only a minor decline over 2009, and started to increase again since the first quarter of 2010. Even unemployment has increased considerably less than in Italy. There are various concurrent factors that may contribute to explain the difference in the performance of the two

²⁷ See Section 2.3.

economies.²⁸ In this section, we shall concentrate exclusively on the effects of labour market policies, with a focus on short-time working schemes and their interaction with other institutions that characterise the differences between the German and the Italian labour markets.

STW in Germany and Italy within a cross-country comparison

The advent of the recent recession has revived the international debate on the effectiveness of short-time working schemes as counter-cyclical policies for the labour market. STW schemes are currently operative in 25 out of 33 OECD countries. Cahuc and Carcillo (2011) conduct a cross-country analysis estimating the impact of STW take-up²⁹ rates on employment and unemployment in the recent recession. They find that the STW schemes have a beneficial impact, helping to maintain employment and reduce unemployment rates, even though this effect is significant for permanent workers, but not for temporary workers. Using international evidence, the authors present an analysis of the correlation between STW take-up rates with the criteria regulating eligibility, conditionality, duration, and the generosity of STW schemes. The authors also consider the connection between STW take-up rates and other labour market institutions and regulations such as employment protection, and the generosity of unemployment benefits. It is interesting to observe that, even within a context of wide cross-country variation across the criteria regulating STW schemes, the German Kurzarbeit and the Italian CIG display fairly similar features including: (i) permissible reduction in working hours, (ii) average cost of STW for employers, (iii) index of employment protection, (iv) unemployment benefits replacement rate, and (v) generosity of the wage-subsidy provided by the government. Following the outburst of the economic crisis, the criteria that regulate Kurzarbeit and CIG have converged even closer.³⁰ Both the German and the Italian governments set as their priority the introduction of measures aimed at maintaining employment through short-time work. The take-up rates of the two countries' STW schemes have both increased to around 3%: among the highest levels within the OECD system. Nevertheless, the difference in the performance of the German and the Italian labour markets is striking. This suggests that there are other factors contributing to the German success story.

Hijzen and Venn (2010) present further international evidence on the impact of STW schemes on employment in response to the recent recession. Their empirical methodology makes use of a difference-in-differences approach exploiting (i) cross-country variations in the take-up rates of STW programmes, and (ii) pre/post-recession variations of these take-up rates. Take-up rates are measured

²⁸ These can be related, for instance, to demand-driven impulses as a consequence of Germany's export-strategy oriented towards expanding foreign markets, and based on the production of goods of higher technological intensity.

²⁹ Take-up rate is defined as the number of workers benefitting from a STW scheme with respect to the total number of employees in a given economy. (Discrepancies in international comparisons may arise when different systems have very different eligibility criteria to enrol on a STW scheme, as not all employees are similarly eligible).

³⁰ For instance, the maximum duration of the STW scheme, much shorter in Germany before the recession (6 months) was extended up to Italian levels (24 months) in 2009, even if for a limited period of time.

in full-time equivalent (FTE), which accounts for the intensity in the use of STW programmes in terms of reduction of working hours, rather than number of employees covered by the schemes.³¹ Exploiting the variation of FTE take-up rates before and after the recession, the authors estimate that the use of short-time work schemes in the recent recession displayed a significant positive effect on employment levels of permanent workers, but did not have any effect on temporary employment. These findings are consistent with the Italian and the German experience.

The empirical evidence presented by Hijzen and Venn (2010) allows us to identify some interesting differences between the role played by the German Kurzarbeit and the Italian CIG over the recent recession. In the first instance, CIG take-up rates were already fairly high before the recession, compared to the Kurzarbeit. Therefore, a relatively higher increase in the Kurzarbeit's take-up rate at the beginning of the recession seems to have generated a stronger impact in the German labour market, while the CIG was put under strain. In the second instance, the FTE take-up rate of the CIG appears to be twice as high as the Kurzarbeit, denoting that the CIG was used with far higher intensity in terms of hours reduced. However, aside from firms' voluntary labour hoarding behaviour, we need to remark that the German labour market has made use of other measures of internal flexibility that have generated a strong contribution to the reduction of working-time. In order to gather a better understanding of this phenomenon, and its relevance to the comparison between the German and the Italian experience, we need to focus on the institutional environment within which their two short-time working schemes operate.

Fairly similar programmes operating in two different institutional set-ups

Even though STW take-up rates are very similar in Germany and Italy, the two schemes have been used in two different ways in the two countries. As we noted in Section 2.1, the average reduction in working hours covered by the Kurzarbeit has settled around 30% in 2009, with a very small fraction of workers working less than 75% of their regular working time.³² Disaggregate data on the distribution of working-time reduction per-employee is not available for Italy. However, Gatto and Tronti (2010) provide evidence suggesting that reduction of working-time per-employee has been more dramatic in Italy, with a significant increase in the number of workers covered by CIG at zero-hours (temporary unemployed).³³ It is evident that the CIG has been put under much more severe strain than the Kurzarbeit.³⁴ However, evidence does not seem to suggest that the difference in the use of the two STW schemes is driven by regulation criteria, or other specific features of the schemes. We suggest, instead, that the institutional environment in which these two schemes operate

³¹ FTE take-up rates are defined as: Total STW hours / (Total hours worked + Total STW hours).

³² Boysen-Hogrefe and Groll (2010) also highlight that the government subsidised German short-time work scheme has played an important, yet not pivotal role in reduction of working time over the Great Recession.

³³ See Section 2.1.

³⁴ This is also confirmed by the dynamics of working time (see Figure 3). While in Germany hours worked per-employee began to rise after the second quarter of 2009, Italian hours worked have stabilised on low levels and have not given any sign of recovery yet. At the same time, the number of CIG hours authorised for 2010 has increased even higher (see Figure 5).

is a far more important factor affecting their utilisation intensity and their effectiveness in maintaining employment. In other words, we argue that the difference in the use and in the performance of Kurzarbeit and CIG should be investigated in the specific context of the labour markets they operate. To this extent, we identify two fundamental elements that differentiate the Italian labour market from the German labour market. These relate to: (i) the structure of the employment security system, and (ii) the availability of instruments of internal flexibility as auxiliary devices to adjust working hours according to changes in firms' product demand.

