

A Service of

ZBW

Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre for Economics

Cahuc, Pierre; Carcillo, Stéphane; Rinne, Ulf; Zimmermann, Klaus F.

Working Paper Youth Unemployment in Old Europe: The Polar Cases of France and Germany

IZA Discussion Papers, No. 7490

Provided in Cooperation with: IZA – Institute of Labor Economics

Suggested Citation: Cahuc, Pierre; Carcillo, Stéphane; Rinne, Ulf; Zimmermann, Klaus F. (2013) : Youth Unemployment in Old Europe: The Polar Cases of France and Germany, IZA Discussion Papers, No. 7490, Institute for the Study of Labor (IZA), Bonn

This Version is available at: https://hdl.handle.net/10419/80526

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



WWW.ECONSTOR.EU

IZA DP No. 7490

Youth Unemployment in Old Europe: The Polar Cases of France and Germany

Pierre Cahuc Stéphane Carcillo Ulf Rinne Klaus F. Zimmermann

July 2013

Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor

Youth Unemployment in Old Europe: The Polar Cases of France and Germany

Pierre Cahuc

Ecole Polytechnique, CREST, IZA and CEPR

Stéphane Carcillo

OECD, Sciences Po (Paris) and IZA

Ulf Rinne

IZA

Klaus F. Zimmermann

IZA and Bonn University

Discussion Paper No. 7490 July 2013

IZA

P.O. Box 7240 53072 Bonn Germany

Phone: +49-228-3894-0 Fax: +49-228-3894-180 E-mail: iza@iza.org

Any opinions expressed here are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but the institute itself takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The Institute for the Study of Labor (IZA) in Bonn is a local and virtual international research center and a place of communication between science, politics and business. IZA is an independent nonprofit organization supported by Deutsche Post Foundation. The center is associated with the University of Bonn and offers a stimulating research environment through its international network, workshops and conferences, data service, project support, research visits and doctoral program. IZA engages in (i) original and internationally competitive research in all fields of labor economics, (ii) development of policy concepts, and (iii) dissemination of research results and concepts to the interested public.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

IZA Discussion Paper No. 7490 July 2013

ABSTRACT

Youth Unemployment in Old Europe: The Polar Cases of France and Germany

France and Germany are two polar cases in the European debate about rising youth unemployment. Similar to what can be observed in Southern European countries, a "lost generation" may arise in France. In stark contrast, youth unemployment has been on continuous decline in Germany for many years, hardly affected by the Great Recession. This paper analyzes the diametrically opposed developments in the two countries to derive policy lessons. As the fundamental differences in youth unemployment are primarily resulting from structural differences in labor policy and in the (vocational) education system, any short-term oriented policies can only have temporary effects. Ultimately, the youth unemployment disease in France and in other European countries has to be cured with structural reforms.

JEL Classification: J24, J38, J68

Keywords: labor policy, labor market institutions, Great Recession, youth unemployment, minimum wages, demographic trends, vocational education and training, employment protection

Corresponding author:

Ulf Rinne IZA P.O. Box 7240 53072 Bonn Germany E-mail: rinne@iza.org

1. Introduction

The Great Recession broadly affected labor markets around the world, but individuals in vulnerable positions were strongly hit—including the young generation. Although the labor market entry has posed major challenges for youths in many countries already before the crisis, the Great Recession has intensified cross-country differences. Among others, Bell and Blanchflower (2010, 2011a, 2011b) analyze this new rise in youth unemployment after the crisis with a particular focus on the United Kingdom and the United States. In fact, while in some countries youth unemployment was hardly affected during these times of trouble, it dramatically increased elsewhere and reached new record highs. This demonstrates the crucial role that institutional settings and public policies can play in influencing school-to-work transitions.

France and Germany are two extreme cases in Europe. Whereas Germany has hardly been affected by rising youth unemployment, France is one of the European countries where a "lost generation" of young individuals who enter the labor market under the current adverse economic conditions could become a tragic reality. How to effectively tackle the youth unemployment problem has therefore become a major concern and policy issue in Europe—not only because of its immediate negative impacts, but also because early adulthood unemployment creates long-lasting scars affecting labor market outcomes much later in life (Schmillen and Umkehrer, 2013).

However, before starting any policy action, it should be clear *how* youth unemployment can be tackled most effectively. It seems possible to select measures that successfully target the roots of the problem only on the grounds of sound empirical evidence. Hence, this paper aims to provide such evidence. More specifically, we focus on the question why Germany performs exceptionally well in terms of youth unemployment while France does not. As the interactions of economic and demographic factors as well as labor market institutions are central in explaining any cross-country differences in youth unemployment, our analysis considers the following aspects separately: a) labor demand patterns, the economic structure and economic growth, where we focus on the Great Recession's impacts; b) labor market institutions, labor policies, education and vocational training designed to enhance the labor market attachment of disadvantaged youths; and c) demographic trends, in particular the size of younger cohorts determining young people's labor supply.

The remainder of this paper is organized as follows. Section 2 presents stylized facts which lead us to conclude that France and Germany are indeed two polar cases in the debate about rising youth unemployment in Europe. Sections 3, 4 and 5 then explain the differences in youth unemployment between the two countries by separately analyzing the Great Recession's impacts, labor market institutions and labor policies for youths, and demographic trends. Whereas we summarize concrete policy proposals to fight youth unemployment in France in Section 6, we discuss policy responses and general lessons in a broader perspective in Section 7. Finally, we conclude in Section 8.

2. The Polar Cases of France and Germany

Figure 1 shows the development of youth unemployment in the United States and Europe from 2000 to 2012. Clearly, there has been a strong rise in youth unemployment after the beginning of the Great Recession in late 2008. This has been the case on both sides of the Atlantic, but there are significant differences in the respective levels. Already during the early 2000s, European youth unemployment had been about twice as high as in the United States. The Great Recession's impacts have to some extent reduced this gap, but the European Union's figures still exceed those of the United States by far. By the end of 2012, youth unemployment in the European Union stood at 23.3 percent, while it was at 16.3 percent in the United States.¹

Within the European Union, however, there is a substantial degree of heterogeneity in youth unemployment. France and Germany can be viewed as two extreme cases in this regard. On the one hand, France basically follows the pattern that is also present for the entire European Union, albeit on a slightly higher level. By the end of 2012, the French youth unemployment rate was at 25.5 percent. On the other hand, youth unemployment in Germany has been falling relatively steadily since its peak in the beginning of 2005. Even the Great Recession had only a modest and short-term impact; and by the end of 2012, the youth unemployment rate stood at 7.8 percent in Germany.

