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**Improving the transition between
education/training and the labour market:
What can we learn from various national approaches?**

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Prepared for the European Commission

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13



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Analytical Report for the European Commission
prepared by the
European Expert Network on Economics of Education (EENEE)

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Opinions expressed in this report are those of the authors alone and do not represent the point of view of the European Commission.

1. Introduction

Young graduates and early school leavers entering the labour market are a population at risk. They are exposed to above-average turnover rates between different jobs and face an increased risk of unemployment. The aftermath of the financial crisis – and currently the ongoing Euro debt crisis – have again shown that youth unemployment is particularly sensitive to economic fluctuations (see, e.g., Verick 2011). Between 2008 and 2010, young people (aged 15 to 24) in the European Union (EU 27) experienced an enormous increase in unemployment, from about 5% to 21.1%, compared to an increase of only around 2 percentage points among adults (aged 25 to 74), from 6.0% to 8.3% (Eurostat 2012a).¹ These figures demonstrate the importance of policy measures to help youths master the transition from school to work.

Natural explanations for the youth-adult unemployment gap are that young people initially lack important job search skills and have only little work experience to offer. As a result, young workers often show high turnover rates. Although this vulnerability declines with age, several young people encounter particular difficulties during the school-to-work transition process. Recent research on youth labour markets in the OECD countries shows that a considerable share of potential workers experience long unemployment spells, which are particularly prominent among very low educated individuals (Quintini et al. 2007). Improving early labour market entry is particularly important for young people as many studies have suggested that long unemployment spells at labour force entry have long-run negative effects on employment probabilities and wages in subsequent working life (see, e.g., Gregg (2001) and Gregg and Tominey (2005) for the UK and Andress (1989) for Germany). In addition to the individual and fiscal costs of unemployment (idleness, reliance on benefits, social assistance, etc.), there are also non-negligible social costs in terms of crime and drug abuse (Bell and Blanchflower 2010).

For this reason, large amounts of money are spent each year to fight youth unemployment and to alleviate school-to-work transitions. One widely used measure to achieve these goals is active labour market programmes (ALMPs). Many ALMPs specifically target youth, in order to improve their integration into the labour market.

¹ According to a widely used definition, we mainly refer to youths as being 25 years old or younger. As this age restriction already suggests, we focus here only on the problems of young people who have not undertaken tertiary (higher) education, who in advanced economies constitute the centre of policy concern for youth.

Further options are selectively important, according to the national institutional setting. The first is to improve the knowledge and skills of low-educated and inactive youths, with the goal of increasing their chances of obtaining work-based training, specifically in an apprenticeship. Second, employers may be mobilised to offer more places in such training programmes, whether through peer pressure by employers' associations or through informal collective agreements ('pacts') between employers' associations, trade unions, and government officials.

To assess further the particularities of youth unemployment and the difficulties in the school-to-work transition process, it is helpful to investigate labour market outcomes for young individuals, and relate them to those of adult workers. A straightforward comparison is the ratio of youth unemployment rates to those of prime-age workers (see table 1). As the European economies stood in similar phases of the business cycle, unemployment rates after the burst of the dotcom-bubble (2000/01) can validly be compared to those in the aftermath of the financial crisis (2008/09).

Between 2002 and 2010, youth unemployment in the OECD countries rose by 4 percentage points, from 12.7% to 16.7%, while the unemployment rates of prime-age workers (25-54 of age) increased by only 1.5 percentage points, to 7.5%. Comparing the development of unemployment rates over time thus suggests that youth unemployment is especially severe in the current crisis. Moreover, the youth-adult unemployment ratio has worsened more in some countries than in others. The ratio of the two rates indicates that some countries face especially severe problems in integrating school leavers into the labour market (e.g. Italy (3.67), Sweden (4.13), and the UK (3.13)), while other countries have much lower youth-specific unemployment problems (e.g. Germany (1.47) and Switzerland (1.80)).

Table 1: Unemployment rates of youths and adults in European OECD countries

Countries	age 15-24		age 25-54		Youth-adult unemployment ratio	
	2002	2010	2002	2010	2002	2010
Austria	5.9	8.8	3.6	4.0	1.64	2.20
Belgium	15.7	22.4	6.2	7.3	2.53	3.07
Czech Republic	16.0	18.3	6.5	6.4	2.46	2.86
Denmark	7.1	13.8	3.7	6.5	1.92	2.12
Estonia	-	32.0	-	15.2	-	2.11
Finland	20.6	20.3	7.3	6.9	2.82	2.94
France	20.2	22.5	8.1	8.0	2.49	2.81
Germany	9.8	9.7	8.1	6.6	1.21	1.47
Greece	26.1	32.9	8.7	12.0	3.00	2.74
Hungary	12.6	26.6	5.2	10.4	2.42	2.56
Ireland	7.7	28.7	3.7	12.6	2.08	2.28
Italy	26.3	27.9	7.5	7.6	3.51	3.67
Luxembourg	7.0	14.2	2.4	3.9	2.92	3.64
Netherlands	5.9	8.7	2.6	3.6	2.27	2.42
Norway	11.4	9.3	3.0	3.1	3.80	3.00
Poland	43.9	23.7	17.5	8.3	2.51	2.86
Portugal	13.9	22.3	4.5	10.7	3.09	2.08
Slovakia	35.5	33.6	15.3	12.8	2.32	2.63
Slovenia	-	14.7	-	7.0	-	2.10
Spain	27.3	41.6	10.2	18.6	2.68	2.24
Sweden	11.9	25.2	4.2	6.1	2.83	4.13
Switzerland	3.9	7.2	2.7	4.0	1.44	1.80
United Kingdom	11.1	19.1	4.1	6.1	2.71	3.13
OECD Total	12.7	16.7	6.0	7.5	2.12	2.23

Sources: OECD (2006, p. 252f.; 2011, p.244f.).

Differences in the severity of youth unemployment across countries are associated with national school-to-work institutions (Ryan 2001). Countries with large apprenticeship systems – as approximated empirically by the share of upper secondary education programmes that combine part-time schooling with work-based learning (cf. Wolter and Ryan 2011) – mostly have lower youth unemployment, both absolutely and relative to adults, than do those that rely on full-time schooling at upper secondary level, whether general or vocational (Table 2). The contrast is particularly sharp between Germany, Switzerland and Austria, in the former category, and Italy, Sweden, France, and Finland, in the latter two groups. Moreover, low youth unemployment in the Netherlands and Norway, within the ‘full-time dominance’ categories may be linked in part to the presence of moderately large apprenticeship systems in each case. Countries in which vocational preparation takes place mainly in full-time schools – where students are therefore connected at most marginally to the labour market while in education – have therefore more severe youth unemployment problems.

Aggregate statistics suggest that male youths generally face a somewhat higher unemployment risk than female youths. However, this difference basically seems to be statistical because discouragement effects are higher among young women than young men. That is, young females are more likely than young males to give up search for employment and to join the group of non-participants instead (ILO 2010, p.21). Conversely, in countries with generally low female labour market participation, unemployment rates of young women are even higher than those of young men (OECD 2011a, pp. 240/241; OECD 2011c, p.96). Differential labour force participation rates between women and men – which partly determine differences in unemployment rates – might reflect differences in the cultural acceptance of working women. Therefore, differences in youth unemployment rates between women and men should be considered with caution.

Table 2: Unemployment patterns and vocational training systems: three categories of European OECD countries

Category	Countries	Youth unemployment		Share of upper secondary education types (% enrolments)		
		Absolute rate (%)	Relative to adults (ratio)	General full time	Vocational full-time	Vocational part-time ^a
		2010		2009		
Large apprenticeship	Switzerland	7.2	1.80	34.5	5.4	60.1
	Denmark	13.8	2.12	52.7	0.8	46.5
	Germany	9.7	1.47	46.8	7.9	45.3
	Austria	8.8	2.20	22.7	41.3	35.9
Full-time vocational schooling Dominant	Belgium	22.4	3.07	27.2	71.0	1.8
	Slovenia	14.7	2.10	35.7	63.6	0.7
	Italy	27.9	3.67	41.0	59.1	(0)
	Sweden	25.2	4.13	43.6	56.4	(0)
	Finland	20.3	2.94	31.2	54.1	14.7
	Lux'bourg	14.2	3.64	38.7	47.8	14.5
	Netherlands	8.7	2.42	32.9	45.6	21.5
	Slovakia	33.6	2.63	28.4	43.8	27.8
Full-time general schooling dominant	Hungary	26.6	2.56	75.5	10.2	14.3
	UK	19.1	3.13	69.5	28.4	(2.1) ^b
	Greece	32.9	2.74	69.1	30.9	(0)
	Estonia	32.0	2.11	67.0	32.6	0.4
	Ireland	28.7	2.28	65.6	33.0	1.5
	Portugal	22.3	2.08	61.6	38.4	(0)
	Spain	41.6	2.24	57.1	41.2	1.7
	France	22.5	2.81	55.8	31.8	12.4
	Poland	23.7	2.86	52.8	40.9	6.3
	Norway	9.3	3.00	45.9	37.5	16.6

Sources: Table 1, above; OECD (2011b) Table C.1.3

Notes: Full-time vocational includes pre-vocational, where separately classified.

a. Numbers in parentheses are missing in source; here they are either set to zero or estimated from other information.

b. Level 3 programmes only (Ryan, Wagner, Teuber and Backes-Gellner 2011)

More evidently, youth unemployment is particularly high among youth with low education levels. In the EU-27 countries, on average 14% of young people leave school with a lower secondary degree or less, with a higher share among males (16%) than among females (12%). The share of low-educated youth is especially large in the Mediterranean countries Italy (19%), Portugal (29%), and Spain (28%). Austria (8%), Slovakia, Slovenia and Poland (each 5%) have the smallest shares of early school leavers (CSO 2011, pp.16f.).

Leaving school early is, however, problematic as it is significantly related to unemployment and economic inactivity. Table 3 shows the distribution of early school leavers (ESLs) and non-early school leavers (“Others”) in the EU-27 according to the ILO employment statuses “in employment”, “unemployed,” and “not economically active”. ESLs are defined as persons aged 18 to 24 who have obtained only a lower secondary education degree or less and have not received education within the four weeks prior to the survey.

Table 3 clearly demonstrates that the share of unemployed is significantly higher among early school leavers than among those with a higher school degree. Among males, the probability of being unemployed is 2.6 times higher for early school leavers than for individuals with a higher educational degree. Among early school leavers, the unemployment risk is substantially higher for males than for females (47% vs. 21%), while females are more likely to be economically inactive (58% vs. 31%). These figures suggest that one way to improve the labour market situation of young people in Europe is to provide them with an adequate education level before they enter the labour market.