- (i) Concerning the first point we can observe that, while the German labour market regulation grants comprehensive unemployment insurance to workers, the Italian labour market substantially fails to provide job-security.³⁵ As argued in Berton *et al.* (2009), deregulation and liberalisation in the Italian labour market were not matched by the creation of devices to protect workers from the risk of unemployment, especially those employed in atypical contractual agreements.³⁶ Since Italian workers are less protected from the loss of income caused by unemployment, there is pressure for the CIG scheme to take over the role of surrogate employment insurance device, even granting substantial support to zero-hours (temporary unemployed) workers. In the same fashion, the extension of eligibility criteria to workers employed through atypical contractual agreements can be interpreted as an attempt to grant a form of income support to categories of workers who cannot rely on any other job-security device.
- (ii) In the second instance, while in the Italian context the CIG is the only institution able to support short-time working, the German Kurzarbeit has been combined with a wide range of alternative devices promoting internal flexibility at a firm level. Thus –aside from labour hoarding not subsidised by government's STW schemes– the Italian economy could rely exclusively on the CIG system.³⁷ German firms, instead, had the option to choose amongst alternative measures of internal flexibility, such as the working-time accounts amongst the most important. The role of the Kurzarbeit was crucial in this process, but only in combination with the other internal flexibility instruments available in the labour market.³⁸

Co-determination versus centralised bargaining

A closer look at the organisation of the dialogue between social partners provides the opportunity to gather further insights about the performance of the Italian and the German labour market. With respect to many aspects of internal flexibility, collective bargaining at sector-level only defines the general framework of the dialogue between social partners. The effective stipulation of agreements

³⁵ Eligibility to unemployment benefits is restricted to a very narrow range of workers in Italy.

³⁶ The authors aptly named this phenomenon *flex-insecurity*.

³⁷ Gatto and Tronti (2010) document that non-CIG labour hoarding has had a relevant but shorter impact on reduction of working-time, while the number of CIG authorised hours has kept increasing in 2010.

³⁸ As noted in Section 2.1, survey evidence documents that in 2009 working-time accounts were used by more companies than the Kurzarbeit as devices to reduce working-time.

(often) takes place at firm-level through negotiations between management and works councils, *i.e.* elected employees' representatives. This institutional set-up, characterised by strong social partnership, and shielded by strict employment protection legislation, has proven to be very favourable to the introduction of internal flexibility measures at firm-level. Worked out at the firm level, these measures can be tailored according to firms' needs, and in agreement with employees. The introduction of working-time accounts since the early 1990s is a prime example. Within this environment, the reduction of working-time was introduced through the combination of different instruments, easing the pressure on the *Kurzarbeit*,³⁹ and allowing for the preservation of very high employment levels over the last economic crisis.

The German experience contrasts with the Italian case, where collective bargaining takes place predominantly at a centralised level. Evidently this framework does not foster the development of internal flexibility, and unloads the burden of employment protection and income support needs on the national system of shock-absorbers. To this extent, we can also observe that the bargaining power of unions has often affected the regulation and the determination of the eligibility criteria to access the shock-absorbers in a discretionary way (Ferroni and Guerrera (2010)). This process has contributed in the past to bring a series of *ad-hoc* amendments to the criteria regulating access and provision of CIG support outside a coherent framework of intervention.⁴⁰ Moreover, this process has sharpened the divide between insiders, protected by the shock-absorbers, and outsiders deprived from access to short-time working schemes and the measures of income support to the unemployed.

From our preliminary comparison between the German and the Italian experience, we can conclude that the use of short-time working schemes as device to maintain employment was very different in these two countries. In particular, we emphasized that the difference in the effectiveness of this kind of programmes was affected by (i) the institutional environment in which the STW schemes operate, and (ii) the promptness of the government to co-ordinate the STW instrument with existing measures of internal flexibility in the labour market.

3.2 Youth unemployment, education, and training

The recent economic recession has severely hit European labour markets. However, some categories of workers have experienced more difficulties than others in facing the consequences of the economic downturn, such as temporary employed and the young.⁴¹ In this section, we focus on the problem of youth unemployment comparing the experience of Germany, Italy, and the United

³⁹ According to the German law, for instance, firms cannot apply to benefit from the government's STW scheme until working-time accounts are cleared.

⁴⁰ Cahuc and Carcillo (2011) remark that well-functioning STW schemes should: "*commit to stable rules, which may be designed under normal economic conditions –and not during recessions– in order to avoid that in turbulent periods pressure groups require excessively generous schemes, which can be difficult to turn off later on.*" [Cahuc and Carcillo (2011), p.30].

⁴¹ As we argued in the previous sections these two categories tend to overlap.

Kingdom. In particular, we focus our attention on the relationship between youth unemployment and the current debate on policies related to education and training.

[Table 2 about here]

[Figure 6 about here]

As we can observe from Table 2, the effects of economic recession on youth unemployment have been relatively more severe for younger members of the labour force in all the countries considered in our study, yet with some interesting differences. Starting from relatively lower levels, youth unemployment has increased considerably less in Germany (+0.6%) compared to Italy and the United Kingdom (+4.1% in both countries) over 2008-09.⁴² Educational attainment plays a fundamental role in explaining differences across different workers and different economies. Unsurprisingly, young workers belonging to the least educated segments of the labour market perform generally worse in all countries. However, youth unemployment seems to affect skilled workers considerably more in Italy, and considerably less in the United Kingdom. The German labour market is less afflicted by youth unemployment, where differences are not as sharp even disaggregating unemployment rates by education attainment. It could be argued that German and Italian graduates from tertiary education enter the labour market with a delay compared to their British peers, but considering a wider age-range, Figure 6 confirms the trends highlighted in Table 2. In periods of recession, such as the one we are currently experiencing, the demand for education is expected to increase as private individuals delay entry in a sluggish labour market.⁴³ Considering this problem, Pissarides (2010) discusses the evidence in favour of this hypothesis and discusses useful criteria to evaluate the effectiveness of subsidising education as counter-cyclical employment policy. From a social-planner's point of view, subsidising education is cheaper during a recession because the opportunity cost of additional education provision (foregone output of workers engaged in education) is lower due to low aggregate demand and high unemployment levels. However, not only is the private demand for education expected to increase in response to lower foregone wage earnings, but also as a shield against higher risk of unemployment. Pissarides argues that education provision as insurance device against unemployment does not appear to be socially efficient. Other specific devices, such as employment assistance and targeted income support programmes can provide a more adequate and cost-efficient response to grant unemployment insurance over recession times. Empirical evidence assessing the efficiency of education provision over a recession is scanty,

⁴² Some of these divergences may be explained considering differences in cohort dynamics of the younger population in aggregate terms. According to OECD (2010c), the average growth rate of the population aged 15-24 was +0.5% in Germany, -1.0% in Italy, and +1.6% in the United Kingdom over the period 2000-2009.

⁴³ Bell and Blanchflower (2011) report that the number of university applicants in the United Kingdom has increased by 9.7% in 2009 and by 11.6% in 2010.

and the evaluation of this kind of policy device can only be conducted on a speculative level. It is reasonable to conclude that a surge in demand of education provision should be met until the social cost of foregone output is offset. However, in order to avoid the use of education as a less efficient unemployment insurance device, education provision should be paired with unemployment insurance measures aimed at sustaining employment levels and income support for the young.