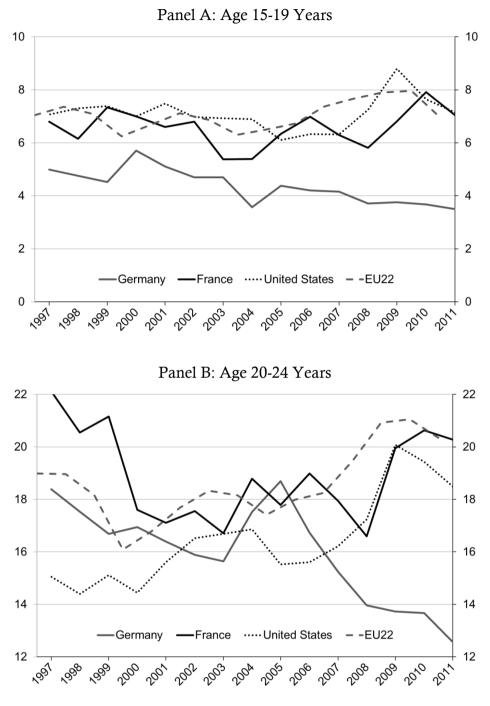
¹ The global youth unemployment rate, i.e., the unemployment rate of all young individuals aged 15 to 24 years in all developed and developing regions of the world, stood at 12.4 percent in 2012, which corresponds to an increase of about 1 percentage point since 2007 (ILO, 2013).



Notes: Seasonally adjusted monthly unemployment rate of persons aged 16 to 24 years in selected countries (in percent).

Even though unemployment is a key socio-economic indicator, it only provides a partial view of the situation of the youth to the extent that it does not provide information about individuals outside the labor force. Many of those aged 16 to 24 are still in education, some are inactive, and as a result the share of active youth in this age group is often small. Besides, in some countries students often combine work and education and therefore often look for a job. For this reason another useful indicator is the share of youth neither in employment, education, or training, also called the NEET rate. This category is made of youth either looking for a job (while not studying), or inactive (often discouraged).

FIGURE 2: NEET RATES



Source: OECD Education database.

Notes: The NEET Rate is the share of individuals in the age group neither in employment, education, or training.

Figure 2 shows how this rate evolved in the United States and Europe from 1997 to 2011 among youth aged 15 to 19 years (Panel A) and 20 to 24 years (Panel B). Actually, trends and differences across countries turn out to be similar than those observed for the unemployment rate. For the youngest group, the NEET rate is of comparable size between the United States and Europe, but it is strikingly lower in Germany compared with the European average and notably France, but also compared with the United States. The difference has been relatively constant and only slightly growing over the 2000s, and Germany now features a rate at 3.5 percent that is twice as low as in France.

Among those aged 20 to 24, the NEET rate appears 2 to 3 times larger than for the younger group and much more volatile in all countries, reflecting the fact that many young people finish initial education and enter the labor market at this age. However, the same differences can be observed: a declining rate in Germany, now almost twice as low than in France and Europe at 12.5 percent in 2011. For this age group, France now features one the highest rates in Europe, at 20.5 percent, just behind Spain, Italy and Greece (between 25 to 30 percent). However, it is worth to note that the striking differences in this age group emerged since 2005, when France and Germany shared at a similar NEET rate.

France and Germany are thus two polar cases with respect to youth unemployment and inactivity in Europe. However, what factors can explain this diametrically opposed pattern? As pointed out above, the Great Recession had different impacts on youth unemployment in the two countries. Hence, we analyze this issue in greater detail in the next Section.

3. Impacts of the Great Recession

If the impact of the Great Recession had been different between France and Germany, this could at least partly explain the different development of youth unemployment in these two countries. Figure 3 thus displays the Great Recession's impact on GDP. Accordingly, output declined to a similar extent on both sides of the Atlantic, although countries in the European Union were on average even more strongly affected than the United States. However, the largest output drop was in all countries in early 2009.

When comparing output decline between France and Germany, the impact of the Great Recession in terms of GDP was apparently weaker in France. The output drop in Germany even exceeded the one in the United States, and also the average in the European Union. On the other hand, recovery took place earlier and was stronger in Germany than in France and the average in the European Union. Already by 2010, Germany performed just as well as France and the United States when using the respective GDP pre-recession values as a benchmark. Hence, the Great Recession's impact on GDP was not too markedly different between the countries considered here. If anything, one may conclude that its immediate impact on output was smaller in France than in Germany, but recovery was both earlier and stronger in Germany. However, the crisis' impacts on the labor markets may have been different.

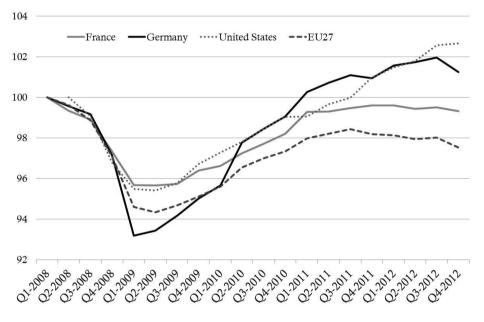


FIGURE 3: GROSS DOMESTIC PRODUCT (GDP AT PEAK=100)

Source: OECD Statistical Database.

Notes: The pre-recession peak is Q1-2008 for all countries except for the United States, where it is Q2-2008. GDP by quarter in millions of US dollars, volume estimates, fixed PPPs, OECD reference year, annual levels, seasonally adjusted.

And indeed, Figure 4 shows that the labor market impacts of the Great Recession greatly varied between countries. In terms of adult unemployment rates, these have been generally increased since late 2008, but the extent to which they increased—and subsequently decreased (or not)—is very heterogeneous. Adult unemployment in the United States strongly increased. It more than doubled from roughly 4 percent to more than 8 percent in 2009 and 2010. But since then it has been falling, and by the end of 2012, it was at 6.5 percent. In contrast, adult unemployment in the European Union did not increase that strongly. Although it reached a similar magnitude of about 8 percent in 2009 and 2010, it had already been at a higher level than in the United States before the

crisis started. Importantly, adult unemployment has continued to increase since 2011 in the European Union while it has been falling in the United States.

Adult unemployment in France closely resembles the pattern observed for the entire European Union. It has therefore noticeably increased during the Great Recession and has not been falling since then. By the end of 2012, adult unemployment in France was at 9 percent. In stark contrast, there has been only a very modest crisis' impact on adult unemployment in Germany. Its steady decline since the peak in 2005 was just briefly interrupted, but otherwise adult unemployment continued to fall. By the end of 2012, it stood at 5.1 percent.

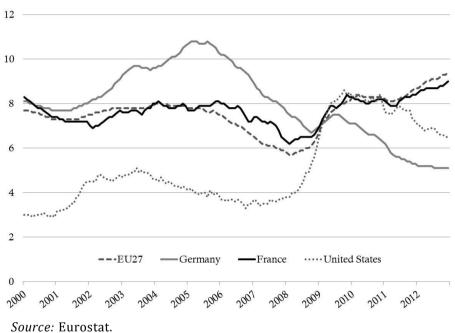


FIGURE 4: ADULT UNEMPLOYMENT RATE

The resilience of Germany's labor market to the Great Recession is very remarkable—and exceptional. Sometimes labeled as a "new economic miracle," the country's success story has received a lot of attention and several studies analyze its underlying mechanisms. Representative for this literature, Rinne and Zimmermann (2012, 2013) argue that the interaction of different factors resulted in employment adjustments mainly at the intensive margin. Among these factors is the specific nature of the economic shock that hit Germany (mainly export-oriented sectors were affected), the concrete policy responses during the critical period (e.g., short-time work), the significant reforms that had improved the

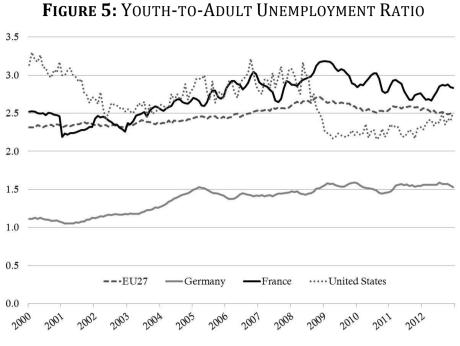
Notes: Seasonally adjusted monthly unemployment rate of persons aged 25 to 74 years in selected countries (in percent).

functioning of the labor market ("Hartz reforms"), and long-term demographic trends that are expected to result in shortages of skilled labor.