Table 3: Share of early school leavers and others aged 18 to 24 in the EU 27 by sex and ILO employment status

	2011	
	ESL	Others
Males		
In employment	22	39
Unemployed	47	18
Not economically active	31	44
Females		
In employment	21	44
Unemployed	21	12
Not economically active	58	44
Total		
In employment	21	42
Unemployed	37	15
Not economically active	42	44

Source: CSO (2011, pp.16f.).

A further problem concerning school-to-work transition is inactivity, that is, some youths are neither employed nor in education or training (NEET). Table 4 shows the NEET rates of young people aged 15 to 24 for the EU-27 countries. The NEET rates are especially high in Southern Europe (Spain 18.0%, Italy 19.1% and Greece 14.9%) as well as in Ireland (18.9%) and Bulgaria (21.8%). Given the social costs mentioned above, in several European countries the share of jobless and inactive youths is alarmingly large.

Inactivity – like unemployment – is associated with national institutional attributes: the mass apprenticeship countries (Switzerland, Germany, Austria, and Denmark) have NEET shares below the EU average. Lower rates of youth inactivity in those countries lead to different challenges and to different policy choices, as discussed below.

Table 4: NEET rates of youths aged 15 to 24 in EU-27 countries

Countries	2002	2010
Austria	6.1	7.1
Belgium	16.1	10.9
Bulgaria	28.1	21.8
Cyprus	8.4	11.7
Czech Republic	12.4	8.8
Denmark	5.2	5.9
Estonia	10.3	14.5
Finland	8.6	9
France	10.3	12.5
Germany	8.4	8.3
Greece	15.3	14.9
Hungary	13.9	12.4
Ireland	14	18.9
Italy	16.8	19.1
Latvia	14.3	17.8
Lithuania	11.8	13.5
Luxembourg	5.0	5.1
Malta	16.9	9.6
Netherlands	4.0	4.4
Norway	30.1	4.9
Poland	17.5	10.8
Portugal	10.6	11.5
Romania	21.6	16.4
Slovak Republic	27.1	14.1
Slovenia	9.5	7.1
Spain	12.6	18.0
Sweden	7.5	7.8
Switzerland	4.9	6.7
United Kingdom	11.1	13.7
EU-27	13.0	12.8

Source: Eurostat (2012b)

In many European countries, activation has become an important strategy to improve the school-to-work transition. The European Commission defines *activation* policies as those that “encourage certain unemployed individuals to step up their job search after an initial spell of unemployment, with a later obligation to participate in various programmes. Eventually, the activation principle makes receipt of benefit conditional on participation in programmes, in

the process shifting the balance between the rights and obligations of the unemployed” (European Commission 2006, p. 136).

To such programmes should be added interventions whose immediate focus is to raise the probability of obtaining work-based learning rather than to lead directly to regular employment – i.e., pre-vocational learning, special types of apprenticeship, and efforts to increase the supply of training places. Such practices are, not surprisingly, encountered mostly in countries with large-scale, high quality apprenticeship systems.

This report reviews the evidence on the use and effectiveness of both types of intervention. We draw on the extensive literature of evaluations of European active labour market programmes (ALMPs). We also review evaluations of pre-vocational policies, which remain by contrast fewer and less sophisticated than those of ALMPs – consistent with the more embedded, institutional nature of those interventions, the lower availability of comparable groups of non-participants, and the greater difficulty of defining and measuring outcomes.

We also consider the possibility, given that the policy mix (ALMP, pre-vocational) varies from country to country, that the effects of the different types of intervention differ according to the institutional context. In other words, the ‘apprenticeship’ countries may not only be more prone to using particular types of intervention (e.g., less ALMP in general, more emphasis on training than job search assistance), they may also find that particular types of intervention work better or worse there than in other institutional settings (e.g., lower returns to job search, higher returns to pre-vocational training).

A further related issue is the extent to which interventions that centre on the workplace (i.e., involve work-based learning) are more effective than others. The question is usually raised in relation to outcomes for participants, but it should also be considered for non-participants. This is because work-based programmes carry with them the highest scope for displacement – i.e., the substitution of the labour of participants for that of non-participants. As evaluation methodologies rarely cover displacement issues – whereas political concern often involves it – the evaluation literature provides at best a partial guide to the desirability and the political acceptability of the programmes in question.

The report is structured as follows. The next section outlines potential clusters of policy responses, grouped according to national institutions of vocational training. Section 3 lays out country categories by institutional type, contrasting ‘liberal’ with ‘co-ordinated’ market economies. In section 4, evaluation results of past policy measures are presented, first for

youth active labour market programmes, then for measures supporting apprenticeship systems. Based on the existing evaluation evidence, section 5 concludes with policy recommendations.

2. Policy Responses

Young people face two types of barriers after leaving general education: the first barrier is the transition from general education to vocational schooling or training, and the second barrier the transition from training to employment (Caliendo et al. 2011). Countries may use a variety of instruments to facilitate these transitions and thus to improve the labour market situation of young people. While it is worthwhile for all countries to minimise early school leaving rates and to improve the quality of general education, the best policy response to school-to-work transition problems might depend on the institutional type of the country. In particular, the type of intervention – as well as the effectiveness of the intervention – may depend on the institutions of the vocational education and training system.

Three broad categories of policy interventions to improve school-to-work transition – which differ with respect to functioning and aim – can be distinguished: active labour market programmes targeted at unemployed youth (section 2.1); the extension of high-quality full-time vocational schooling (section 2.2); and measures to improve the functioning of apprenticeship systems (section 2.3).

2.1 Active Labour Market Programmes

Active labour market programmes (ALMPs) are widely used to increase labour supply, stimulate labour demand, and improve the functioning of the labour market. These programmes target unemployed individuals and often address specific groups, including young people and long-term unemployed. ALMPs offer unemployed and disadvantaged workers a variety of programmes: job-search assistance, work experience, on-the-job training, and direct job creation in the public sector. ALMPs have – as the name suggests – a labour-market focus, and should therefore be considered as emergency actions for young people who want to work, but do not find a job. The focus of ALMPs is on rapid results, that is, on increasing short-term employment rates and reducing unemployment rates.

With ALMPs, the government appears as a direct actor in the labour market, one that tries to improve labour supply and stimulate the demand for workers by providing public funds. Countries recently rely increasingly on activation schemes in which participation in

ALMPs is mandatory and entitlement to social benefits is cut if eligible persons refuse to participate.

In about two-thirds of OECD countries with available data, the share of ALMP expenditure spent on youth programmes increased between 1995 and 2002 (see Table 4 in Quintini et al. 2007). In France, Portugal, and the UK, more than one third of all ALMP expenditure was spent on programmes targeted specifically at the youth.

Methods of ALMP intervention have been changing in many countries, replacing traditional public sector provision by public contracting for training services, supplied by a range of service providers, public and private, for-profit and non-profit, with training and employment outcomes as the key contractual variable. The role of government changes from provider to manager and policy developer to system steerer and purchaser. The desirability of such changes remains controversial: on the upside, more scope for cost-reduction and innovation; on the downside, more scope for quality reduction under conditions of contractual incompleteness (Ryan 2010).

2.2 Expansion of School-based VET

In countries where vocational education can be obtained in full-time vocational schools, measures to improve the quality as well as to expand the availability of these schools might be an important way to improve school-to-work transitions. In contrast to ALMPs, this policy response is schooling-focused: it explicitly takes young people off the labour market and aims at improving long-run labour market outcomes. This labour market improvement is meant to arise through better skills and knowledge, which better match the labour requirements of firms.

Both the availability and the quality standards of vocational schools are directly influenced by the government. In contrast to labour market programmes, measures in the vocational education sector become effective rather in the medium and long run. If the demand for teachers increases, new staff have to be hired (or even new cohorts of students still have to finish university), additional equipment has to be bought, and in some cases new buildings have to be constructed. Also procedural constraints in the public sector might postpone the necessary adjustments. Finally, fiscal limitations, especially in economic downturns, might prove as an obstacle to expanding vocation schooling or to improving the quality of vocational education.

2.3 Transition Systems in “Dual” Education

In some European countries – most notably in Germany and Switzerland – youths obtain vocational education in a “dual” system in which theory is taught in educational institutions and practical skills are acquired at the workplace in a company. Apprenticeships are then part of the formal educational system and usually start after finishing compulsory general education. They involve an employment contract and formal schooling (up to two days per week) and last between two and four years. At the end of the programme, apprentices graduate through a final exam in which they have to prove their theoretical and practical skills, which depend on the chosen occupation.

In such VET systems, low-educated youths in particular tend to have considerable problems in finding an employer to offer them a job or an apprenticeship position. Reinberg and Hummel (2005) show for Germany that young individuals with no vocational qualification are about three times more likely to be unemployed than youths with qualification — and eight times as likely compared to youths with tertiary education.

Policy makers might in response employ two measures to improve the situation of these youths. First, they might introduce (or expand) a transition system that aims at improving the eligibility for existing VET programmes by increasing educational attainments. Germany’s transition system is targeted at youth who cannot find an apprenticeship position; it provides courses in different fields, such as language, math, and computing, to raise skills and knowledge, with the aim of preparing participants to secure an apprenticeship position. Activity in the transition system typically lasts between 6 and 12 months.

Second, policy makers can co-ordinate and promote the supply of training places by employers, especially through using networks of ‘private governance’, notably employers’ associations, and by drawing on social partnership (joint regulatory bodies involving also employee representatives and educators), where those institutions exist (see section 3.1).

The transition system aims at short-term results through activating inactive youths, but it also has long-term perspectives, as improving basic knowledge and skill. Like the measures targeted at full-time vocational schooling, the transition system takes young people off the labour market with the goal of improving long-run outcomes.

Note that the courses of the transition system, which aim at improving the skills and knowledge of low-educated youth, might be quite similar to class-based training measures of active labour market programmes. Furthermore, note that the transition system is not relevant

to unemployed young workers who have already completed an apprenticeship, for whom only ALMPs are relevant.

Mounting evidence of the effectiveness of apprenticeship as a school-to-work institution has led many governments, notably those of the UK, Italy, Norway, Finland, Ireland and Sweden, to seek to introduce or develop it, or at least something resembling it – such as work-based learning that lacks sufficient educational content or external influence on the content of workplace training for a prescriptive definition of ‘apprenticeship’ to be appropriate (Ryan, 2011). However, such policies face serious difficulties, as the achievements of the mass apprenticeship countries rest on a foundation of well organised employers’ associations and the active involvement of the social partners (Wolter and Ryan 2011).