Other dimensions, such as the duration and type of education provided, need to be considered by the policy-maker. In the remainder of this section we address the issue of education provision analysing the experience of Germany, Italy, and United Kingdom with respect to: (i) higher education, and (ii) vocational training.

Higher education

Over the past few months, higher education has been at the centre of a heated debate both in Italy and the United Kingdom, following the announcement of their respective governments of prospective increases in tuition fees. In the current economic climate, and in the light of the concerns raised in terms of youth unemployment and increase in education demand, the issue raised by the increase in tuition is highly controversial and worth being considered.

The Italian tertiary education university system is characterised by low level of tuition fees, but a less developed student support system. Italy was one of the first countries adhering to the Bologna Process for the reformation of tertiary education in Europe since 1999. Preliminary evidence (Cappellari and Lucifora (2008)) highlights that the reform generated beneficial effects associated to (i) an increase in probability of enrolment, in particular for secondary school leavers belonging to an unfavourable social background, and to (ii) a lower probability of dropping-out from university education. However, the number of students who are completing the first-cycle of their university education beyond the minimum required numbers of years is still very high. Over the academic year 2007-2008, 57.7% of the total number of graduates (52.3% belonging to the reformed 3-year system) did not complete their studies over the prescribed length of time delaying entry in the labour market (Istat (2010)). This issue represents a dead-weight cost within the Italian university system increasing both the private and the social costs of tertiary education, and generating significant congestion externalities as well.⁴⁴ The increase in trend of the enrolment rates in tertiary education over the past decade (ISTAT (2010)), aided by the reforms of the Bologna Process, fostered an increase in the number of Italian university graduates, who are today facing the negative effects of the recession. In the light of this evidence, we suggest that prior to considering a revision of tuition fees, the policy maker should address more urgent issues related to access and organisation of the university system. In the first instance, the Italian secondary-school tracking system does not select efficiently pupils according to ability. Aspirations of Italian students towards tertiary education are

⁴⁴ Brunello and Cappellari (2005) estimate that reducing the pupil/teacher ratio by 10% within an Italian university institution increases employment weighted earnings by 2.4%.

high because the screening device is weak and parental influence very strong.⁴⁵ In the second instance, the Italian university system does not provide students with strong incentives to complete their degree within the pre-set number of years, increasing private and social costs of higher education provision, and creating congestion costs.⁴⁶ Finally, in the absence of a system granting adequate employment insurance for the young, the demand for education is likely to increase for the ‘wrong’ reasons and above the social optimum.

In contrast with the Italian system, the United Kingdom’s tertiary education university system is characterised by high levels of tuition fees and well-developed student support service. Since secondary-school education does not promote early selection of pupils in academic versus vocational tracks, British students take their decision on whether to acquire additional education later in their life compared to their German and Italian peers. Nevertheless, even in this country, evidence shows that attainment of higher education is strongly correlated to family background and income (Machin and Vignoles (2005)). Therefore the British university system remains under different aspects elitist. In spite of this fact, and justified by the high graduate premium associated to university education, (in 1998 and, again in 2006-07) the Labour government introduced a series of reforms aimed at increasing tuition fees. However, paired with adequate increase in loan availability and flexibility, these reforms have not discouraged participation of low income students. The debate has re-heated when the recently formed Conservative government has prospected, in October 2010, the introduction of severe cuts of spending in higher education, removing some of the devices of student income support and allowing universities to apply a further increase in tuition fees. Facing a rapid increase in youth unemployment rate, particularly for the less skilled, these cuts in spending in higher education are subject to criticism for reducing the chance to access university education, in particular for applicants belonging to low family background. However, recent evidence has revealed that the debate on widening participation in higher education should be extended to a re-assessment of the British education system as a whole, with particular attention to earlier-achievement. Chowdry *et. al.* (2008), for instance, demonstrate that it is true that secondary-school leavers belonging to a poorer background are significantly less likely to attend university. However, controlling for attainment, differences in enrolment rates between the richer and the poorer strata of the student population are dramatically reduced. This research suggests that policies aimed at widening access to higher education of students belonging to poor family background should not focus on providing

⁴⁵ Checchi and Flabbi (2006) compare the German and the Italian secondary school systems. Both systems are based on early-tracking along either a vocational or an academic path. The authors demonstrate that while the German system induces selection according to ability, the selection of educational paths in Italy is strongly influenced by family social and economic background.

⁴⁶ Moreover, lower employment perspectives are likely to provide weak students with further incentives to remain at university for longer, delaying access to a tight and sluggish labour market but without enriching their skill-portfolio.

subsidies at the point of entry in higher education, but on addressing the inequalities affecting the secondary school system.⁴⁷

Vocational education and training

So far, we have considered the organisation of formal education systems in Germany, Italy and the United Kingdom. To complete our analysis, we consider now the features of vocational education and training programmes. Vocational education and training, as well as apprenticeship programmes, may be regarded as playing a secondary role in the long-run objectives of a country's growth strategy aimed at boosting the top end of the skills distribution in the labour force. On the other hand, these kinds of programmes are generally easier to adapt to the needs of the labour market, and can play a fundamental role in counteracting the effects of an economic downturn by offering a tighter link between skill-acquisition activities and labour market performance. To this extent, the German system of vocational education and training (VET) offers the opportunity to tell another success story. In 2008, 57.5% of students enrolled in upper secondary education belonged to a VET pathway. The majority of these students access a dual system of schooling and practical training. Practical training is delivered through apprenticeship contracts established directly between the student and the employer. The duration of the apprenticeship is standardised; the apprentice's salary increases over time and corresponds to 33% of the standard salary for the profession the student is training for (Hoeckel and Schwartz (2010)). The requirements for practical training are set according to national standards, however social partners are closely engaged in the design and in the provision of VET. This co-operation between stakeholders allows the VET system to maintain a widely recognised certification of skills. By setting national standards for training, skill-provision is not biased to the employers' specific requirements, yet it is synchronised to the needs of the labour market as a whole. VET provision costs are shared between government funding and private firms. Germany has maintained strong financial support to the VET system even after the beginning of the recession and employers have continued offering apprenticeship contracts.⁴⁸ Thus, the German system of vocational education and training has played a pivotal role in preventing the surge of youth unemployment in Germany. Interestingly, we can observe that one of the fundamental features of this programme is the direct involvement of all social partners: government, firms, and trainees. As we have discussed in Section 3.1, this feature also stands at the basis of the success of the combination of short-time working schemes with measures of internal flexibility in the German labour market. Therefore, social dialogue and negotiation amongst social partners emerge as being recurrent positive features of the German response to the challenges generated by the current recession which is worth taking as reference and example.

⁴⁷ To this extent the abolishment (from January 2011) of the Education Maintenance Allowance, which used to encourage retention in education of young people aged 16-18 represents a more worrying signal than the prospective increase in university fees.