Although the Great Recession's impact in terms of GDP was similar in France and Germany, the French labor market was much more strongly affected than the German one. This is true in terms of both adult unemployment and youth unemployment. Although this fact can explain at least part of the differences in youth unemployment between the two countries that we observe today, it is important to consider in addition the development of the youth-toadult unemployment ratio over time. By doing so, two additional questions can be answered. First, one can assess whether adults and youths were affected to a similar extent by the crisis. Second, the youth-to-adult unemployment ratio can be viewed as an indicator of potentially existing structural problems with the labor market integration of youths in a given country.

Figure 5 displays the youth-to-adult unemployment ratio during the period from 2000 to 2012. For the European Union, this ratio has practically been constant over time, rising slowly until 2008 and falling thereafter. During this period, youth unemployment has been about 2.5 times higher than adult unemployment. Importantly, we do not observe any substantial impact of the Great Recession on this ratio in the European Union. Therefore, the two age groups were similarly affected by the crisis. In contrast, the youth-to-adult unemployment ratio substantially dropped in the United Stated at the start of the Great Recession. While it had been at around 3 until 2008, it fell to less than 2.5 afterwards. In the United States, the crisis thus affected youths to a much smaller extent than adults.

The youth-to-adult unemployment ratio in Germany has been on a very exceptionally low level, close to 1 in the early years. Although significantly increasing during the early 2000s, it has been at around 1.5 since 2005 when the labor market reforms took place. We do not observe any effect of the Great Recession. In France, the ratio is notoriously high, with values rising up to over 3 in 2009, but falling below 3 thereafter. The ratio remains above the European Union's average, however. Hence, there clearly exist structural differences between France and Germany that deserve further investigations. It is therefore important to analyze the labor market institutions and labor market policies that shape the labor market integration of youths in these two countries. This is precisely what is done in the next Section.



Source: Eurostat, own calculations.

Notes: Ratio of the seasonally adjusted monthly unemployment rate of persons aged 16 to 24 years to that of persons aged 25 to 74 years.

4. Labor Market Institutions and Labor Policies

Institutional settings and public policies can play a crucial role in influencing school-to-work transitions. As shown above, the French youth-to-adult unemployment ratio—as well as the NEET rate—are about twice as high as in Germany. We therefore assess below which labor market institutions and labor policies can explain these structural difference. Our analysis focuses on the following issues: a) vocational education and training; b) minimum wages and employment protection; and c) activation measures and labor policies. In addition, as the labor market entry poses a particular challenge for low-qualified youths, a special focus of our subsequent analysis is on this population group.

Vocational Education and Training

Education plays a key role in the risk of becoming unemployed or inactive. For instance, in France 85 percent of the NEETs have not studied beyond secondary school and 42 percent have not gone beyond college. This is all the more worrying as the school dropout rates are particularly high and are getting worse.

More than 150,000 young people leave the school system each year without any qualifications in this country, or 20 percent per year group.

Many studies show that in particular vocational education and training is able to smooth the transition from school to work (see, e.g., Eichhorst et al., 2012, for an overview). Hence, it is not surprising that training in combination with practical (subsidized) work experience in the private sector is the most efficient way to ensure sustainable unsubsidized employment, whereas employment in the public sector has no significant impact (Card et al., 2010).

Next to Austria and Switzerland, Germany has a dual apprenticeship system. Besides the standard curricula, these three countries have established a professional system which allows combining work experience, on-the-job training and classroom teaching (the latter is usually provided in a special type of school such as the *Berufsschule* in Germany). In these countries, this form of vocational training makes up the main path of transition from school to work. For example, about two thirds of the youths completing general schooling each year enter the dual apprenticeship system in Germany; and about one fifth participate in full-time vocational schooling (Biavaschi et al., 2012). In addition, the share of apprentices who stay in the same firm after completing their apprenticeship has been about 60 percent in recent years (Grunau, 2011). These figures demonstrate the importance and the success of this system in Germany.

German apprentices sign a training contract that last about three to four years with a firm and alternate between school- and firm-based training. Over 50 percent of all companies with at least one employee have acquired an entitlement to train. Apprenticeship training is basically provided in all sectors of the economy. Firms bear the costs of work-place training facilities and pay apprentices a standardized salary (about €600 to €700 Euro per month in 2011). The firms' incentives to provide this form of training mainly include the accumulation of firm-specific human capital, the possible use as a screening device and demonstrating social commitment.

The returns to completing dual apprenticeship training are significant in Germany. Not only that roughly two third of those who successfully complete training subsequently enter employment, but participants also have a faster entry into the labor market when compared to participants in school-based vocational training (Parey, 2011). Furthermore, the dual apprenticeship system significantly improves wages and employment stability when compared to individuals with "schooling only" (Adda et al., 2011). After about 3 to 4 years, about 80 percent are employed (of whom 60 to 70 percent are in "stable" employment relationships). Their wage profile is similar to university students in early years,

but flatter in later years. For example, Clark and Fahr (2001) estimate substantial annual returns to apprenticeship training and also provide evidence supporting the transferability of training across occupations.²

Nevertheless, and even though the German dual apprenticeship can be regarded as a success story, there are also challenges that this system faces. One challenge is related to problems of demand and supply. More specifically, employers' willingness to train is correlated with economic conditions and the availability of apprenticeship positions follows a cyclical pattern. Furthermore, firms prefer committed and engaged apprentices. They mostly require a minimum level of "trainability" which some youths are unable to meet. Hence, there are limited options for low-qualified youths. Youths with low schooling have no other training option than participating in the dual apprenticeship system. Youths unable to enter this system thus face a high risk of marginalization. The solution to this problem is the extensive provision of "preparatory" training programs, although the most disadvantaged do not benefit (Caliendo et al., 2011).

As a more general challenge, dual apprenticeship systems rely on the broad support of employers, trade unions and the government regarding regulation and financing. In particular, their success critically depends on the trade unions' willingness to accept apprenticeship contracts which are paid below the level of standard contracts—in exchange for a commitment from employers to offer practical training. The support of the government involves not only developing special vocational schools and training qualified teachers, but also offering preparatory training for young people who are not yet ready to start apprenticeship after leaving school. This "pre-apprenticeship" training is essential for low-qualified young people—in particular, when the access to the dual system is as competitive as in Germany (Caliendo et al., 2011). As a consequence of such a broad support, vocational training via apprenticeships is widely recognized by young people, their parents and society as a solid pathway to employment in Germany, Austria and Switzerland.