3. Country Categories by Institutional Type

The suitability of particular types of intervention and the prospects for their success may depend on the national setting, particularly in terms of socioeconomic institutions. This section suggests a clustering of European economies in terms of the leading institutionally oriented classification schema in contemporary social science. We then examine the extent to which the choice of public intervention differs between the institutional clusters (Ryan 2001; Tiraboschi 2012). Whether or not policy outcomes are also associated with national institutional attributes is considered in section 4.

A preliminary issue concerns the clustering of countries by institutional attributes, specifically with respect to vocational education and training. The difference between the countries with large, high quality apprenticeship systems (essentially, Germany and its smaller neighbours) and other countries is well established. The superior performance of the youth labour market in those countries has led the governments of several other countries to introduce or develop apprenticeship training.

The problem is to differentiate between superficial and substantial institutional development. For example, Britain and Italy have since the 1990s both expanded apprenticeship-type training for young people, and, in the British case at least, have based that effort upon an institutional development that resembles its Germanic counterpart (notably the role of occupational training standards, and their specification by external, supra-firm bodies). Close inspection shows, however, that the resemblance is more superficial than

substantial, notably in terms of effective training standards and the separation of ‘apprenticeship’ from regular employment, which means that ‘apprenticeship’ is closer to an ALMP programme in those countries (Ryan 2011). We therefore exclude both the UK and Italy from the set of mass apprenticeship countries.

3.1. Clustering of Countries by Institutional Attributes

The contemporary analysis of socioeconomic institutions is dominated by the Varieties of Capitalism approach, proposed by Hall and Soskice (2001). Two types of market economy are contrasted: ‘liberal’ and ‘co-ordinated’ (LME and CME, respectively). The former economies are characterised by the reliance of resource allocation on the decisions of self-interested companies and individuals, which are co-ordinated in classic economics textbook fashion by the invisible hands of a largely deregulated market system. In CMEs, although again individuals and companies make decisions assumed to be self-interested, their decisions are influenced by the constraints and opportunities created by collective action, for which little or no counterpart exists in LMEs.

This means that in CMEs in practice some form of ‘private interest governance’ exists, in which functions that in LMEs are either assigned to government officials or left to unguided market forces are influenced in CMEs by meso-level institutions, in the shape of joint committees, as constituted variously by employers’ associations, chambers of commerce, trade unions, works councils, educators, and public officials. Thus, the institutionally elaborate German apprenticeship system involves at sector/occupation level co-operation between employers’ associations and trade unions to determine training standards, and at district level between companies, chambers, trade unions, and educators to determine the eligibility of companies to offer training and of apprentices to become qualified, and at workplace level by companies and works councils to determine the size and content of particular training programmes (Streeck et al. 1987; Bussemeyer and Trampusch 2012).

A key proposition in Varieties of Capitalism analysis is that the CMEs involve a broad set of mutually reinforcing (complementary) institutions. Thus, the willingness of German companies to invest in apprentice training is seen as underpinned by long-term (‘patient’) corporate finance and ownership, collective bargaining external to the company, high coverage of employment by employers’ associations and trade unions, strong employment protection laws, and legally mandated codetermination at plant and company

levels (Hall and Soskice 2001). The content and importance of those complementarities remains, however, a matter of debate (Wolter and Ryan 2011).

A further distinction is often made within the CME category, between economies in which vocational education and training involve largely or entirely full-time schooling, and those in which part-time schooling is combined with work-based learning as part of apprenticeship (Busemeyer and Trampusch 2012). As the distinction is potentially relevant to both the choice and the success of pro-youth interventions, we adopt it here.

The upshot is a three-way classification of European countries:

- i. LME: UK
- ii. CME with school-based VET: Sweden, France
- iii. CME with apprenticeship-based VET: Switzerland, Germany, Austria, Denmark, Netherlands

This classification would have to be augmented in order to embrace a wider set of European countries. Doing so would require one to allow for hybrid cases, with intermediate institutional attributes: the adult-male-protective and youth-unfriendly labour markets of Mediterranean countries (Italy, Greece, Spain, Portugal); the aspiring-to-apprenticeship Nordic economies (Norway, Finland, Sweden); the economies of the east (led by Poland, Hungary, and the Czech Republic), with the institutional devastation inherited from post-war communist governments; and even the uniquely hybrid Irish case.

However, as this report considers the link between interventions and institutions only in broad brush fashion, we do not pursue such taxonomical complications. Indeed, institutional complexities can be avoided, for our purposes at least, insofar as the countries that lack large-scale apprenticeship have all, despite their institutional diversity, found themselves reliant on ALMPs in responding to the problems of youth. Finally, there is the fact that evaluation evidence remains most abundant for ALMPs in LMEs, and rarest for southern and eastern EU countries: only 12 out of 70 evaluation studies for European countries covered by a recent meta-analysis were for a Mediterranean or east European EU member (Kluwe 2010, Table 2).

3.2 Association across Countries between Institutions and Mode of Intervention

The distinction between countries' institutional attributes becomes interesting for this report only if there is an underlying association between those attributes and the manner of public intervention or between those attributes and the success of particular types of intervention – or, of course, both. We consider the former association here; the latter in section 4 below.

The association between a country's mode of intervention and its institutional makeup has both broad and narrow aspects. The former consideration is whether countries differ systematically in their use of ALMPs and pre-vocational interventions; the latter, whether they differ in the balance within the ALMP category (e.g., more use of training than of cuts in benefit entitlements).

Broad associations

A broad association between intervention type and institutions is present almost by definition, as only countries with large, high quality apprenticeship systems find a place for interventions that promote both pre-vocational learning and the supply of apprenticeship places. Other countries might be taken to rely by default on labour-market-oriented programmes that come under the rubric of ALMP. (In practice, things are not quite so simple even at this level of aggregation, in that countries that lack apprenticeship may respond to youth difficulties in the labour market by expanding either apprenticeship or full-time vocational schooling, whether at upper-secondary or tertiary level.)

The plainest evidence of a broad association between institutional category and intervention type is the rapid growth of the transition system (*Übergangssystem*) in Germany during the past decade. The goal of the system is to raise the skills of young people who have not been able to obtain an apprenticeship place after leaving school, so as to make them more credible candidates for recruitment into apprenticeship by an employer. The system comprises several streams: general education in pursuit of a secondary school certificate (BV), vocational education (BGJ, BFS), and work experience (*Praktika*). Participation is typically limited to twelve months, spent mostly or entirely in a full-time school or workshop setting. Multiple successive entries are common (Dietrich et al. 2009).

As nowadays almost as many young people enter the transition system as start an apprenticeship, and as some transition participants proceed through a succession of measures,

some observers have inferred an erosion of, even an upheaval in, apprenticeship as an institution, in Germany, at least (Baethge et al. 2007; Thelen and Busemeyer 2012). These interpretations are however less than convincing, given that, in the Western *Länder* at least, the number of entrants to transition programmes far exceeds the deficit in the supply of apprenticeship places, even allowing for the growth of non-employer based (*ausserbetrieblich*) apprenticeships and the failure of some applicants to gain a training place in their preferred occupation. More consideration should therefore be given to the increasing numbers of low-qualified, unqualified and even unmotivated school-leavers as a supply-side source of the growth of the transition system (OECD 2005; BIBB 2011, chapter 4).

A further distinctive attribute of youth interventions that appear mostly or only in mass apprenticeship countries is the mobilisation of employers to provide more training places, combined with official encouragement to the social partners to do whatever it takes to support that assignment. German governments have twisted arms in employers' associations repeatedly when faced by an excess supply of young people to new apprenticeship contracts, as notably in the mid-1970s and the late 1990s. Those efforts were complemented by the training 'pacts' (*Bündnisse für Arbeit, Ausbildung und Wettbewerbsfähigkeit*) signed by the social partners at federal and Land level from 1999 onwards (Bundesregierung 1999). Such initiatives are not completely unknown in other countries, but the examples are fewer and more wishful, as in the exhortation to British employers by the CBI, the peak employers' association, in 2012 to take on more young people for employment and training.

A third type of intervention that is used mostly or only in mass apprenticeship countries is the creation of shorter apprenticeship programmes, designed to cater to the needs of low-achieving school-leavers. This means in practice programmes that last two years, rather the standard duration three or four years. The approach has been most prominent in Switzerland, starting with the 1978 Act, and developed by its 2002 successor to provide participants with nationally standardised training curricula, leading on completion to a federal vocational certificate, as in mainstream apprenticeship (Gonon and Maurer 2012). A similar development was initiated in Germany in 2004 under federal direction, in an unprecedented violation of social partnership in decision making about youth training (Thelen and Busemeyer 2012). Interestingly, neither initiative led to any widespread replacement of three year programmes by two year ones.

Finally, some mass apprenticeship countries have, when faced by an inadequacy of training places, responded by expanding full-time vocational education. That may occur

within apprenticeship itself, as when Denmark inserted a period of full-time schooling, which may be of indeterminate length, at the start of training, and when Germany developed out-of-company apprenticeship in response to the lack of regular places in the Eastern Länder. It may even substitute for apprenticeship, as in Austria's development of a new full-time upper-secondary vocational route ('VET college'; Graf et al. 2012). Such responses do not, however, offer a practical short-term response to cyclical youth difficulties, given the high costs and the long time required for a major expansion of full-time vocational education.

Narrow associations

The fact that 'mass apprenticeship' countries have developed a range of programmes to help youth cross the first threshold, from school to apprenticeship, is associated with less severe problems for young people at the second threshold, from apprenticeship to regular employment. That does not mean, however, the absence of problems at the second threshold; indeed, such problems have led even the mass apprenticeship countries to adopt ALMP-type interventions to assist young people at and after arriving at the second threshold.

Even so, 'mass apprenticeship' countries may be able, not only to operate ALMPs for youth on a smaller scale than elsewhere, but also to opt for a different mix of labour market programmes. The possibility has yet to be studied systematically, partly because most surveys of the evaluation literature either focus on ALMPs alone (Kluwe 2010), treat pre-vocational programmes as simply another type of ALMP (Caliendo et al. 2011), or note differences in evaluation findings by institutional context but do not relate policy choice to context (Quintini et al. 2007).