⁴⁸ Evidence is reported by Ha *et al.* (2010), and Bosch (2011).

In contrast with German experience, the Italian and the British approach to the provision of VET appears less homogenous and structured. In the UK, the system of vocational education has experienced a long process of continuous revision under the past decades. This process witnessed a parallel reduction in the provision of apprenticeship schemes and the creation of National Vocational Qualifications (NVQs), designed to certifying existing skills and General National Vocational Qualifications (GNVQs) based on full-time college education. However, the proliferation of these qualifications did not meet recognition in the labour market and represents an educational track associated with very low economic value (Machin and Vignoles (2005)). McIntosh (2005) argues that surveys conducted across firms, systematically report skill-shortage in middle-level jobs, such as skilled manual and associate-professional (technicians and engineers) demonstrating the failure of the British VET system in addressing firms' needs. In their review of VET and training provision in England and Wales, Hoeckel *et al.* (2009) confirm these concerns, observing that in spite of major investment in VET and training policies, there is a substantial mismatch between skill demand and skill provision. Particular criticism is addressed to the complexity of the system of qualifications, which causes a lack of employer's engagement in (i) advising on the design of vocational programmes and (ii) providing VET through apprenticeship schemes. The consequent lack of coordination between stakeholders characterises the British VET system as a very fragmented one, where even policy-evaluation and assessment are very difficult to conduct.

In terms of training provision, the British workforce traditionally receives relatively high levels of training compared to many OECD countries, which are associated to substantial earning premia (Machin and Vignoles (2005)). Moreover, the intensification and expansion of training provision has constituted one of the pillars of ALMP in the UK after the outburst of the recent recession. However, evidence shows that on-the-job training is often provided to workers endowed with previous experience and qualifications (Carone *et al.* (2009)). Therefore –in the lack of adequate monitoring and coordination- the provision of on-the-job training, especially when entirely government-funded, cannot be advocated as a fundamental device to address the lack of skills in the labour force, as unskilled workers can seldom benefit from this policy.

The Italian system lacks of a unitary vocational training body beyond upper secondary education. Since the mid 1990s, mainly with the aid of the European Training Fund, Italy has introduced programmes aimed at fostering training of the labour force. These programmes include vocational education, re-training, as well as guidance and counselling (Brunello *et al.* (2010)). The programmes are managed by regional authorities, which exercise a strong degree of autonomy in the organisation of training initiatives. Flexibility in the organisation of training bears obvious benefits, such as the opportunity to tailor programmes to the specific skill-demand needs of different Italian regions. On the negative side, the central government cannot pro-actively intervene on the effective use of the

funding provided to local authorities. Brunello *et. al.* (2010) document a high degree of heterogeneity in the allocation of funds for training initiatives across Italian regions. Beyond different training needs, this heterogeneity also reflects different ability to invest in training efficiently, which constitutes source of concern. The authors identify a significant positive impact of regional training policies on individual training. Nevertheless, the size of such training policies impact is small. Moreover, even though regional training generates positive effect on workers' wage earnings, this effect declines rapidly due to depreciation of human capital. Evidence on the difference in the marginal benefit of training across firms also indicates that small firms –propelling engine of the Italian economy- are less likely to promote training initiatives compared to large businesses. ISFOL (2010) reports that, since the beginning of the economic crisis, training initiatives promoted by firms have considerably decreased. Adult participation in continuous vocational training also declined. Moreover, the training activities promoted tend to be extremely brief and specific. The majority of training initiatives does not lead to any award or certification.⁴⁹ Similar to the British experience, the system of continuing vocational training provision in Italy seems to lack recognition from the market due to its specific nature and, more importantly, from the fragmented way in which it is organised, delivered, and certified.

A few common factors seem to emerge from our brief review of issues in education and training provision in Italy, Germany, and the United Kingdom. Italy and the United Kingdom have been recently involved in a debate on the increase of university tuition fees, which has raised no little concern along with the advent of the Great Recession. The organisation and the criteria of contribution to university education are very different among the two countries. However, even accounting for such differences, we suggest that the focus of the debate should be shifted on secondary education. Particular issues to be addressed at this level in both countries should be targeted at: (i) recruitment and retention of students into secondary education, (ii) design of mechanisms easing educational attainment on the basis of academic ability rather than income and family background. Turning our attention to the role of vocational education and training, we highlighted that both the Italian and the British system could benefit from the example of the German experience in terms of: (i) dialogue between social partners in the design and provision of VET programmes, and (ii) certification and recognition of skills in the labour market.

4. Conclusions

In this paper we considered the employment effects of the 2008-09 financial and economic crisis in three large European countries: Germany, Italy, and the United Kingdom. We identified the main channels through which the crisis has spread in the three countries and we reviewed the policy

⁴⁹ ISFOL (2010) reports that out of the number of participants to continuing training initiatives, only 20% receives a certification of such activity.

responses of these countries with a focus on their labour markets. We observed that in all the three countries, labour hoarding and reduction of working-time have prevented employment levels from falling more than what initially expected. However, this result was achieved in different ways, and with different degrees of intensity. The United Kingdom widely relied on the automatic adjustment mechanisms of its labour market, directing policy intervention in support to businesses and employees involved in re-structuring and re-organisation, as well as investing effort in improving the performance of public employment agencies and their partners. Germany and Italy, instead, supported employment retention making use of government funded short-time working schemes. However, due to a higher level of debt, and a tighter budget constraint, Italy kept its policy intervention rather limited. Germany, instead, promoted a more comprehensive rescue package. The German strategy was the most successful, and has allowed a faster recovery. By the beginning of 2011 GDP returned to pre-recession levels, while employment has steadily risen above pre-recession levels over the recovery: a ‘German job miracle’.

Turning our attention to policies to maintain employment, we observed that Germany and Italy heavily relied on well-established government schemes to support reduction of working-time, and employee retention, through the provision of wage-subsidies to firms. Compared to other short-time working schemes operating in OECD countries, the German Kurzarbeit and the Italian CIG display fairly similar regulation criteria. However, these programmes were used with different utilisation intensity. We argued that a comparison of the effectiveness of such programmes cannot neglect to consider the institutional environment they operate within. In the German labour market, the Kurzarbeit has interacted with a wide range of other measures of internal flexibility at firm-level, such as working-time accounts the measure used the most often by companies. This favourable environment, combined with anti-cyclical fiscal policy intervention, has supported employment retention and job re-allocation to an extraordinary extent. In Italy, instead, the CIG short-working scheme constituted the only device to promote employment retention. Moreover, in contrast with the German case, the CIG operated in an environment deprived of a comprehensive system of unemployment insurance, and more significantly affected by labour market segmentation. In this environment, the CIG was put under pressure to provide income support to temporary unemployed workers, and extend coverage to an increasing share of the labour force employed in atypical contractual positions. The combination of these factors has limited the CIG’s effectiveness, and has created concerns about the Italian recovery, which could be afflicted by a long wave of unemployment when the duration of short-time working support will eventually expire.