² Winkelmann (1997) compares training for young workers in the United States and Germany. A more recent survey by Lerman (2013a) also summarizes the returns to apprenticeship training in a number of countries (including Germany). Lerman (2012) reviews studies according to which apprenticeship training can be effective even in the United States. Finally, Lerman (2013b) makes a strong argument in favor of learning from "best practices" in this regard.

An apprenticeship system is also in place in France. Students pursuing the vocational track of the education system can either enroll in full-time vocational schooling or in on-the-job apprenticeships with part-time study at training centers. Both routes prepare for the same tests and diplomas. The number of young people beginning apprenticeships has doubled over the last 20 years (Cahuc et al., 2013). However, the increase in the number of apprenticeships during the last 10 years is entirely due to relatively qualified young people, i.e., youths who already have an equivalent or better diploma than the secondary school leaving exam. Although various forms of direct subsidies to employers hiring apprentices exist (e.g., exemptions from social security contributions, hiring bonuses), in particular SMEs are reluctant to hire apprentices. Course contents and expectations for the final exam prove to be an additional challenge. While reading and mathematics can be regarded as essential skills for the future of any professional, the performance in primarily academic subjects should not be decisive to obtaining a diploma as long as the purpose of the diploma is not the access to higher education. In this context, it seems important to involve the social partners as it is, for example, the case in Germany.

Alet and Bonnal (2011) argue that the major difference between the French and the German system is the respective image of apprentices. While this pathway is viewed as a solid alternative in Germany, apprenticeships in France suffer from the perception that this training path is only an inferior alternative to full-time vocational schooling. Although this perception has slightly changed recently, improvements in this regard are slow. This is also what one should expect as the German apprenticeship model was developed over decades through close and continuous dialogue with the social partners, aimed at establishing and regularly updating training courses for each type of qualification. Every detail is discussed and negotiated, including the duration of apprenticeships, expectations for the final exam, course content and pay levels.

Minimum Wages and Employment Protection

Labor costs can be an important barrier in the transition from to school to work—in particular for low-qualified job seekers. A number of studies show the detrimental employment effects for young people of a minimum wage that is too high (Abowd et al., 2000; Kramarz and Philippon, 2001; Neumark and Wascher, 2008). As a general rule, studies on labor demand effects estimate that a 1 percent increase in labor costs reduces employment of the low-skilled, who make up a large proportion of the unemployed youths, by 1 percent (Cahuc and Carcillo, 2012).

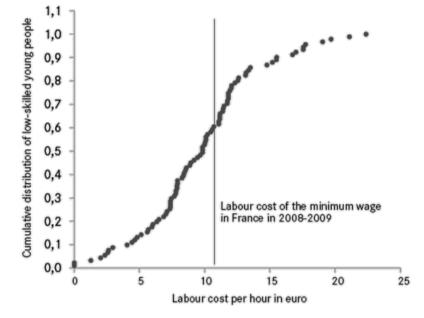
France is characterized by labor costs at the level of minimum wage that are the highest amongst the OECD countries with regards to 20 year-old workers (Cahuc et al., 2013). Monthly labor costs at the level of the current French minimum wage amount to \notin 1,616 for a full-time position. This creates not only a substantial barrier to access employment for low-skilled job seekers, but it is also a complex issue for society. A large number of young people in France are not sufficiently qualified to be as productive as the minimum wage requires them to be.³ This certainly limits their chances of finding a job. While other countries allow a reduced minimum wage for young people in comparison to adults, France has not adopted such an approach—apart from certain exceptions.⁴

Germany follows a different approach. There is no national statutory minimum wage, but minimum wages are negotiated by industry and occupation among the social partners. In principle, the state does not intervene in this process. Figure 6 displays the result: Excluding apprentices, 30 percent of low-skilled young Germans who are employed have labor costs that are between \in 7 and \in 10. A related argument in this context is that job quality has deteriorated in general, with an increased segmentation of the German labor market and an increased share of low-pay work. However, these issues are not particularly agerelated, but are rather driven by skill levels and occupational change (Eichhorst et al., 2013b, p.81). The vast majority of skilled younger workers still have good prospects of entering open-ended contracts in Germany. This is also the case for those who successfully complete a dual apprenticeship.

³ About 900,000 individuals in France have no formal educational degree (Cahuc et al., 2013).

⁴ For example, exceptions are in place for individuals aged less than 18 years and apprentices. However, these situations remain marginal.

FIGURE 6: LABOR COSTS OF EMPLOYED YOUTHS IN GERMANY (2008/2009)



Source: German Socio-Economic Panel (GSOEP), own calculations.
Notes: Excluding those youths in apprenticeships, in terms of hourly labor costs in 2008/2009. Explanation: 55 percent of young skilled Germans cost their employer less than the equivalent cost of the minimum wage in France.

In the French context, it appears desirable to reduce labor costs for lowskilled youths. This could be done, for example, by increasing the existing reductions of social contributions paid by employers at the minimum wage level, or upgrading the permanent in-work benefit for low-wage workers. A number of studies show that reductions in social security contributions create many more jobs if they are specifically targeted at lower wages (see, e.g., Cahuc and Carcillo, 2012). A reduction in social security contributions for higher wages results mainly in wage increases and has little effect on employment. This is the reason why a specific targeting at lower wages is essential to the success of a policy aimed at stimulating the creation of low-skilled jobs for young people.

Ideally, the labor market gradually compensates for inequalities resulting from different initial education levels by allowing non-graduates to acquire professional skills on-the-job. However, this is not the case in France. Unlike many comparable countries, where inequalities resulting from different initial education levels gradually dissolve, the French labor market actually tends to emphasize these inequalities. This is related to the strong and increasing segmentation of the French labor market. On the one hand, there are employees in permanent contracts, protected by many rules, often leading to contentious litigation, and not effectively protecting employees while at the same time resulting in very uncertain outcomes for employers. On the other hand, there are employees on fixed-term contracts for which the terms and costs are precisely known in advance. Importantly, this dualism has increased since the early 1990s and today more than 90 percent of employees are hired on fixed-term contracts.⁵

In France, this segmentation of the labor market affects young people more strongly than in other countries. In 2009 fixed-term employment was five times higher for young people than for adults (Cahuc et al., 2013). This ratio is around 3 in Denmark, the United Kingdom and on average in the OECD countries. Only in Austria, Germany and Switzerland this ratio exceeds the one in France, but this can be explained by the fact that these three countries have a long tradition of dual apprenticeship systems, see above. In these countries temporary employment of young people is thus not necessarily synonymous with job insecurity, but rather part of their vocational education.

Historically, the increasing use of fixed-term contracts in France coincided with rising youth unemployment. The reason why a strict separation between permanent and temporary jobs may create additional unemployment is quite obvious. As terminating an open-ended contract is expensive and accompanied by legal complexity which causes great uncertainty, French firms increasingly rely on fixed-term contracts. This type of employment is much easier to handle, and therefore firms are adopting it more and more. Many firms therefore "turn" towards short, or even very short fixed-term contracts, and in between two fixedterm contracts, workers register as unemployed. However, finding a new job takes time, especially when the public employment service is poorly equipped to cope with the permanent inflow of job seekers. Thus, the intensive use of fixedterm contracts tends to inflate unemployment figures. Fixed-term contracts moreover only act as stepping stones towards permanent contracts for qualified workers (Junod, 2006). This causes related problems. For example, it is difficult to find accommodation or to get a mortgage for workers on fixed-term contracts-workers with permanent contracts are preferred.