The exception is provided by a recent meta-evaluation of ALMPs in advanced economies (Card et al. 2010), which deploys three institutionally clustered categories of country: 'Anglo' (UK and non-European English-speaking countries), 'Nordic' (Denmark, Finland, Norway, Sweden), and 'AGS' (Austria, Germany, Switzerland). This categorisation broadly corresponds to our three-way one (see section 3.1), the principal differences being the (geographically, not institutionally, inspired) placing of Denmark in the second rather than the third group, and the exclusion of France from the second group – again, using a territorial rather than an institutional criterion. The authors (*ibid.*, Table 3) find that countries in the 'AGS' (mass apprenticeship) category tend to opt for ALMP programmes – insofar, that is, as the issue can be judged from the set of programmes that have been formally evaluated, which are implicitly treated as a random sample of all implemented programmes–

that involve the extended further training of unemployed workers, for whom participation tends to be made compulsory. Countries in the ‘Anglo’ group, including the UK, opt more frequently for shorter-term programmes, comprising typically subsidised employment in the private sector, or job search assistance, or a mix of services, and aimed at inactive as well as unemployed individuals, with enrolment typically voluntary and reliant on community outreach programmes. The ‘Nordic’ countries sit either in between these two groups, and typically closer to the ‘Anglo’ ones, on most of these attributes.

The difference in programme choices by country category is consistent with particular institutionally-related features of youth labour markets. The stronger initial training systems of the mass apprenticeship countries are associated, among young people who have left formal schooling, with stronger labour market attachment and less inactivity (see Table 3, above). Interventions to help young people in difficulty after leaving schooling can therefore focus in those countries more on the continuing but less severe skills needs of the unemployed, which centre on occupational skills, than on the deeper skills and motivational problems of the inactive, which centre on basic education and commitment to finding work. To that extent, those countries face an easier task – speaking relatively, not absolutely – and the appropriate policies differ accordingly. Put slightly differently, in terms of the dichotomy between ‘institutions’ and ‘programmes’ (Ryan 2001), countries with strong school-to-work institutions require fewer (ALMP-type) programmes, and they can focus the programmes they use more on unemployed and older youth.

A further issue, of particular policy interest nowadays, is the part played by work-based learning in programmes to help young people. Several of the countries that lack large apprenticeship systems seek to compensate for that by injecting work experience into the curricula of full-time vocational students and by emphasising work placements in ALMP services for jobless workers. These policy developments can be taken to have weakened somewhat the difference between the prominent role of the workplace in vocational education in the mass apprenticeship countries and its marginal or non-existent one in its full-time counterpart in other countries. But the same weakening may be taken to be limited, given the typical brevity of work experience placements for school pupils and the difficulty of inducing employers to assist in the activation of inactive young people.

In any case, detailed evidence on the issue has yet to be provided. The recent surveys of national ALMP choices that pay attention to national institutional context have thus far grouped together both types of learning (e.g., ‘classroom or work experience training’; Card

et al. 2010, Table 3; Kluwe 2010, Table 3). However, there is evidence consistent with the hypothesis that countries tend to use ALMP programmes to compensate for institutional weakness in the school-to-work area: the share of work experience in the private sector among evaluated ALMPs is larger in the ‘Nordic’ and ‘Anglo’ countries than in the ‘AGS’ ones, at 21, 10, and 3 per cent respectively (Card et al. 2010, Table 3).

In sum, the marked differences between European countries in institutional makeup, of both the economy in general and the school-to-work transition system in particular, are associated with different patterns of youth difficulty and different policy requirements. Countries with large, high quality apprenticeship systems devote particular attention to raising the share of young people attaining a vocational qualification at upper secondary level, and face less acute problems of unemployment and – particularly – inactivity among young people who have left schooling for good. That allows them to devote fewer resources to ALMPs and to concentrate those programmes more on more substantial training for unemployed young workers than is the case in other countries, particularly in ‘liberal’ market economies like the UK.

4. Empirical Evidence on the Effectiveness of Interventions Targeted at Youth

This section presents evidence on the effectiveness of past policy measures that were aimed at improving the school-to-work transition of young people. Empirical evidence of programme effectiveness is provided for two distinct types of intervention: active labour market programmes (section 4.1) and measures supporting apprenticeship (section 4.2).

4.1 Evaluations of Youth ALMPs

The overall purpose of active labour market programmes (ALMPs) is to prevent long periods out of regular employment and to integrate unemployed individuals into the labour market. While this report mainly focuses on evaluation studies of ALMPs that are specifically targeted at youth, there exists a huge literature on ALMPs that are non-age-specific or targeted at adults.² Extrapolating the results of ALMPs for prime-age workers (25 to 55 years of age) to youth is problematic because young people differ from older workers as

² For recent meta-analyses of international and European ALMPs, see Card et al. (2010) and Kluwe (2010), respectively.

they have little or no working experience and because unemployed youth may have not entirely finished their educational career.

To provide policy-relevant guidance, the evidence is exclusively based on academic studies that evaluate existing programmes in European countries. Therefore, we explicitly disregard ALMPs that lack evaluations of their effectiveness. We also focus on more recent programme interventions whose results are arguably more likely to be applicable to current labour market problems than those for ALMPs several decades ago.

The existing evaluation studies of youth ALMPs are based on micro-econometric analyses which investigate the average effects of participating in a programme on the participants (direct effect).³ The drawback of micro-based studies is that they neglect general equilibrium effects that depend on direct effects on participants and on indirect effects on non-participants (Grubb and Ryan 1999). A positive finding of a micro-econometric evaluation – which only evaluates the effects on programme participants – is a necessary, but not a sufficient condition to prove the effectiveness of the programme. This is so because intervention programmes might additionally have indirect effects (see Calmfors 1994), such as displacement (subsidised activities and individuals may displace other activities and other individuals), deadweight (the same result would have been achieved without the intervention), creaming (only the most employable of the unemployed benefit from the intervention), and taxation (distortions associated with the financing the measures).

Most evaluations based on micro data simply ignore displacement and related problems, though the better ones note the problem, which Card et al. (2010) term ‘a key unsettled question’ in evaluation. Various kinds of more aggregate data can in principle be used to estimate displacement, and, in a previous generation of evaluation research, the few studies that used such data found displacement to be extensive in youth ALMPs, accounting for two fifths or more of aggregated benefits to participants (Ryan 2001, p. 71). To that extent, the favourable picture created by the current generation of research studies should come with a health warning: total programme benefits are overestimated to an unknown but probably substantial extent.

The most common labour market outcomes are unemployment duration and employment probability; only a few studies consider participants’ wages. The evaluation studies on youth ALMPs do not investigate the effect on the duration of future job spells, thus neglecting potentially important programme effects which might arise through an increase in

³ For an overview of micro-econometric tools for programme evaluation, see Heckman et al. (1999).

productivity or through a better job match. The effects of ALMPs might also differ in the short, medium, and long run. Most importantly, participants who might otherwise have found work typically do not work during the measure (“locking-in effect”), such that the effect on employment in the short run can be negative, but show more positive results in the medium and long run. Unfortunately, most of the datasets which are suitable for programme evaluation contain only a relatively short observation period such that longer-run programme impacts cannot be evaluated and thus potentially positive long-run effects are not captured.

4.1.1 Youth ALMPs by Type of Intervention

A recent meta-analysis of evaluation studies of European ALMPs – including both untargeted and youth-specific programmes – shows that programme effectiveness seems to depend on the type of intervention (Kluve 2010). In contrast, there is little systematic relation between programme effectiveness and several contextual factors, including the macroeconomic status of the country and labour market institutions, once the type of programme is taken into account – though the concept of ‘institutions’ used in that study is narrow, restricted as it is to employment protection law (section 4.2, below).

A subject of particular policy interest nowadays is work-based learning. Is training based in classrooms or workshops external to the workplace less effective than training at the workplace, whether the latter is conducted off-the-job or on-the-job, or simply confined to work experience, as often in internships? The issue has long constituted a key theme in the programme evaluation literature in the US (Grubb 1996). The presumed superiority of situated or contextualised learning has long constituted a pedagogical argument in favour of apprenticeship rather than full-time vocational education (Ryan 2011).

The evaluation evidence for Europe has yet to shed light on this issue. The two leading meta-analyses of ALMP evaluation studies do not distinguish within the ‘training’ category between work-based and other programmes; nor does a detailed study of six types of ALMP and pre-apprenticeship training in Germany (Card et al. 2010; Kluve 2010; Caliendo et al. 2011).

Whatever about that issue, displacement can be expected to be particularly important when an ALMP programme involves work-based learning, and when involuntary unemployment is extensive. At least some of the labour performed for employers by participants, as work experience or on-the-job training, might have been performed in the absence of the programme, and performed by an unemployed non-participant in particular.

The threat is particularly strong for programmes that rely on wage subsidies, or the provision of unpaid participant labour, to employers, without requiring significant work-based training in return.⁴

An acute version of the difficulty surfaced in England recently. An activation programme required unemployed young people accept an unpaid work placement of up to 30 hours a week for six weeks or lose (for two weeks) their entitlement to social benefits. For-profit employers had recently become eligible to participate. Several large supermarket chains, each offering many places, without guaranteeing either training or subsequent employment, were strongly criticised in the media for using ‘slave labour’ – which led most of them to withdraw from the programme. Critics of the programme implicitly – and reasonably – assumed that it involved extensive displacement of paid employment, to the benefit primarily of supermarket companies’ profits. Moral objections to forced labour intensified the criticisms. The possibility that participants themselves might benefit – the standard evaluation criterion – became a secondary issue. By way of contrast, Street Elite, a public service programme that trains unemployed teenagers to act as sports coaches for deprived school-children, avoids by its design any accusations of displacement and profiteering.⁵

An appreciation of the potential of situated, work-based learning as a response to youth problems should therefore be accompanied by recognition of the potential for abuse. The issue is not specific to ALMPs: it featured in criticisms of traditional apprenticeship as cheap labour (Wolter and Ryan 2011). The long-term extension of the regulation of apprenticeship as an institution has, in the Germanic countries at least, reduced that threat to acceptable levels. By contrast, in the more hectic and politically driven world of ALMP programmes, the drawback is easily overlooked by policy makers.

Given the concerns about work-based learning, the effectiveness of youth ALMPs will now be considered for the following five types of intervention: employment services; classroom-based training; workplace-based training in the public sector; workplace-based training in the private sector; and self-employment support (see Table A1 in the Appendix).

⁴ The issue applies to public as well as private sector employers, as severe budgetary constraints can mean as strong an incentive to use participant labour to cut costs for the former as profit-seeking can for the latter.

⁵ www.guardian.co.uk/society/2012/feb/21/back-work-scheme-disarray-tesco;
www.guardian.co.uk/society/2012/mar/08/street-elite-neets-sport?INTCMP=SRCH.

(a) Public Employment Services

Public employment services (PES) typically have three aims: (1) job search assistance and career guidance; (2) management of unemployment benefits; and (3) bringing job seekers into ALMPs. Because PES both provide job search assistance and monitor the compliance with the job search requirements in order to receive unemployment benefits, these two effects cannot be disentangled in evaluation studies.