In the final part of this paper we considered the issue of youth unemployment and its relationship with the current debate on education and training policies. We observed that young workers have been hit the hardest over the recent recession, especially in Italy and in the United Kingdom. However while in Italy youth unemployment has significantly increased for the skilled, in the United

Kingdom the less educated have been more exposed to the risk of unemployment. We connected this evidence to the opportunity of using education provision as counter-cyclical policy, focussing in particular on access to higher education. To this extent, we argued the case for a shift of this debate onto secondary education as a device to (i) address unskilled youth unemployment, and (ii) improve the mechanism of selection and access to tertiary education. Finally, we observed that the British and the Italian education systems, even though very different, both lack a solid vocational training programme recognised by the labour market. We remarked that the lack of efficient provision of vocational training in Italy and United Kingdom contrasts sharply with the German experience. In fact, the well-established German dual system of training and apprenticeship has proven very successful in delivering skills valued by the labour market, and has contributed to prevent a surge in youth unemployment during the recent recession.

Tables**Table 1 – Key economic facts 2007-2009**

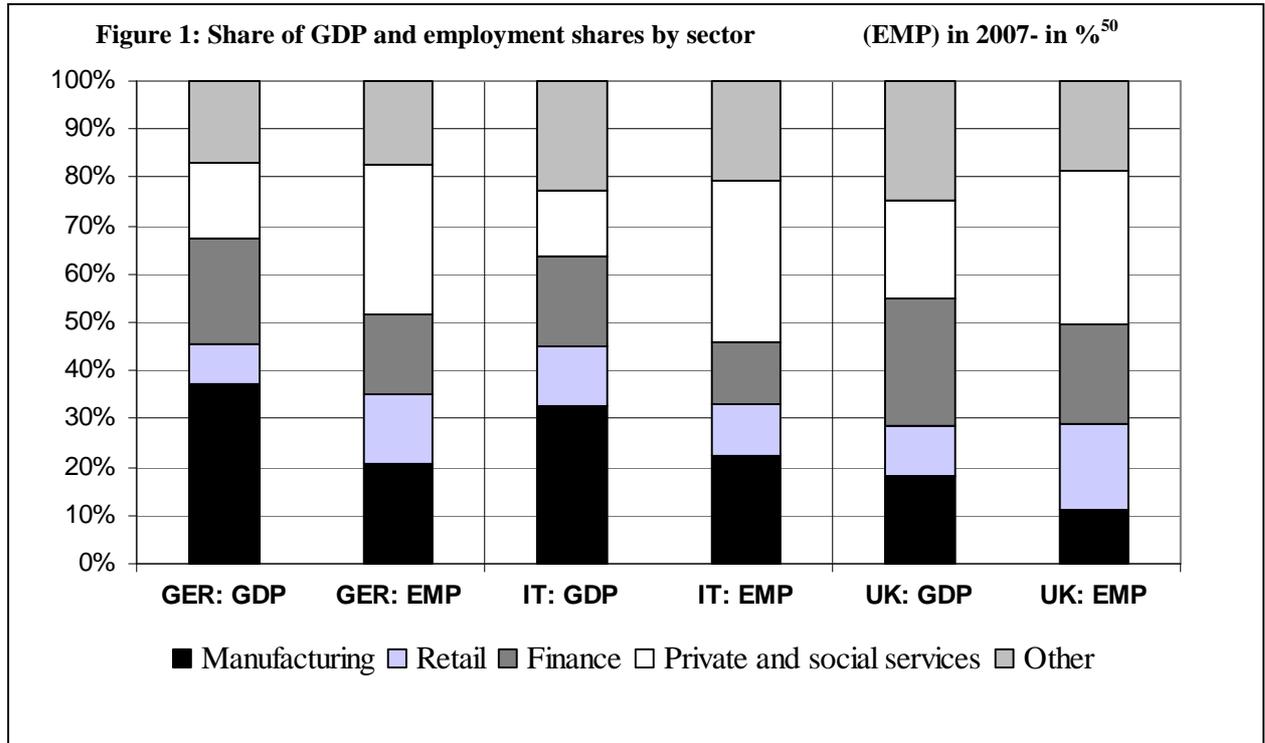
	Germany			Italy			United Kingdom		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
General Government Debt* (% GDP)	65.0	66.0	73.2	103.5	106.1	115.8	44.7	52.0	68.1
Public Deficit* (% GDP)	0.2	0.0	-3.3	-1.5	-2.7	-5.3	-2.8	-4.9	-11.5
GDP growth rate*	2.5	1.3	-5.0	1.5	-1.3	-5.0	2.6	0.5	-4.9
GDP per capita (EU27=100)*	115.8	115.6	-	103.5	101.8	-	116.7	116.2	-
Lab. prod. per hr (EU15=100)*	111.7	111.0	110.0	88.7	89.0	88.9	98.0	96.4	97.8
Households saving rate as percentage of disposable income ⁺	10.8	11.2	11.3	8.2	8.6	8.4	2.2	1.5	7.0
Households indebtedness*	93.0	89.4	-	56.8	56.6	-	153.5	152.6	-
Unemployment rates as percentage of labour force ⁺	8.3	7.2	7.4	6.2	6.8	7.8	5.4	5.7	7.6
Current account balances as percentage of GDP ⁺	7.7	6.7	5.0	-2.4	-3.5	-3.1	-2.7	-1.5	-1.3

Source: * =Eurostat, ⁺ =OECD.**Table 2 – Unemployment rates by age and educational attainment (%)**

	people aged 15-24				people aged 25-54				
	2007	2008	2009	2008-09	2007	2008	2009	2008-09	
GER	up to Low Secondary	15.5	13.5	13.9	0.4	18.0	16.6	17.1	0.5
	Upper Secondary	8.6	8.0	9.0	1.0	7.7	6.8	7.2	0.4
	Tertiary	-	-	-	-	3.4	2.9	3.1	0.2
	<u>Total</u>	<u>11.7</u>	<u>10.4</u>	<u>11.0</u>	<u>0.6</u>	<u>7.9</u>	<u>6.9</u>	<u>7.2</u>	<u>0.3</u>
ITA	up to Low Secondary	22.5	23.3	27.3	4.0	6.7	7.8	8.9	1.1
	Upper Secondary	19.0	19.9	24.1	4.2	4.4	4.9	5.9	1.0
	Tertiary	19.3	23.8	29.6	5.8	4.7	4.7	5.7	1.0
	<u>Total</u>	<u>20.3</u>	<u>21.3</u>	<u>25.4</u>	<u>4.1</u>	<u>5.3</u>	<u>6.0</u>	<u>7.0</u>	<u>1.0</u>
UK	up to Low Secondary	26.4	27.9	32.6	4.7	6.7	7.4	10.5	3.1
	Upper Secondary	11.2	11.3	15.7	4.4	3.8	4.2	6.1	1.9
	Tertiary	7.5	9.5	13.2	3.7	2.1	2.3	3.2	0.9
	<u>Total</u>	<u>14.3</u>	<u>15.0</u>	<u>19.1</u>	<u>4.1</u>	<u>3.8</u>	<u>4.1</u>	<u>5.8</u>	<u>1.7</u>