The French labor market is thus characterized by a high minimum wage and a strong segmentation. This hampers school-to-work transitions, in particular

⁵ Behaghel and Postel-Vinay (2003) show that the chance that an employee on a given date will be unemployed a year later have doubled in France from the late 1970s to the late 1990s—but only for those who with less than five years of work experience. Moreover, this change can be almost entirely attributed to the increased use of fixed-term contracts in the French labor market.

those of low-qualified youths. While labor market segmentation has also been increasing in Germany, effects on youths are not as detrimental. This can be attributed to labor costs, but to a large extent also to the dual apprenticeship system absorbing many youths in a critical stage of their career.

Activation Measures and Labor Policies

Many countries have compulsory and specific systems requiring the public employment service to encourage low-qualified young job seekers to resume their studies, apprenticeships or training courses.⁶ No such system currently exists in France. Supporting young people aged between 16 and 25 years who experience difficulties in finding a job is entrusted to the "local missions," which are local counseling and placement offices managed by associations. In 2011 these local missions welcomed 1.35 million young people, of whom almost 500,000 were seen for the first time. However, their support is far from intensive. In 2008 only 11 percent of the low-qualified youths had at least one interview per month, and 50 percent had only three interviews in 12 months (DARES, 2010). This is a very unsatisfactory way to build a trusting relationship. Moreover, almost 40 percent of the young job seekers wait more than one year before going to a local mission; and more than 60 percent who have crossed the threshold are still searching for a job or training position six months later.

Hence, current structures and methods in France that are dedicated to support young people in difficulty are insufficient. The public employment service needs to be urgently given the means to take charge in a targeted and intensive manner for these young people, so that a professional relationship which looks at all employment aspects can be established (including accommodation, transport, self-confidence, training and job search). In addition, regular evaluations by independent experts examining the counterfactual situation ("What would have happened in the absence of the program or intervention?") using modern scientific tools and methods should be established. Also organizational structures need to be improved. Currently the state, but also local governments and the national employment agency contribute to the financing of the local missions. However, the local missions are mainly autonomous and in a *de facto* monopoly situation (Cahuc et al., 2013).

⁶ Examples include the *September Guarantee* in the United Kingdom, the *Youth Guarantee* in New Zealand, and similar programs in Denmark and Germany. See Section 7 below for a broader discussion of the *Youth Guarantee* at the European level.

There are various measures of active labor market policy available that aim to enhance the employment prospects of unemployed youths, but their effectiveness (or performance) is relatively unclear. This is not the case for Germany, where an evaluation study of ALMP draws a rather positive picture (Caliendo et al., 2011). In particular wage subsidies, job search assistance and short- and medium training programs yield persistent and stable employment effects for participants. However, public sector job creation schemes are found to be harmful for participants. This finding is line with international evidence (Card et al., 2010). Caliendo et al. (2011) additionally note that for low-qualified youths, an approach which focuses more strongly on the intermediate objective of participation in further education or training should be considered.

France is furthermore an exception amongst European countries by restricting its minimum income scheme to people who are 25 years and older. Almost everywhere in Europe, young people have access to a minimum income scheme before turning 25 years.⁷ In France, the fear of additional inactive youths that may result has hindered the consideration that young people under 25 years can enter the minimum income scheme. The consequence is that currently half of the poorest 20 percent of the French population are between 15 and 29 years old (Cahuc et al., 2013). Bargain and Doorley (2013) estimate that with a new system combining transfers to both workless and working poor, the extension to the youths under 25 years does not create significant disincentive effects.⁸

Disincentive effects are in particular unlikely to result if the minimum income scheme is used as a means to activation, i.e., providing income support while at the same time requiring active search efforts or participation in training programs. The examples of Germany and other countries show that minimum income schemes cannot only be used to facilitate the autonomy of the young people, but also as a means of activation.⁹ Additional elements of such an approach should thus be a monitoring program for young people without formal training, as well as a mandatory system of advice and counseling activities.

⁷ The only two other exceptions are Spain and Luxembourg.

⁸ This finding is in line with Gurgand and Margolis (2008) whose conclusions also tend to minimize the "inactivity trap explanation" (except for single mothers).

⁹ For example, and in contrast to conventional wisdom, receiving benefits is not associated with lower mobility (Tatsiramos, 2009).

5. Demographic Trends

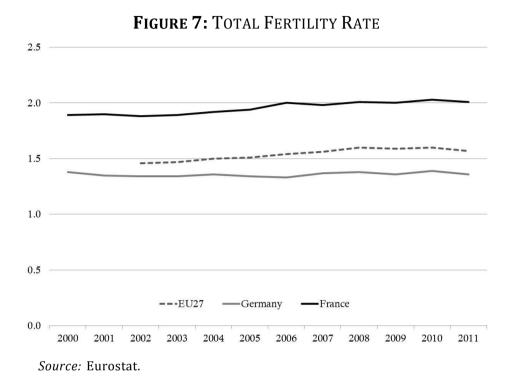
Population aging is a worldwide phenomenon that affects not only European countries. For example, also Asian countries face this challenge because of policy measures (e.g., the one-child policy in China) or gender preferences (in favor of sons). Lutz et al. (2008) investigate the future paths of population aging that the world's regions are likely to follow. They show that—with the exception of Sub-Saharan Africa—the population in all regions of the world will significantly age until 2100. However, the extent to which populations will age varies across the globe¹⁰—and it also varies within Europe. The fertility rate is an important factor underlying this heterogeneity. Moreover, this rate is crucial when assessing cross-country differences in youth unemployment as the size of younger cohorts directly determines young people's labor supply.

Figure 7 therefore displays the development of the total fertility rate in the European Union, France and Germany over the last decade. While French fertility has been slightly increasing to values around 2 in recent years, fertility in Germany has been constantly below 1.4 and thus substantially lower. The fertility rate in the European Union is between the French and the German one, although it has also been slightly increasing to values around 1.6 in recent years.

These fertility rates are one crucial factor determining population aging. Figure 8 shows the (projected) population sizes by age group in France and Germany in 2010, 2030 and 2050, respectively. Indeed, these projections look significantly different for the two countries. Whereas the French population is projected to increase from roughly 65 million in 2010 to more than 73 million in 2050, the opposite is true for the German population which is expected to shrink from almost 82 million to less than 71 million during this period. Hence, the size of the French population is expected to exceed that of Germany by 2050. This is mainly resulting from Germany's lower fertility rate. Figure 7 clearly shows the declining sizes of younger age groups in Germany over time. Importantly, not only the youngest cohorts are affected, but also the age groups up to the age of 59 years. In contrast, the size of these age groups is projected to remain virtually stable in France. However, older age groups are projected to increase in size in

¹⁰ According to Lutz et al. (2008), the world's regions that are presumably most strongly affected by population aging are Japan/Oceania, Western/Eastern Europe, the European Soviet Union and the China region. North America is likely to be affected to a somewhat smaller extent, but its population aging will probably still exceed that of Pacific Asia, Latin America and South Asia.

both countries until 2050. Increases are projected to be particularly strong for the oldest cohorts (i.e., 65 years or over in France and 75 years or over in Germany).