The few evaluation results that exist for youth-specific PES suggest rather positive employment effects. Caliendo et al. (2011) find for Germany that job search monitoring and the assessment of career opportunities of young individuals yield persistently positive employment effects. Blundell et al. (2004) show that compulsory job search assistance – the first part of UK’s main active labour market programme for youth, the New Deal for Young People (see section 4.1.2 for more details) – has positive effects on the (re-)employment of young individuals. The authors find only very weak equilibrium wage and substitution effects. PES programmes in Portugal, however, have been found to be ineffective in reducing unemployment duration (Centeno et al. 2009). These programmes consisted of intensive job-search assistance and small basic skills training and were mandatory for all young people below age 25 before they have been registered for 6 months. The Portuguese programmes might have been ineffective because the Portuguese labour market is characterised by extremely high employment protection and generous unemployment insurance.

Further evidence on the effectiveness of PES comes from the UK. Each unemployed person had to do a compulsory interview after having been registered unemployed for 6 months. Dolton and O’Neill (1996; 2002) find that these compulsory interviews reduced the unemployment rates of beneficiaries significantly in both the short and long run.

(b) Classroom-based Training

Classroom-based training measures vary in duration, may consist of part- or full-time courses, and may provide either basic or advanced skills. The programmes may contain both vocational and non-vocational content. The overall goal of classroom-based training is to increase the human capital of unemployed youths with low education levels to better match labour demand.

The overall evidence of existing evaluation studies indicates that classroom-based training measures have been quite successful in improving employment outcomes of unemployed youth. The Youth Unemployment programme (YUP) in Denmark, implemented

in 1996, was directed towards unemployed, low-educated youth, and has been considered best practice by the European Commission (OECD 1998). Young persons under the age of 25 without formal education beyond secondary school who had been unemployed for 6 months during the previous 9 months were offered 18 months of specially designed vocational education. Individuals who refused to participate in the special education programmes or to enter the ordinary education system lost their unemployment benefits. Transition rates from unemployment to schooling were significantly raised by the YUP, while transition rates from unemployment to employment increased somewhat less (Jensen et al. 2003).

Another effective instance of classroom-based training involves a non-basic vocational training measure in Finland, which may involve also some practical training. Whereas this measure, with an average duration of five months, yielded positive effects, a preparatory training of shorter duration that provided basic skills seemed to be ineffective (Hämäläinen and Ollikainen 2004). In Germany, both courses of short duration (to improve auxiliary skills that are important in the application process, e.g. computer or language courses) and courses of longer duration (focused on youths with vocational qualification who seem to require additional qualification) helped to increase participants' employment probability in the long run. Training courses offered by state training centres in France, which lasted between 6 and 9 months, showed positive employment effects in the observation period 1986-1988, but negative effects in 1995-1998, although these two periods faced similar macroeconomic conditions (Brodaty et al. 2002). Another classroom-based training measure in Sweden seems to have been ineffective in improving short- or long-term employment outcomes (Larsson 2003).

The World Bank, in co-operation with participating countries, conducted several ALMPs in East European countries to improve labour market outcomes during the transition phase in the mid-1990s. Among these programmes was a training measure that provided unemployed individuals with additional skills and knowledge. This consisted of institutional training, but also included some on-the-job training. This programme yielded significantly positive employment effects in Hungary and Poland, but insignificant effects in the Czech Republic (Fretwell et al. 1999). A retraining programme (not specifically targeted at youth) in another transition country, Slovakia, increased transition rates among youth to regular jobs in the long run (Luboya and van Ours 1999).

(c) Job Creation and Workplace-based Training in the Public Sector

Direct job creation is usually targeted at the long-term unemployed or youths that face problems of integration into the regular labour market. The aim of this type of programme is not only to give unemployed a job but also to increase their employability. Typically, direct jobs are created in the public or non-profit sectors of the economy and are mainly publicly financed. The evaluation results of this type of youth ALMP are rather disappointing: almost all workplace-based training measures in the public sector targeted at youth are ineffective in raising participants' subsequent employment probability.

In France, a workfare programme consisting of temporary public employment and educational/vocational courses did not increase the transition probability to a regular job (Bonnal et al. 1997). Another French programme that heavily subsidised the hiring of low-educated jobless young adults and long-term unemployed in community service jobs increased employment probabilities at the end of the 1980s, but showed negative effects in the observation period 1995-1998 (Brodaty et al. 2002). In Germany, a public sector job creation programme that provided some type of work experience for youths with very little previous labour market experience was found to be detrimental for employment prospects in the short to medium run and ineffective in the long run (Caliendo et al. 2011). Similarly, temporary public employment programmes in Ireland (O'Connell and McGinnity 1997) and Norway (Hardoy 2001) did not increase the probability of entering regular employment. A subsidised work programme in Sweden in which young unemployed with a high school diploma were placed in both the private and the public sector proved ineffective in improving employment probability or raising wages in the short or long run (Larsson 2003). The World Bank programme in the East European transition countries also included a public service employment programme, which turned out to be ineffective in the short term in all three large transition countries (Fretwell et al. 1999). A public sector programme in Slovakia, however, seemed to increase transition rates to regular jobs in the long run (Lubyova 1999). In Slovenia, a programme that created special jobs for the unemployed to refresh their skills proved effective in the short run, but had negative effects in the long run which are possibly due to stigma effects (Vodopivec 1999).

(d) Workplace-based Training in the Private Sector

Wage subsidies to private employers are the most common type of ALMP in Europe. Subsidies might depend both on the target group as well as on the conditions of the welfare

system and are aimed to overcome demand side restrictions. Employment subsidies are often associated with the creation of temporary jobs, in case of young people also including some kind of internship position. Evaluations of wage subsidy programmes targeted at young unemployed individuals tend to find positive effects on the future probability of entering regular, unsubsidised employment. It must be kept in mind, however, that almost all evaluation studies disregard indirect effects, which might be important in the case of employment subsidy measures (see above).

In Belgium, two distinct programmes were effective in improving the transition from unemployment to regular, unsubsidised jobs: income support for low-paid part-time workers (Cockx et al. 2010) and temporary work contracts for young unemployed (Göbel and Verhofstadt 2008). In Finland, employment subsidies that varied across sectors were also effective in increasing employment probabilities (Hämäläinen and Ollikainen 2004). In France, an alternating work/training programme in private firms, which included apprenticeship, qualification and adaptation contracts, were effective in improving transition to regular employment, especially among less educated youth (Bonnal et al. 1997). Another French ALMP, consisting of fixed-term contracts between 6 and 24 months (similar to an apprenticeship contract) and targeted at unskilled or long-term unemployed young adults proved to be effective at the end of the 1980s, but ineffective 10 years later (Brodaty et al. 2002).

Two different wage subsidy programmes for youth in Germany strongly improved the long-term employment probability of programme participants (Caliendo et al. 2011). One wage subsidy programme was limited to one year and provided subsidies equal to 50% of the wage; the other programme could be taken either up to one or up to two years and employers had to guarantee a period of post-subsidy employment. Another German wage subsidy programme that was not specifically targeted toward youth did not improve long-term employment outcomes of persons below age 40 (Kvasnicka 2008). Three distinct labour market programmes in Ireland were effective in increasing of finding a regular job: a work experience programme that provided unemployed young people with 26 weeks of work experience on an employer's premises (Breen 1988); an employment subsidy programme and a job-specific training programme (O'Connell and McGinnity 1997). An Italian training programme (post diploma or on-the-job) proved to be ineffective (Caroleo and Pastore 2001).

In the Netherlands, a programme paid wage subsidies to employers if they hired long-term unemployed. This measure had positive short- and long-run effects on participants'

employment probabilities, but also displaced people who have been unemployed for a shorter period. Subsidies to labour agencies to facilitate job placements were ineffective (de Koning 1993). A Swedish subsidised work programme aimed at providing working experience for young unemployed with a high school diploma and lasted generally six months. Participants were placed in both the private and the public sector. This programme had no significant employment effects (Larsson 2003). In contrast, wage subsidies paid to employers in the UK, one part of the New Deal for Young People, improved short-term employment outcomes (Blundell et al. 2004). Dorsett (2006) finds that a period of subsidised employment is a more effective means of exiting unemployment and securing unsubsidised employment than the other options available under NDYP. The older UK Youth Training Scheme in the late 1980s, which consisted of on-the-job training courses for school leavers aged 16 and 17, was found to be ineffective by Green et al. (1996), but to have positive employment effects in another study (Whitfield and Bourlakis 1991). Finally, the wage subsidy programmes by the World Bank in the larger East European countries improved short-term employment prospects for participants in all three countries (the Czech Republic, Hungary, and Poland; see Fretwell et al. 1999).

(e) Self-Employment Support

Another type of ALMP provides start-up loans to individuals to help them to become self-employed. However, evidence whether self-employment support works for young people in Europe is very scarce because European countries seemingly do not use self-employment support programmes specifically targeted at young people. An exception is the above-mentioned World Bank programme in transition countries which partly consisted of small loans to support self-employment. The evaluation results of this measure are rather positive: while the loans seemed to be ineffective in the Czech Republic, the self-employment loans had positive short- and long-term employment effects in Hungary and Poland (Fretwell et al. 1999).

(f) Combination of ALMPs

While most ALMPs can be grouped (more or less clearly) into one of these five categories, some ALMPs are clearly combinations of different types of ALMPs. Evaluation studies on these programme combinations found mixed results on their effectiveness.

In Germany, a combination of individual coaching, classroom training, and temporary work targeted toward youths without lower secondary school degree, without vocational

training degree and/or without labour market experience improved participants' employment prospects (Ehlert et al. 2011). In Norway, youths participated either in vocational youth programmes, consisting of a combination of work experience, on-the-job and off-the-job training, or in training programmes offering different classroom courses. Overall, this ALMP seems to have reduced employment probabilities of participants in the short and long term (Hardoy 2001). De Giorgi (2005) investigates the long-run effects of the combination of job-search assistance, training, wage subsidies, and job experience (New Deal for Young People) and finds evidence of positive employment effects for programme participants, but does not find evidence of general equilibrium and substitution effects.

In Sweden, the main purpose of an ALMP was to prevent long-term unemployment by guaranteeing an assignment to some labour market programme (work-place practice, training, or combination of both training and practice) within 100 days of unemployment. The evidence suggests that this measure did not significantly improve the future labour market situation of participants, which suggests that early intervention during unemployment was not important (Carling and Larsson 2005). Another Swedish programme provides education or practice to facilitate the transition to work or to stimulate participation in regular education (for 18- and 19-years-old). It also included the obligation to offer the target group a full-time activity after 100 days of unemployment (20- to 24-years-old). The programme had positive effects mainly early in the unemployment spell, but had no long-run effects (Forsslund and Nordström Skans 2006).