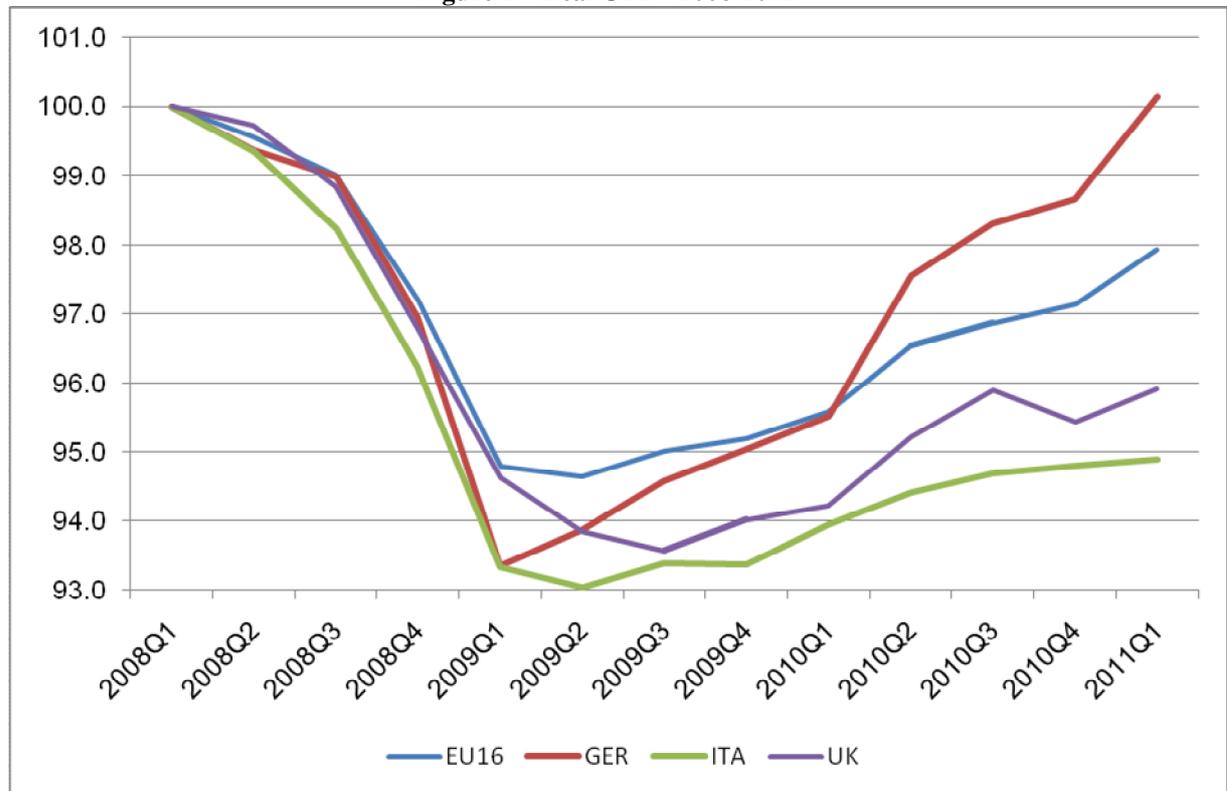
Source: OECD.

Figures



Source: GDDC Klems database.

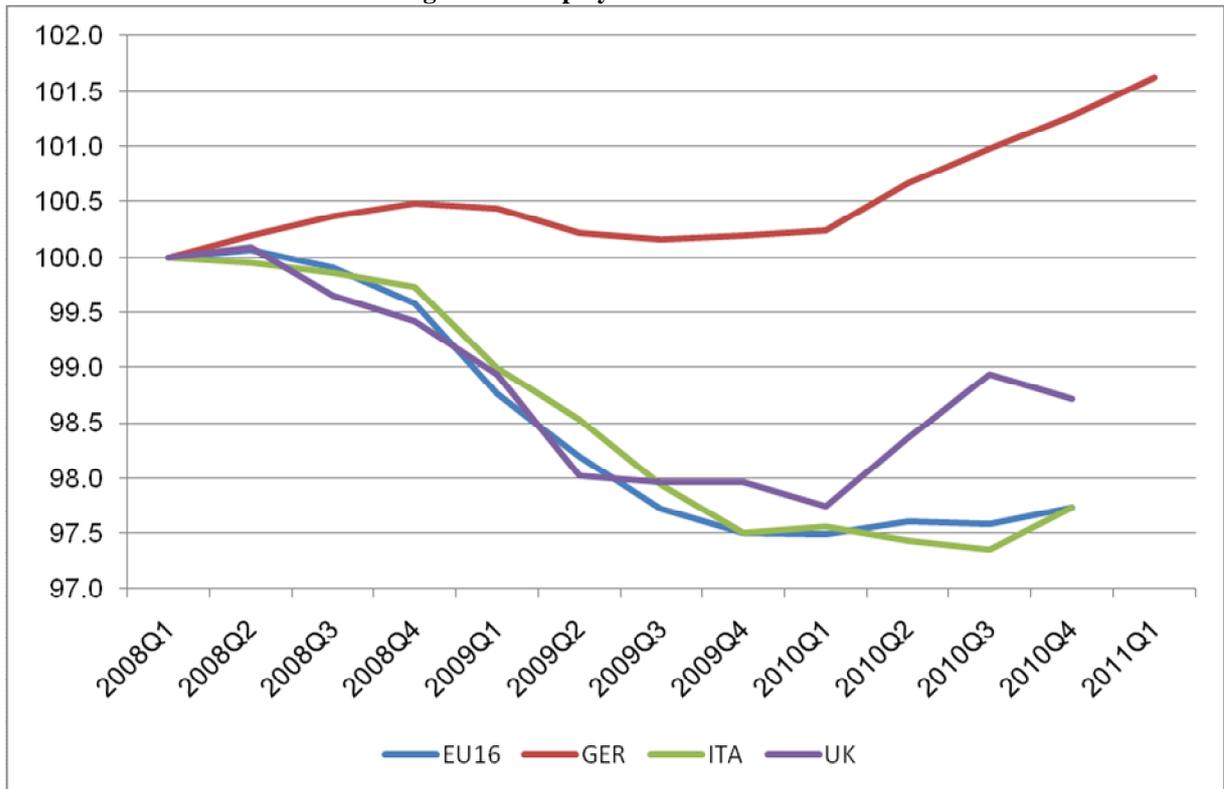
Figure 2 – Real GDP - 2008-2011



Source: Eurostat.