The future demographic trends put Germany therefore in a relatively advantageous position in terms of youth unemployment when compared to France. Cohort sizes of youths are projected to decrease. This fact should not be neglected when discussing youth unemployment in a comprehensive context.

Future trends may influence the situation of youths to some extent (e.g., through changes in firms' recruitment strategies), but more directly related to current youth labor supply is the development of recent cohort sizes. Figure 9 therefore depicts the proportion of the population that is aged between 15 and 24 years in recent years. In the European Union as well as in France and in Germany, population shares of youths have been decreasing at least since 2007. These decreases are moreover similar in magnitude (about 1 percentage point).

Hence, there are no indications that recent changes in the size of cohorts of labor market entrants play a substantial role in explaining the differences in youth unemployment between France and Germany. Future projections, however, are different for the two countries.

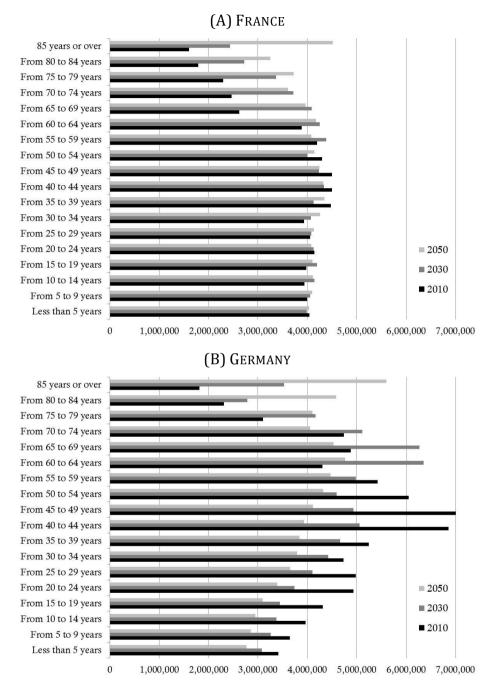


FIGURE 8: POPULATION BY AGE GROUP

Source: Eurostat.

Notes: Population size on January 1, 2010, January 1, 2030, and January 1, 2050 by age groups, respectively.

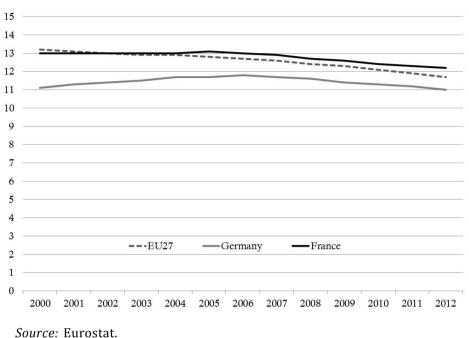


FIGURE 9: YOUTH POPULATION SHARE

Notes: Proportion of population aged 15 to 24 years, in percent.

6. Policy Proposals for France

Although a number of factors can explain the diverging trend in youth unemployment between France and Germany (to some extent), the bottom line of this comparison does not change: The situation in France is very alarming and the future prospects of French youths are increasingly dire. This is a socially explosive situation and politicians must act now to avert a lost generation.

There are several underlying causes for this development. First, the share of high school dropouts is relatively high in France. Every fifth school leaver does not graduate. In total there are now over 900,000 young adults in France without a high school diploma. Second, the strong segmentation of the French labor market is particularly detrimental for young labor market entrants. During the past years, atypical employment and fixed-term contracts have been five times more frequently used for youths than for adults. Finally, a relatively high minimum wage creates an additional barrier in the access to jobs. In light of these findings, Cahuc et al. (2013) derive a number of concrete policy proposals. Textbox 1 summarizes their recommendations.

TEXTBOX 1: PROPOSALS TO FIGHT YOUTH UNEMPLOYMENT IN FRANCE

Proposal 1: Strike a new balance of apprenticeship expenditure in favor of unqualified young people, notably by changing the rules of the ex-quota attribution of the apprenticeship tax revenue, and minimize the proportion of general subjects in vocational skill certification.

Proposal 2: Keeping a constant budget, reorient and expand the 150,000 so-called "jobs for the future (*emplois d'avenir*) by aiming for, on the one hand, 120,000 *emplois d'avenir* in the private sector financed up to 50 percent by the state and accompanied by part-time training and, on the other hand, 75,000 full-time training positions in second-chance programs (EPIDE/EC2). Planning an evaluation of this system is advisable.

Proposal 3: Reinforce the means of the public employment services for low- qualified young people, relying on local missions and external service providers whose interventions would be coordinated by a unique administrative body.

Proposal 4: Open up the possibility of getting the basic minimum income scheme from the age of 18 years (instead of 25 years), as a sort of "youth guarantee", but on the clear understanding that this is subject to job search requirements in a controlled and sanctioned manner, that the support is personalized and, if adequate, that training is provided in which participation is compulsory.

Proposal 5: Focus the subsidy of the "generation contracts" on salaries below 1.6 times the minimum wage, to help hire young people on permanent contracts. The allowance of \notin 4,000 should focus on the employment of low-skilled young people on permanent contracts (which is currently very difficult), alongside with keeping someone older in employment.

Proposal 6.1: Termination of the employment contract for economic reasons must be simplified and secured; the court should not have any say on the appropriateness or the merits of the economic reasons mentioned in support of the layoff.

Proposal 6.2: To avoid excessive contract terminations, employer social contributions should be adjusted according to the volume of their job destructions, making them responsible for the social consequences of their decisions and inciting them to limit the number of short term jobs.

Source: Cahuc et al. (2013).

Cahuc et al. (2013) propose, for example, the implementation of effective activation measures similar to the German principle of "supporting and demanding" (*Fördern und Fordern*). This would include a monitoring program for young people without formal training, as well as a mandatory system of state-sponsored advice and counseling for young job seekers. In addition, a "youth guarantee" scheme should grant basic income support to the age group of 18 to 25-year-olds while at the same time requiring job search efforts or participation in training programs. Moreover, the problem group of school dropouts should profit from a strengthening of existing in-company training programs. Cahuc et al. (2013) also recommend shifting employer training subsidies (e.g., exemptions

from social security contributions or financial rewards for offering apprentices permanent employment) towards small and medium-sized enterprises. They also call for an expansion of the "second chance" program. On the other hand, Cahuc et al. (2013) strongly advise against public employment programs without qualification components.

At least over the medium term, it is furthermore desirable to introduce a dual training system combining school courses with apprenticeships in firms. Such a system is successfully practiced in other countries such as Germany. As the dual apprenticeship system paves the way for labor market integration because it directly reflects the human capital needs of firms, France would be well advised to emulate the German system also in this respect.

7. Policy Responses and General Lessons at the European Level

Europe's youth unemployment crisis calls for broad policy action. Eichhorst et al. (2013a) illustrate its worrying dimension in the European context, summarize recent policy responses, and discuss additional policy options. To illustrate the dimension of the problem, for example, only in Spain, Italy, Greece and Portugal—i.e., in the countries that are especially affected by the financial and economic crisis—there are currently about two million unemployed persons aged 25 years or younger. In the 27 member states of the European Union, more than 5.5 million young people were out of employment at the end of 2012. These figures clearly underline the urgency to introduce measures tackling youth unemployment both at the national and the European level.