4.1.2 ALMPs by Institutional Type of Country

The evaluation results of the youth ALMPs presented in the previous section can also be grouped by institutional type of country (see categories defined in section 3.1). Grouping the ALMPs by institutional type of country has two advantages. First, existing evaluation studies give some hints whether certain countries use certain types of interventions more frequently than other countries (section 3.2, above). Second, grouping ALMPs by country type provides some insights as to whether effectiveness of intervention type is associated with the institutional type of the country (this section).⁶

⁶ The type of programme intervention and the studies are not repeated in this section as the evaluation studies referred to in this section are the same as those already reported in section 4.1.1. For an overview of the evaluation studies by institutional type of country, see Table A2 in the Appendix.

Policy interventions might be expected a priori to have different effects in different institutional settings. For instance, training programmes might be expected to be more effective in countries that lack strong vocational education, which leaves young people with more to learn, than in those in which youth is better prepared to enter the labour market. Alternatively, low-achieving youth might find it harder to learn, and thus benefit less from training as opposed to other services. The direction of any net effect is not clear a priori.

(a) Liberal Market Economies

The evaluation studies suggest that countries where labour market outcomes are predominantly determined by the market forces of supply and demand (especially UK, and to some extent Ireland) have predominantly used incentives in the private sector to foster youth employment. These measures aim at providing work experience through wage subsidies paid to employers. Overall, these youth ALMPs seem to have been quite successful in increasing participants' employment chances. One especially successful programme is the United Kingdom's main ALMP for youth – the New Deal for Young People (NDYP). The programme, introduced in 1998, was mandatory for young people who have been claiming unemployment benefit continuously for six months – in the sense that their benefit entitlement was reduced if they refuse to participate. NDYP consisted of several components, such as job search assistance in the first stage with training, wage subsidies, or public work in the second stage of the programme.

(b) Co-ordinated Market Economies with Mostly School-Based VET

Most evaluation evidence is available for the group of countries where vocational education takes place mostly in the form of full-time schooling, with Sweden and France as the prototypical countries. Evaluation findings exist for all types of ALMPs except for public employment services.

Interestingly, there is no evidence on wage subsidies to private employers in Sweden, the country with a large full-time vocational schooling sector. This is in stark contrast to the liberal market economies where wage subsidies are used heavily. Similarly, private sector subsidies for unemployed youth seem to be little used in Norway. In general, the effectiveness of Swedish ALMPs is rather limited. To combat youth unemployment, France basically uses three types of ALMPs: public sector employment, classroom-based training, and workplace-based training in the private sector. Programme effectiveness is rather mixed in France. In Sweden, employment subsidies and training measures seem to be quite

successful not only in promoting employment but also in increasing the earnings of participants.

The three large East European countries – the Czech Republic, Hungary, and Poland – are subsumed in the category of countries with a large share of full-time schooling, as these countries started to develop apprenticeship systems only during the 1990s, while evaluation evidence stems from the mid-1990s. The ALMPs by the World Bank and participating countries, which contained all types of active labour market interventions, in general seem to have improved the employment outcomes of participants. However, the programmes were somewhat less effective in the Czech Republic.

(c) Co-ordinated Market Economies with Mass Apprenticeship System

Several countries have extensive apprenticeship systems – most notably Germany and Switzerland, but also Austria, Denmark, and the Netherlands – where many youths do their vocational education in a dual system: the theoretical part in educational institutions and the practical part at the workplace in enterprises. The existing evaluation studies on youth ALMPs in these countries seem to be quite effective in improving employment prospects.

Although youth unemployment in Germany is rather low compared to other European countries, a considerable fraction of youths faces difficulty in finding employment. Towards the end of the 1990s, ALMPs specifically targeting unemployed youths were put into place, with an increasing number of youths participating in ALMPs in Germany thereafter. Evaluation results on both short-term and long-term impacts for a variety of different ALMPs overall indicate positive long-term employment effects for nearly all labour market measures. The evaluation of a German pilot programme that targets low-skilled young unemployed and which combines three ALMPs components reveals that the programme had a positive impact on the post-programme employment probability of participants.

For two other countries with extensive apprenticeship systems, Switzerland and Austria, there is no evaluation evidence available on ALMPs targeted at young people. In the Netherlands, a wage subsidy programme for long-term unemployed and a vocational training programme for unemployed and low educated youths in Denmark were also quite effective in raising participants' employment prospects.

(d) Other Countries

As noted above, fewer evaluations of youth ALMPs exist for new East European member states and for the Mediterranean countries. In the Mediterranean countries, there is only

evidence for a training programme in Italy and for a public employment service programme in Portugal, both of which show insignificant effects. Among the smaller East European countries, little evidence is available: public sector employment programmes and a training programme, with positive effects on participants in Slovakia and insignificant effects in Slovenia during the transition years in the 1990s.

(e) Overview

The evidence is again limited. The meta-analysis by Card et al (2010, Table 5) finds that, taken as a whole, the short-term (12 month) effects of ALMP programmes are indeed higher in the ‘Anglo’ than in the ‘Nordic’ countries, and in turn higher in the ‘Nordic’ than in the ‘AGS’ countries. Moreover, the reverse ordering of countries applies to long-term (36+ month) effects. The pattern could mean that national institutions affect the time pattern of programme benefits, with liberal market economies doing better than co-ordinated ones in the short term but worse in the long term – a pattern consistent with the wider characterisation of greater short-termism in LME financial markets.

The pattern could however be caused by differences in programme mix rather than effectiveness, particularly as CMEs use more long-term, training oriented measures than do LMEs (see section 3.2). Card and colleagues favour the latter interpretation, as the country effects in their regression analysis of evaluation results become insignificant when controls are introduced for type of ALMP programme (ibid, p. 463). However, as their sample size is not large, and negative results cannot establish inferences conclusively, the issue deserves further investigation. A promising approach would be to analyse differences in programme success across country types at a more disaggregated level – i.e., for such intervention categories as job search assistance, work-based learning, etc. – not just for the overall programme mixes that are favoured within each country group.

4.2 Policy Measures Supporting Apprenticeship

Evaluation evidence is scarcer for measures that seek to expand vocational education in general and apprenticeship in particular. The issue is not that evaluation methods are in principle any less relevant than for ALMP programmes: for example, concerning measures that focus on individual youths, the central question in both cases is whether the participant is made better off by participating than he or she would have been had he or she not participated (Caliendo et al. 2011). The desired outcomes differ, however: obtaining a qualification that is

needed for eligibility for apprenticeship, or gaining an apprenticeship place, rather than gaining employment or higher pay when employed – though an increase in the ultimate probability of employment and higher pay undoubtedly remain longer-term objectives in both contexts.

The low availability of evaluation evidence has something to do with particular features of these measures. Those that focus on individuals tend to be entitlement programmes, which means large scale participation and a corresponding dearth of a valid comparison group, from whose experiences one might estimate the counterfactual. A further factor may be scientific progress: a decade ago, the serious evaluation of ALMPs was a novelty in German-speaking countries. It may well take another decade for the rapid growth of sophisticated evaluation activity to extend in Germany from ALMPs to the transition system. However, a start has been made by Caliendo et al (2011), which treats transition programmes alongside ALMPs, as if they were just a variant thereof.

This section considers the limited evaluation evidence that is currently available for policies that seek to strengthen apprenticeship as a school-to-work institution, firstly by making more applicants acceptable to employers offering training and secondly by encouraging employers offering training to offer more of it. We then consider another potential institutional influence on the problems of youth: employment protection for adults, which potentially weakens the scope for ALMPs to increase youth employment.

4.2.1 Expansion of Apprenticeship: the Supply Side

The relevant measures are dominated by Germany's transition system (see section 3.2). We interpret the system's poor reputation among German commentators in terms of the strong performance of its apprenticeship system to which the country had by the early 1980s become accustomed. From a foreign observer's standpoint, however, Germany's insistence on raising as many young people as possible to the standard required to appeal to employers as potential apprentices, even at the price of an extended waiting period, is more attractive than the more typical approach in at least some LMEs, which is to reduce training standards to make them attainable without serious effort even by low-qualified young people, through access courses and the like.

Whatever about that, the key point is that these critical assessments of the transition system by German commentators suffer from a lack of appropriate evaluation evidence – a deficiency noted by a leading critical survey (Baethge et al. 2007, p. 50). That problem is however changing: an econometric evaluation, using a comparison group of non-participants,

with statistical controls for individual attributes, finds that participation in a transition programme increases subsequent involvement in apprenticeship, by around 12 percentage points, at between 12 and 48 months after entry. Not surprisingly, it reduces the probability of regular employment during that period, but at least no adverse employment effect remains at five years after entry, and a positive effect might be expected were the evaluation period longer still (Caliendo et al. 2011, p. 17f.).

One other study attempts to implement the counterfactual by using an explicit comparison group: a study of two transition programmes for educational low achievers in Lower Saxony, which compares subsequent access to apprenticeship among secondary school pupils who do and do not enter the programme. More than nine-tenths of participants gained a school-leaving qualification (*Hauptschulabschluss*), as compared to only two-fifths of non-participants; around half of all participants subsequently obtained an apprenticeship place, as compared to one-third of non-participants. The programmes appear therefore to have worked, particularly in terms of educational qualifications – although in the absence of controls for differences in personal attributes (e.g., motivation) between the two groups, the findings remain tentative (Solga et al. 2011, p. 137).

Other studies rely on cruder measures, notably gross outcomes, without any comparison to a control group. Thus Baethge et al. (2007) note that less than one half of participants find an apprenticeship place soon after leaving their programmes, and that substantial minorities of participants either drop out before completion or subsequently enter another transition programme. Moreover, only around ten per cent of all participants in the educationally-oriented measures manage either to obtain a school-leaving qualification or to improve on their existing one (BIBB 2010).

Such a pattern is indeed discouraging, but it does not rule out the possibility that participants' outcomes would have been even worse had they not participated, i.e., that the programme succeeded. Moreover, a more encouraging picture emerges when the gross outcome in question changes from finding a training place directly after participation to finding one within three years. On that basis, the rate of finding an apprenticeship rises from less than half at two months to around 70 per cent by 30 months (BIBB 2010, Figure A3.3-1). Again, it is possible that such a pattern would have occurred in the absence of participation but, given the disadvantaged situation of many participants, that appears unlikely.

Further evidence that the transition system stands closer to a 'gangway to learning' than to a 'parking lot' comes from the statements of participants themselves: more than four-fifths

viewed their experiences favourably and around three-quarters saw their programme as having contributed to their personal development, despite generally having entered it by default, after failing to find an apprenticeship place (BIBB 2010). The limitations of satisfaction surveys as evidence of programme success are well known, but had evidence of widespread dissatisfaction been present, it would definitely have undermined any proposition of programme success.