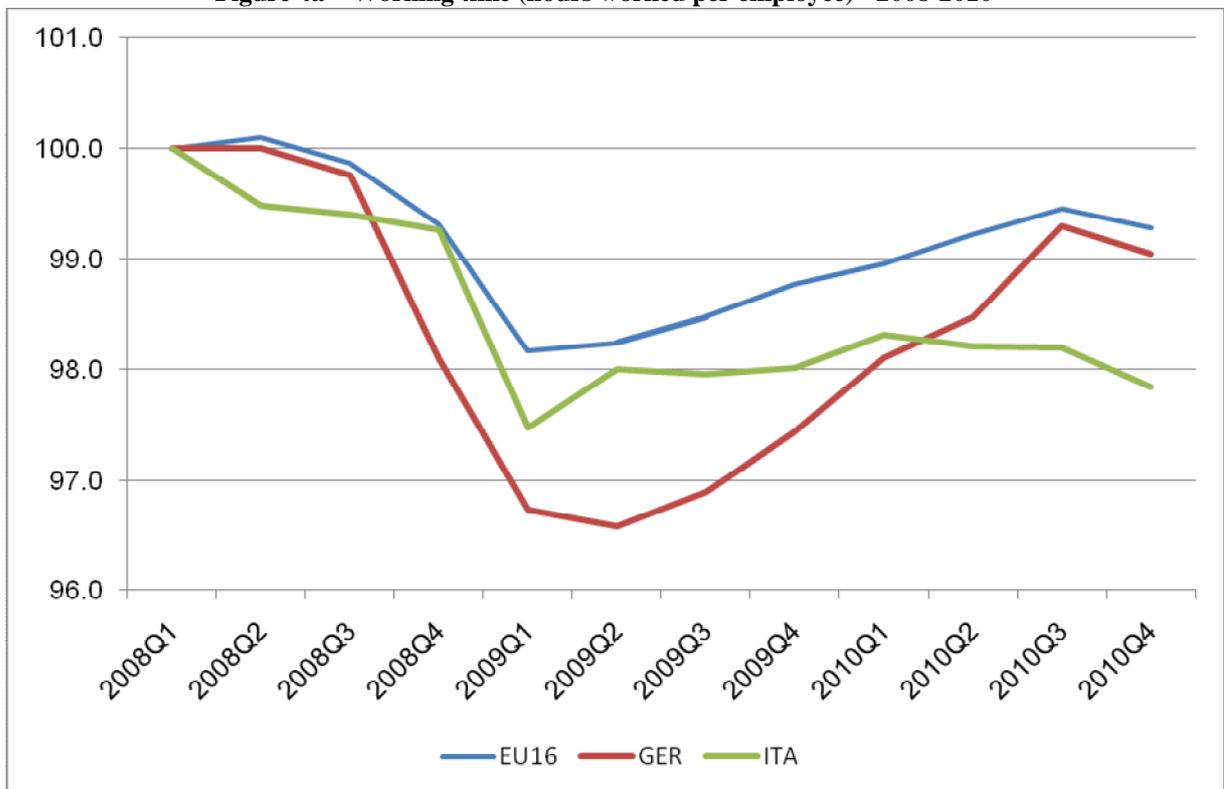
⁵⁰ The category “Finance” includes Insurance, Real Estate, and Business Services. The category “Other” includes Agriculture, Mining, Utility Supplies, Construction, Hotel and Restaurants, and Transport, Storage, and Communication.

Figure 3 – Employment - 2008-2010



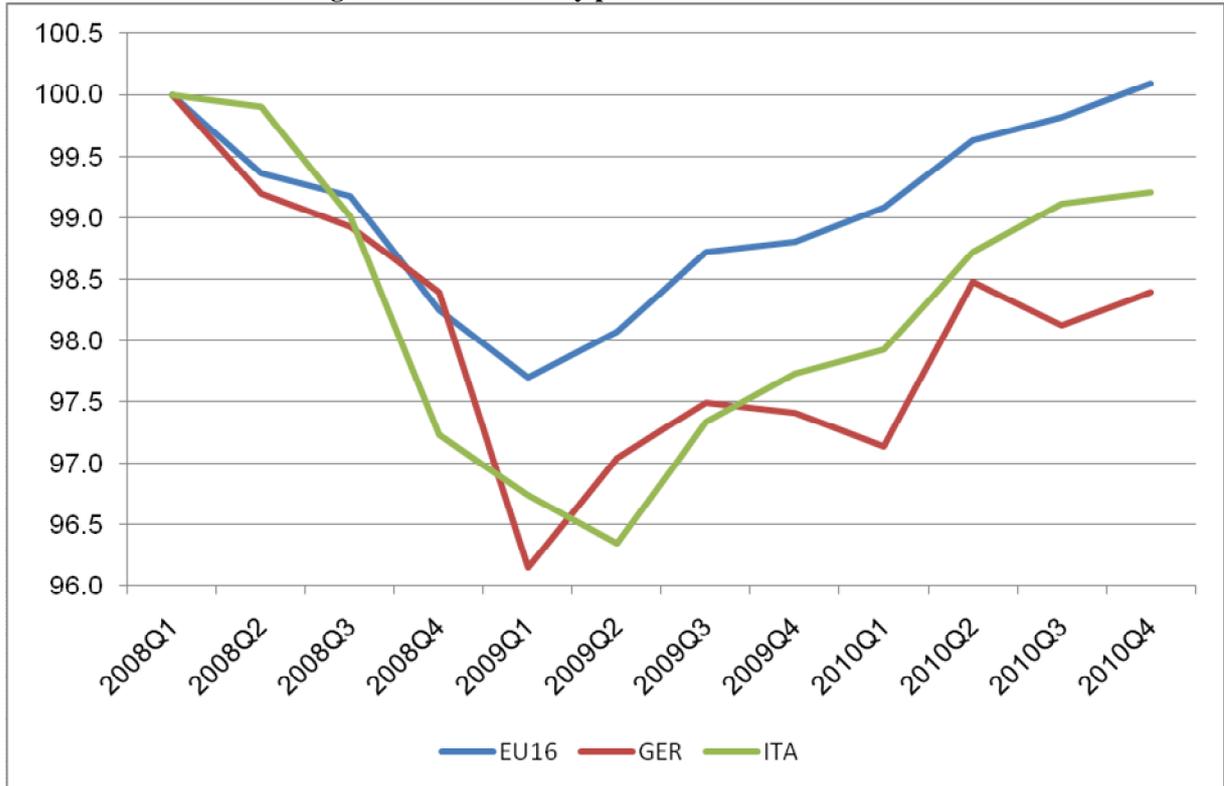
Source: Eurostat.