At the European level, the European Commission tries to fight youth unemployment within its abilities. This is done by targeted stimulus and by supporting reform measures in the member states, but also within the program "Youth on the Move." This program aims at improving general education, vocational training, higher education, and the mobility of young apprentices and job seekers. Additionally, the support of start-ups and an enhanced labor market entrance of young people in EU countries with youth unemployment rates above average are among the goals of this program (European Commission, 2010).

Furthermore, the EU Commission rightly criticizes high school dropout rates and claims preventive measures. At the same time, it advises to strengthen the recognition of informally acquired qualifications, to dually modernize training systems and offer internships to push the early acquisition of labor market experience in countries where this element is missing in the vocational education system. Against the backdrop of increasing qualification requirements it also calls for stronger efforts to modernize higher education in order to increase the number of graduates across Europe significantly.

This concept is furthermore related to several recommendations and decisions of the EU Commission and the EU Council of Ministers. Those helped to clearly define the planned measures and provided the respective funding. At the same time, within the program "Youth on the Move," a European "Youth Guarantee" should be implemented that enables every EU citizen aged between 15 and 24 years to claim the right for employment, vocational training, or participation in a training program. This proposal was inspired by similar approaches in a number of EU countries (e.g., Austria, the Netherlands, Sweden, and Finland). After the European Parliament had joined this proposal and called for its legal implementation in January 2013, the "Youth Guarantee" was decided by the EU Ministry Council for Employment and Social Policy (EPSCO) in February 2013 (Eichhorst et al., 2013b). In late June 2013, the EU summit decided to go forward with this concept. However, once converted into national law, EU labor market policy will face the huge challenge to provide every young person with (regular or subsidized) work, training, or an internship within four months after graduating or entering unemployment. The "Youth Guarantee" would thus force government authorities in many countries to cooperate more closely with public and private employment services, schools, universities, vocational training providers, employers and unions.

However, there is great danger that the "Youth Guarantee" will lead to disappointment—which will presumably be blamed on the EU—and substantial economic mismanagement. In view of more than 5.5 million unemployed youths in the EU, the member states would have to go to great lengths in terms of designing and coordinating large-scale national programs to fulfill the "Youth Guarantee" even though (or perhaps because) its budget is more than €6 billion. Experience shows that authorities are tempted to set up extensive public employment and training programs aiming for an immediate effect on unemployment statistics without necessarily creating sustainable employment prospects for the target group.

Hence, instead of devoting organizational efforts and scarce financial resources to this "Youth Guarantee," the key features of the "Youth on the Move" strategy should be pursued. Additionally, the current crisis states should be encouraged to reform their labor markets in a way that would reduce *structural* disadvantages for young people and promote the creation of new employment.

Ultimately, only structural reforms in the respective countries can substantially improve young people's employment prospects. European politics should thus maintain the pressure to reform, but not give "guarantees" and raise expectations that cannot be kept.

This issue can be illustrated by the comparison of France and Germany in this paper. The fundamental differences in youth unemployment between the two countries are primarily the result of structural differences in labor market policies and the (vocational) education system. The Great Recession hit France and Germany differently, but its impact on younger and older age groups was not too markedly different. Hence, any programs that do not aim for (and create) sustainable employment prospects will only lead to temporary relief. While this may be a reasonable (short-term) policy objective given the current dimension of the problem across Europe, it should be very clear that such an approach does not tackle the roots of the problem. The roots of the problem are located in the *structural* design of national labor markets and education systems. Hence, Europe's youth unemployment disease has to be cured with structural reforms. While the policy proposals for France (see above and Cahuc et al., 2013) can serve as a benchmark, it should be clear that each country has to develop its own concepts since labor market institutions and policies greatly vary across Europe.

8. Conclusions

France and Germany are two polar cases in the current debate about alarmingly high youth unemployment in Europe. This papers shows that there are several factors that can explain at least part of the significant differences in youth unemployment between the two countries. First, general economic conditions differ as the Great Recession had a very different impact on the labor markets in France and Germany. Whereas the impact in terms of GDP was not too markedly different, the German labor market has shown a remarkable resilience to the crisis. Youth unemployment also remained largely unaffected. On the other hand, both adult and youth unemployment strongly increased in France, albeit to a similar extent in relative terms. Second, demographic trends are very different between the two countries. While Germany will face shrinking cohorts of labor market entrants, their number are expected to remain virtually stable in France. This is due to underlying differences in fertility between the two countries. In recent years, however, youth cohort sizes have declined to a similar extent in both France and Germany.

But there are in addition substantial differences between France and Germany in labor market institutions and labor policies, which appear in general more favorable in Germany with respect to smoothing school-to-work transitions and integrating youths in the labor market. The established dual apprenticeship system is a very strong asset of Germany in this context. Furthermore, the country is not faced with a labor market segmentation that is as strong as in France and a national statutory minimum wage has so far not been introduced. Finally, the approach of the public employment service towards youths appears more activating than what is currently the practice in France. Hence, when thoroughly considering the factors determining youth unemployment, the strikingly different patterns which France and Germany recently follow appear less surprising than at first sight. While it is beyond the scope of this paper to quantify the exact role of each factor, we highlight the importance of labor market institutions and labor policies. This is also the field where policy can act upon-although it should be clear that even the best-designed policy action will not lead to immediate improvements in every case.

It is moreover crucial to thoroughly consider the interactions between labor policies and institutions, e.g., the interaction between vocational education and labor market segmentation. One explanation for the strong segmentation of the French labor market that particularly affects youths can be seen in the country's vocational education system. Temporary employment only acts as a stepping stone towards permanent contracts for qualified workers. Hence, in addition to making permanent contracts more attractive, it also seems important to provide youths with sufficient qualifications. Considering Germany's dual apprenticeship system, it may then actually be viewed as one factor preventing a similar extent of labor market segmentation in Germany.

One important general lesson from our comparison is that efficient labor markets are a crucial factor to effectively fight youth unemployment. More efficiency in this regard then calls for structural labor market reforms. This should be accompanied by a targeted approach towards youths by labor policy, e.g., with activation measures. Establishing a vocational training system combining theoretical parts in special schools with practical work experience in the private sector appears as the most effective way to smooth school-to-work transitions. But as such a dual apprenticeship system relies on a broad support of society, and on its positive image, it cannot be implemented from one day to another. However, the process of gearing efforts towards its implementation can be started today. Finally, it should be noted that more efficient labor markets and more employment may come at the cost of more inequality. In the German case, the solution to this fundamental trade-off has been to balance these aspects over a person's working life, in particular by providing solid fundamentals, i.e., skills and qualifications, through the dual apprenticeship system.¹¹ In general, a key factor to avoiding (too much) inequality is education.