4.2.2. Expansion of Apprenticeship: Short Programmes, Price Adjustment, and Demand Side Measures

The other measures through which governments in mass apprenticeship countries have sought to expand apprenticeship activity start with the introduction of two year programmes, designed in particular to suit the capabilities of youths with low qualifications and other disadvantages. The country of particular interest is Switzerland, which has operated such programmes since the late 1970s and which since the 2002 Act has moved them closer to regular apprenticeships by standardising training requirements within occupational categories and tying each programme to a Federal vocational qualification.

Comparing participants in apprenticeship linked to two low paid service occupations (hospitality and retailing) under the pre- and post-2002 systems, Kammerman (2010) finds no difference for a central objective, the probability of subsequent employment, but marked differences for two secondary objectives, the frequency of mobility between employers and participation in continuing training within the training occupation. Although the study does not control for differences between the two groups of participants, the low occupational level involved in both cases suggests that those uncontrolled differences may be small, and the difference in outcomes therefore a guide to programme effects – which do indeed correspond to expectation, in that more credible occupational certification should promote inter-employer mobility, particularly in Swiss labour markets, with their high labour mobility.

Further evidence in favour of the Swiss reform is provided by Fuhrer and Schweri (2010), who draw on a survey of apprentice training costs to establish that the enhancement of the two year training schedules has not on average imposed positive net costs of training on the employers who offer such apprenticeships, despite the disadvantaged attributes of many apprentices. Economic incentives are thus seen to support an important institutional innovation.

A second line of public intervention that applies primarily to mass apprenticeship countries concerns the mobilisation of sector-level employers' associations and district-level

chambers to encourage members to offer more training places. In Germany, such efforts have been undertaken in response to every serious deficiency in the supply of apprentice places since the Energy Crisis of the mid-1970s. To these efforts may be added the policy since the late 1990s of bringing together the social partners and government to formulate employment and training pacts (*Bündnisse*) that aim to increase the supply of training places through various adjustments, including agreement by trade unions to accept lower apprentice pay in return for an offer by employers of more places (Bundesregierung 1999).

The evaluation problem is particularly severe when it comes to such aggregate-level interventions, which typically apply to the whole country or to an entire region, and thus debar any easy comparison to some ‘policy off’ alternative, on the basis of which to infer the counterfactual. An alternative source of evidence is the time pattern: the extent to which the underlying trend in the offer of training places, which has been downward since the early 1990s, has been broken when these interventions were undertaken. At most limited success might be inferred for such efforts in Germany, given the continuing shortage of training places and the sheer size of the transition system – but again, things might well be much worse without those efforts, and, if so, that would mean some success.

4.2.3. Other Institutional Influences on ALMP Outcomes

The further potential institutional influence on ALMP effectiveness is employment protection: its strength in both a country’s labour law and its employment practice. The high job security enjoyed by many mature males in the EU’s Mediterranean member countries in particular is often seen as shutting the door on youth employment in times of persistent labour market weakness (Tiraboschi 2012). The deregulation of youth employment (e.g., encouragement of temporary employment and training contracts for young people) might in principle offset that, but only partially, as long as adults remain entrenched in employment.

The statistical evidence on the issue is limited but not favourable to such an interpretation. A meta-analysis of evaluation results for European countries finds little or no association between the strictness of the relevant country’s employment protection law and the effectiveness of ALMPs, even for programmes confined to youth – though a small sample size and lack of controls for training-related institutions may contribute to this negative conclusion (Kluve 2010, Table 7). Similarly, a review of 289 studies of youth-oriented ALMPs in 84 countries finds, after setting aside the majority that do not evaluate programme outcomes, that more rigid employment protection is associated with lower programme benefits, which is consistent with institutional constraints on the effectiveness of pro-youth

interventions (Betcherman et al. 2007). Again, the absence of a relationship in a small sample with serious specification problems means that the inference has to be treated as suggestive rather than conclusive.

5. Conclusions

Policies that involve learning and employment and are intended to help young people with difficulties in school-to-work transition differ – and should differ – according to the national institutional context. The primary distinction is between countries with large, high-quality apprenticeship training systems, which possess all of the institutional foundations needed to support supra-market co-operation, and countries with largely school-based vocational education, either linked to a liberal or a co-ordinated form of market economy.

All European countries face serious youth joblessness and use ALMPs in response to it. Because their young people acquire a better skills base and a stronger attachment to the labour market, mass apprenticeship countries have lower rates of youth unemployment and youth inactivity (see Tables 1, 4, above). Those countries' policy choices in the ALMP area therefore incline more towards training, longer-duration participation and a longer-term time profile of benefits. They also devote particular attention to improving youth access to apprenticeship in the first place, an option that lacks a counterpart in other national institutional contexts. Although these policies have been widely criticised in Germany as second best, they do embody the national commitment to high-quality work-based learning. And the evidence, albeit limited, that is available on the success of these policies points to substantial learning-related benefits. It is also possible that ALMP programmes are more effective in those countries, but neither theory nor evidence to date points clearly toward that.

In terms of national differences in the choice among and the effectiveness of ALMP programmes themselves, existing evaluation studies of youth ALMPs suggest certain patterns, with intervention modes and outcomes differing by national institutional type (see section 4.1 and Table A2). Liberal market economies tend to rely heavily on private sector incentives, through wage subsidies and on-the-job training, which aim at providing workplace-based training. These measures were found to have been quite effective in raising participants' future employment prospects. Co-ordinated market economies with mostly school-based VET, notably Sweden and France, have used a broader variety of ALMPs. Overall, evaluation results are more mixed for them than for LMEs: programmes had

positive, insignificant and in some cases even negative effects on participants' employment probabilities. In the mass apprenticeship countries, there is much less evidence on ALMPs targeted at youth, but a range of interventions has been used there too, with broadly positive effects. Finally, evaluation studies for Mediterranean and smaller East European countries are too scarce to permit statements about programme effectiveness in these countries.

As already noted above, it has to be kept in mind that the positive effects often found for youth ALMPs should be considered with caution since these evaluation studies focus on the direct effects for programme participants only – and typically ignore all indirect programme effects, such as displacement (gains to participants that come at the expense of non-participants) and deadweight (gains to participants that would have accrued anyway). Furthermore, the evaluation studies only consider the effects of the programmes but ignore their (potentially high) costs, to assess which would require much more data than are typically available. Whether these programmes are worth implementing from a cost-benefit perspective cannot be judged here. Finally, even programmes for which efficiency benefits do not exist may deserve support in terms of equity, as helping disadvantaged young people to become active and receive income while participating, whatever happens to them afterwards – an issue that has been generally neglected in the evaluation literature on both sides of the north Atlantic.

References

- Andress, H. (1989): Recurrent Unemployment - The West German Experience: An Exploratory Analysis Using Count Data Models with Panel Data, *European Sociological Review*, 5 (3), 275-297.
- Baethge, M., H. Solga and M. Wieck (2007): *Berufsbildung in Umbruch. Signale eines überfälligen Aufbruchs*. Berlin: Friedrich-Ebert-Stiftung.
- Bell, D. N., D. G. Blanchflower (2010): Youth Unemployment: Déjà Vu?, IZA Discussion Papers 4705, Institute for the Study of Labour (IZA).
- BIBB (2010): *Datenreport zum Berufsbildungsbericht 2010: Informationen und Analysen zur Entwicklung der beruflichen Bildung*. Bonn: Bundesinstitut für Berufsbildung.
- BIBB (2011): *Berufsbildungsbericht 2011*. Bonn: Bundesinstitut für Berufsbildung.
- Blundell, R., M. Costa-Dias, C. Meghir, J. van Reenen (2004): Evaluating the employment effects of a mandatory job search programme, *Journal of European Economic Association*, 2 (4), 596-606.
- Bonnal, L., D. Fougère, A. Sérandon (1997): Evaluating the impact of French employment policies on individual labour market histories, *Review of Economic Studies* 64, 683–713.
- Breen, R. (1988): The work experience program in Ireland, *International Labour Review* 127 (4), 429-444.
- Brodaty, T., B. Crepon, D. Fougere, (2002): Do Long-Term Unemployed Workers Benefit from Active Labour Market Programmes? Evidence from France, 1986-1998, mimeo.
- Bundesregierung (1999): *Bündniss für Arbeit, Ausbildung und Wettbewerbsfähigkeit*. Berlin: Presse und Informationsamt der Bundesregierung.
- Bussemeyer, M., C. Trampusch (eds) (2012): *The political economy of collective skill formation*. Oxford: Oxford University Press.
- Caliendo, M. S. Künn, R. Schmidl (2011): Fighting Youth Unemployment: The Effects of Active Labor Market Policies, IZA DP No. 6222.
- Calmfors, L. (1994): Active labour market policy and unemployment - a framework for the analysis of crucial design features, OECD Economic Studies, No. 22.

- Card, D., J. Kluve, A. Weber, 2010: Active Labour Market Policy Evaluations: A Meta-Analysis, *Economic Journal*, 120 (548), 452-477.
- Carling, K., L. Larsson (2005): Does early intervention help the unemployed youth? *Labour Economics*, 12 (3), 301-19.
- Caroleo, E., F. Pastore (2001): How fine targeted is ALMP to the youth long term unemployed in Italy. CELPE Discussion Papers 62.
- Centeno, L., M. Centeno, I. A. Novo (2009): Evaluating job-search programmes for old and young individuals: Heterogeneous impact on unemployment duration, *Labour Economics*, 16 (1), 12-25.
- Cockx, B., S. Robin, C. Goebel (2010): Can income support for part-time workers serve as a stepping-stone to regular jobs? An application to young long-term unemployed women, *Empirical Economics*.
- CSO (2011): Central Statistics Office, Ireland - Quarterly National Household Survey Educational Attainment Thematic Report 201.
- De Giorgi, G. (2005): The New Deal for Young People five years on, *Fiscal Studies*, 26 (3), 371-83.
- de Koning, J. (1993): Measuring the placement effects of two wage subsidy schemes for the long term unemployed, *Empirical Economics* 18, 447-468.
- Dietrich, H., K. Dressel, F. Jank and W. Ludwig-Mayerhofer (2009): *Ausbildung im dualen System und Maßnahmen der Berufsvorbereitung*, Handbuch Arbeitsmarkt.
- Dolton P., D. O'Neill (1996): Unemployment duration and the restart effect: some experimental evidence, *Economic Journal*, 106 (435), 387-400.
- Dolton P., D. O'Neill (2002): The long-run effects of unemployment monitoring and work-search programmes: experimental evidence from the United Kingdom, *Journal of Labour Economics*, 20 (2), Pt 1.
- Dorsett, R. (2006): The new deal for young people: effect on the labour market status of young men, *Labour Economics*, 13, 405-422.
- Ehlert, C., J. Kluve, S. Schaffner (2011): Training + Temp Work = Stepping Stone? Evaluating an Innovative Activation Programme for Disadvantaged Youths. Ruhr Economic Papers, No. 249.