Figure 4a – Working time (hours worked per employee) - 2008-2010



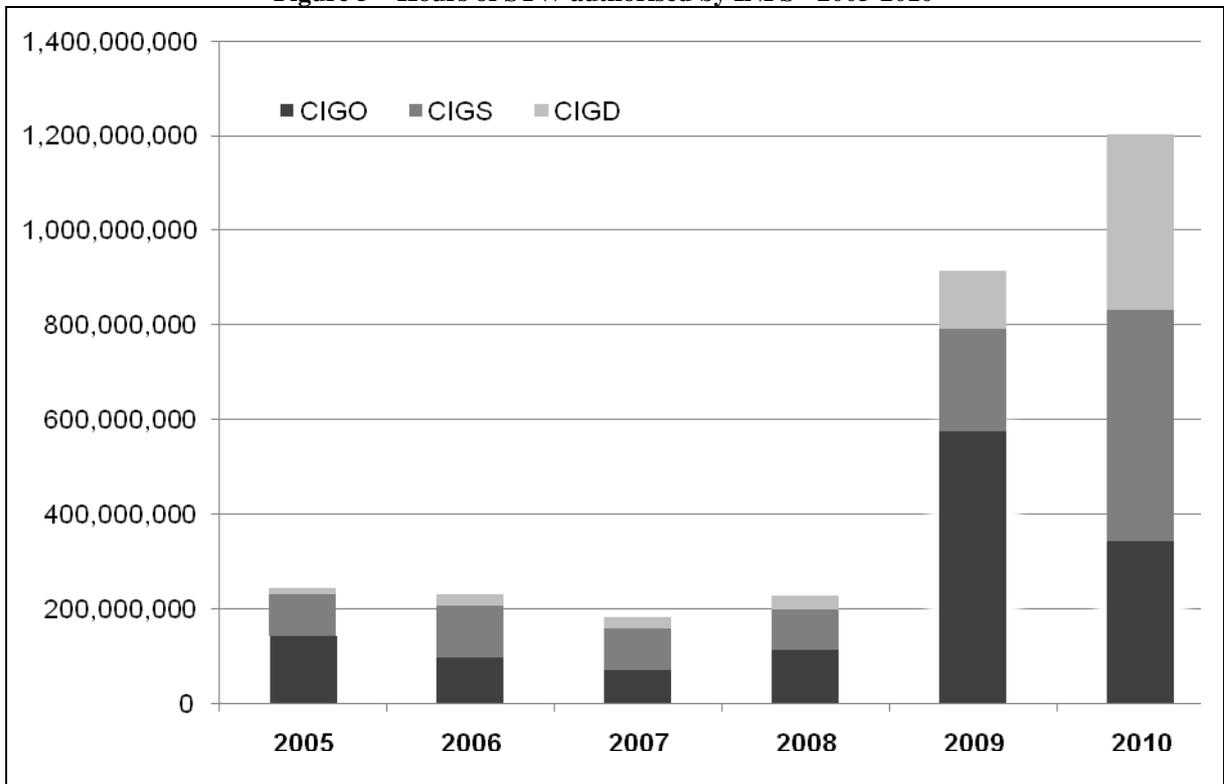
Source: Eurostat.

Figure 4b – Productivity per hour worked - 2008-10

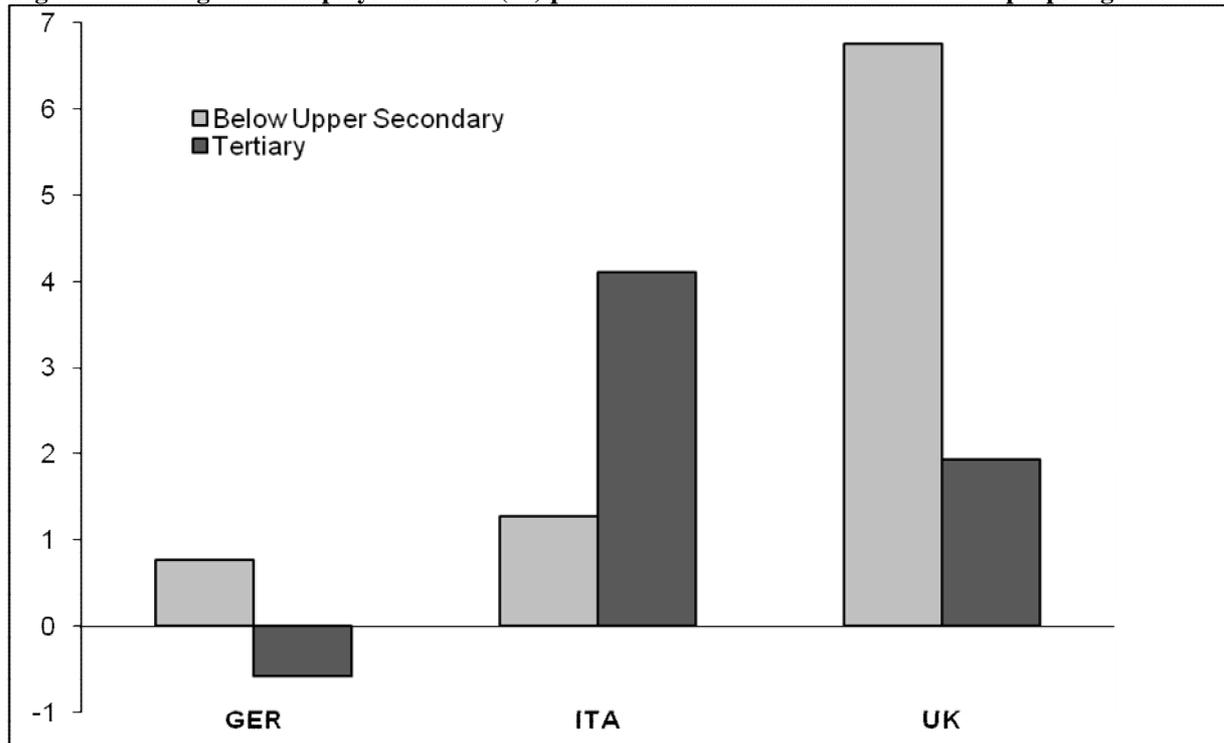


Source: Eurostat.

Figure 5 – Hours of STW authorised by INPS - 2005-2010



Source: INPS.

Figure 6 – Change in unemployment rates (%) per educational attainment 2009-2008 - people aged 15-29

Source: OECD.

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