While it is crucial to fight youth unemployment in Europe in the short run, many possible improvements can only be achieved in the long run. This includes, among other things, the introduction of dual apprenticeship systems in countries other than Germany, Austria and Switzerland. However, short-term improvements of the *status quo* improving the current situation of unemployed youths can only be achieved through costly labor policy measures. This includes, for example, a targeted and intensive activation strategy by public employment services. This strategy could be combined with offering (subsidized) training or employment, both of which should importantly be provided by *private* sector companies. Broad international evidence shows that the provision of employment opportunities in the public sector should be avoided. Private sector work experience paves the way for labor market integration because it directly reflects the human capital needs of firms.

Importantly, this approach does not need to be restricted—and should not be restricted—by national borders. Geographic mobility is a very important channel through which youth unemployment can be reduced in the short-run. Countries like Germany could make an important contribution by training and employing young job seekers from other EU countries until their prospects at home have improved.

¹¹ However, it remains to be seen whether this model can be sustained in the future. For example, a system of lifelong learning is underdeveloped in Germany. But it is very likely that providing solid fundamentals at the beginning of a career will soon not be sufficient anymore to prepare individuals for the increasing speed at which labor market needs change.

References

- Abowd, J.M., F. Kramarz, T. Lemieux, D.N. Margolis (2000): "Minimum wages and youth employment in France and the United States," in D.G. Blanchflower and R.B. Freeman (eds.): *Youth Employment and Joblessness in Advanced Countries*, University of Chicago Press.
- Adda, J., C. Dustmann, C. Meghir, J.-M. Robin (2011): "Career Progression and Formal versus On-the-JobTraining," *Working Paper*.
- Alet, E. and L. Bonnal (2011): "Vocational Schooling and Educational Success: Comparing Apprenticeship to Full-Time Vocational High School," *Working Paper*.
- Bargain, O. and K. Doorley (2013): "Putting Structure on the RD Design: Social Transfers and Youth Inactivity in France," *Working Paper*.
- Behaghel, L. and F. Postel-Vinay (2003): "Insécurité de l'emploi: le rôle protecteur de l'ancienneté en France a-t-il baissé?," *Economie et Statistique* 366(1), 3-29.
- Bell, D.N.F. and D.G. Blanchflower (2010): "Youth Unemployment: Déjà Vu?," IZA Discussion Paper No. 4705.
- Bell, D.N.F. and D.G. Blanchflower (2011a): "Youth Unemployment in Europe and the United States," *IZA Discussion Paper* No. 5673.
- Bell, D.N.F. and D.G. Blanchflower (2011b): "Young People and the Great Recession," *IZA Discussion Paper* No. 5674.
- Biavaschi, C., W. Eichhorst, C. Giulietti, M.J. Kendzia, A. Muravyev, J. Pieters, N. Rodríguez-Planas, R. Schmidl and K.F. Zimmermann (2012): "Youth Unemployment and Vocational Training," *IZA Discussion Paper* No. 6890.
- Cahuc, P. and S. Carcillo (2012): "Les conséquences des allégements généraux de cotisations patronales sur les bas salaires," *Revue Française d'Economie* 27(2).
- Cahuc, P., S. Carcillo and K.F. Zimmermann (2013): "The Employment of the Low-Skilled Youth in France," *IZA Policy Paper* No. 64.
- Caliendo, M., S. Künn, R. Schmidl (2011): "Fighting Youth Unemployment: The Effects of Active Labor Market Policies," *IZA Discussion Paper* No. 6222.
- Card, D., J. Kluve and A. Weber (2010): "Active Labour Market Policy Evaluations: A Meta-Analysis," *Economic Journal* 120(548), F452-F477.
- Clark, D. and R. Fahr (2001): "The Promise of Workplace Training for Non-College-Bound Youth: Theory and Evidence from German Apprenticeship," *IZA Discussion Paper* No. 378.
- DARES (2010): "L'activité des missions locales et PAIO en 2008," *DARES Analyses* No. 023, Direction de l'animation de la recherche, des études et des statistiques (DARES).
- Eichhorst, W., N. Rodríguez-Planas, R. Schmidl and K.F. Zimmermann (2012): "A Roadmap to Vocational Education and Training Systems around the World," *IZA Discussion Paper* No. 7110.
- Eichhorst, W., H. Hinte and U. Rinne (2013a): "Youth unemployment in Europe: What to do about it?", *IZA Policy Paper* No. 65.

- Eichhorst, W., T. Boeri, M. Braga, A. De Coen, V. Galasso, M. Gerard, M.J. Kendzia, C. Mayrhuber, J.L. Pedersen, R. Schmidl and N. Steiber (2013b): "Combining the Entry of Young People in the Labour Market with the Retention of Older Workers," *IZA Research Report* No. 53.
- European Commission (2010): 'Youth on the Move' An initiative to unleash the potential of young people to achieve smart, sustainable and inclusive growth in the European Union. (http://europa.eu/youthonthemove/docs/communication/youth-on-the-move EN.pdf).
- Gurgand, M. and D. Margolis (2008): "Does work pay in France? Monetary incentives, hours constraints, and the guaranteed minimum income," *Journal of Public Economics* 92(7), 1669-1697.
- Grunau, P. (2011): *Betriebliche Berufsausbildung und Weiterbildung in Deutschland*. Nuremberg: Institute for Employment Research (IAB).
- ILO (2013): Global Employment Trends for Youth 2013: A Generation at Risk. Geneva: International Labour Office (ILO).
- Junod, B. (2006): "Le CDD: un tremplin vers le CDI dans deux tiers des cas... mais pas pour tous," *DARES Study* No. 117, Paris.
- Kramarz, F. and T. Philippon (2001): "The impact of differential payroll tax subsidies on minimum wage employment," *Journal of Public Economics* 82(1), 115-146.
- Lerman, R.I. (2012): "Can the United States Expand Apprenticeship? Lessons from Experience," *IZA Policy Paper* No. 46.
- Lerman, R.I. (2013a): "Skill Development in Middle Level Occupations: The Role of Apprenticeship Training," *IZA Policy Paper* No. 61.
- Lerman, R.I. (2013b): "Are employability skills learned in U.S. youth education and training programs?", *IZA Journal of Labor Policy* 2, Article 6, 1-20.
- Lutz, W., W. Sanderson and S. Scherbov (2008): "The Coming Acceleration of Global Population Aging," *Nature* 451(7179), 716-719.
- Neumark, D. and W. Wascher (2008): Minimum Wages. MIT Press.
- Parey, M. (2009): "Vocational Schooling versus Apprenticeship Training: Evidence from Vacancy Data," *Working Paper*.
- Rinne, U. and K.F. Zimmermann (2012): "Another Economic Miracle? The German Labor Market and the Great Recession," *IZA Journal of Labor Policy* 1, Article 3, 1-21.
- Rinne, U. and K.F. Zimmermann (2013): "Is Germany the North Star of Labor Market Policy?," *IZA Discussion Paper* No. 7260.
- Schmillen, A. and M. Umkehrer (2013): "The Scars of Youth: Effects of Early-Career Unemployment on Future Unemployment Experiences," *IAB Discussion Paper* No. 6/2013.
- Tatsiramos, K. (2009): "Geographic labour mobility and unemployment insurance in Europe," *Journal of Population Economics* 22(2), 267-283.
- Winkelmann, R. (1997): "How young workers get their training: A survey of Germany versus the United States," *Journal of Population Economics* 10(2), 159-170.