European Commission (2006): Employment in Europe 2006, Available online at: http://ec.europa.eu/employment_social/employment_analysis/employ_en.htm.

Eurostat (2012a): <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=de&pcode=tsdec460&plugin=0>; Code: TSDEC460 (last update 02.04.2012).

Eurostat (2012b): <http://appsso.eurostat.ec.europa.eu>

Forslund, A., O. Nordström Skans (2006): Swedish youth labour market policies revisited, Vierteljahreshefte zur Wirtschaftsforschung - *Quarterly Journal of Economic Research*, 75 (3), 168-85.

Fretwell, D.H., J. Benus, C.J. O'Leary (1999): Evaluating the Impact of Active Labour Market Programmes: Results of Cross Country Studies in Europe and Asia. Social Protection Discussion paper No. 9915, Washington: The World Bank.

Fuhrer, M., J. Schweri (2010): Two-year apprenticeships for young people with learning difficulties: a cost-benefit analysis for training firms, *Empirical Research in Vocational Education and Training*, 2 (2), 107-25.

Göbel, C., E. Verhofstadt (2008): Is Temporary Employment a Stepping Stone for Unemployed School Leavers?, ZEW Discussion Paper No. 08-093.

Gonon, P., M. Mauer (2012), Educational policy actors as stakeholders in the development of the collective skill system: the case of Switzerland, pp. 126-49 of Busemeyer and Trampusch (2012).

Graf, L., L. Lassnigg, J. Powell (2012): Austrian corporatism and institutional change in the relationship between apprenticeship training and school-based VET, pp. 150-178 of Busemeyer and Trampusch (2012).

Green, F., M. Hoskins, S. Montgomery (1996): The effects of company training, further education and the youth training scheme on the earnings of young employees, *Oxford Bulletin of Economics and Statistics* 58 (3), 469-488.

Gregg, P. (2001): The Impact of Youth Unemployment on Adult Unemployment in the NCDS, *Economic Journal*, 111, 623-653.

Gregg, P., E. Tominey (2005): The Wage Scar from Male Youth Unemployment, *Labour Economics*, 12 (4), 487-509.

Grubb, W. N., (1996): *Learning to Work: The Case for Re-integrating Job Training and Education*. New York: Russell Sage.

Grubb, W. N., P. Ryan (1999): *The Roles of Evaluation for Vocational Education and Training*. London: Kogan Page and ILO.

Hall, P., D. Soskice (2001): An introduction to varieties of capitalism, chapter 1 of Hall and Soskice (eds), *Varieties of Capitalism: the Institutional Foundations of Comparative Advantage*. Oxford: OUP.

Hämäläinen, K., V. Ollikainen (2004): Differential Effects of Active Labour Market Programmes in the Early Stages of Young People's Unemployment. VATT Research Reports 115, Helsinki.

Hardoy, I., (2001) Impact of Multiple Labour Market Programmes on Multiple Outcomes: The Case of Norwegian Youth Programmes, mimeo, University of Oslo.

Heckman J., R. Lalonde, J. Smith (1999): The economics and econometrics of active labour market programmes, in Ashenfelter O. and Card D. (eds.), *Handbook of Labour Economics*, 3a, 1865-2097.

ILO (2010): Global Employment Trends for Youth 2010. Geneva, International Labour Office.

Jensen, P., M. Rosholm, M. Svarer (2003): The response of youth unemployment to benefits, Incentives and sanctions. *European Journal of Political Economy*, 19, 301-316.

Kammermann, M. (2010): Job or further training? Impact of the Swiss Basic Federal Vocational Education and Training Certificate on the careers of low achieving young people, *Education Training*, 52 (5), 391-403.

Kluge, J. (2010): The effectiveness of European active labour market programmes, *Labour Economics* 17 (6), 904-918.

Kvasnicka, M., 2009. Does Temporary Help Work Provide a Stepping Stone to Regular Employment, NBER Chapters, in: *Studies of Labour Market Intermediation*, 335-372.

Larsson, L. (2003): Evaluation of Swedish Youth Labour Market Programmes, *Journal of Human Resources*, 38 (4), 891-927.

Lubyova, M., J. C. van Ours (1999): Effects of active labour market programmes on the transition rate from unemployment into regular jobs in the Slovak Republic, *Journal of Comparative Economics*, 27, 90-112.

O'Connell, P., F. McGinnity (1997): What works, who works? The employment and earnings effects of active labour market programmes among young people in Ireland, *Work, Employment and Society* 11 (4), 639-661.

OECD (1998): *Employment Outlook 1998*. Paris: Organisation for Economic Co-operation and Development.

OECD (2005): *Country Note: Germany*. Thematic Review on Adult Learning. OECD: Paris (<http://www.oecd.org/dataoecd/44/5/36341143.pdf>).

OECD (2006): *Employment Outlook 2006*. Paris: Organisation for Economic Co-operation and Development.

OECD (2011a): *Employment Outlook 2011*. Paris: Organisation for Economic Co-operation and Development.

OECD (2011b), *Education at a Glance 2011*. Paris: Organisation for Economic Co-operation and Development.

OECD (2011c): *Regions at a Glance 2011*. Paris: Organisation for Economic Co-operation and Development.

Quintini, G., J. P. Martin, S. Martin (2007): The Changing Nature of the School-to-Work Transition Process in OECD Countries, IZA Discussion Papers 2582.

Reinberg, A., M. Hummel (2005): Höhere Bildung schützt auch in der Krise vor Arbeitslosigkeit, *IAB Kurzbericht*, 9, 1–6.

Ryan, P. (2001): The school-to-work transition: a cross-national perspective, *Journal of Economic Literature*, 39(-), 34-92.

Ryan, P. (2010): Training markets, in P. Peterson, E. Baker, and B. McGaw (eds), *International Encyclopedia of Education*, vol. 8, pp 496-502. Oxford: Elsevier.

Ryan, P. (2011): Apprenticeship: between theory and practice, school and workplace, Working Paper no. 64, Swiss Leading House on Economics of Education, University of Zurich (ideas.repec.org/p/iso/educat/0064.html); published in M. Pilz (ed.), *The Future of VET in a Changing World*. Wiesbaden: Springer (2012).

Solga, H., M. Baas, B. Kohlrausch (2011): Übergangschancen benachteiligter Hauptschülerinnen und Hauptschüler. *IAB Forschungsbericht 6/2011*. Nürnberg: IAB.

Streeck, W., J. Hilbert, K.-H. van Kevelaer, F. Maier, H. Weber (1987): *The role of the social partners in vocational training and further training in the Federal Republic of Germany*. Berlin: CEDEFOP.

Thelen, K., M. Busemeyer (2012): Institutional change in German vocational training: from collectivism to segmentalism, pp. 68-100 of M. Busemeyer and C. Trampusch (eds), *The Political Economy of Collective Skill Formation*. Oxford: OUP.

Tiraboschi, M. (2012): Young workers in recessionary times: a caveat to (continental Europe) to reconstruct its labour law?, mimeo, University of Bergamo.

Verick, S. (2011): Who is Hit Hardest during a Financial Crisis? The Vulnerability of Young Men and Women to Unemployment in an Economic Downturn, in *From the Great Recession to Labour Market Recovery: Issues, Evidence and Policy Options*, ed. by I. Islam, S. Verick. ILO/Palgrave Macmillan.

Vodopivec, M. (1999): Does the Slovenian Public Work Programme Increase Participants' Chances to Find a Job?, *Journal of Comparative Economics*, 27 (1), 113-130.

Whitfield, K., C. Bourlakis (1991): An empirical analysis of YTS, employment and earnings, *Journal of Economic Studies* 18 (1), 42-56.

Wolter, S., P. Ryan (2011): Apprenticeship, pp. 521-76 in R. Hanushek, S. Machin and L. Wössman (eds), *Handbook of the Economics of Education*, Vol. 3. Amsterdam: Elsevier North-Holland.

Appendix

Tabelle A1: Evaluation studies by type of intervention

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Employment services						
Germany Caliendo et al. (2011)	Job search monitoring and assessment of career opportunities.	WLS	Employment	Long term	Positive	
Portugal Centeno et al. (2009)	Intensive job-search assistance and small basic skills training (e.g. writing a CV). Programme targets all people less than 25 years old before having been registered unemployed for 6 months. All eligible individuals who refuse to participate face a loss of entitlement to benefits.	Matching	Unemployment duration	Short term	Insignificant	Portuguese labour market is characterised by extremely high employment protection, long unemployment spells and generous unemployment insurance, and a low arrival rate of job offers.
United Kingdom Blundell et al. (2004)	Job search assistance for 4 months in NDYP. Participation is compulsory; every eligible individual who refuses to cooperate faces a loss of entitlement to benefits.	Matching	Employment	Short term	Positive	Evidence of important "programme introduction effect" in the sense that impact is much larger in the first quarter it is introduced than in subsequent quarters.
Classroom-based training						
Czech Republic Fretwell et al. (1999)	Providing unemployed with updated and additional skill and knowledge: several variants of retraining, including training in private and public institutions, on-the-job training in enterprises, and combinations of institutional and on-the-job training.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Insignificant	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Denmark Jensen et al. (2003)	Youth Unemployment programme (YUP) directed towards unemployed, low-educated youth. Young persons under the age of 25 without any formal education beyond secondary school, and who have been unemployed for 6 months during the last 9 months, are offered 18 months of specially designed vocational education. Since unemployment benefits are cut by 50% while in programme, this offer contains an incentive to undertake ordinary education on public study grants or to find a job. Refusal to participate in special education programmes or to enter the ordinary education system is sanctioned through a total loss of unemployment benefits.	Duration	Unemployment duration and transition rates from unemployment to schooling and employment.	Short term	Transition rate from unemployment to schooling is significantly raised by the YUP. Somewhat weaker effects on the transition rate from unemployment to employment.	
Finland Hämäläinen and Ollikainen (2004)	Preparatory training to provide basic skills during a short duration. It aims to offer basic skills required in the labour market.	Matching	Employment, earnings and unemployment duration.	Long term	Insignificant	
Finland Hämäläinen and Ollikainen (2004)	Adult, non-basic vocational training, which may involve also practical training (over 20 years, sometimes also for younger individuals). The average duration is about five months.	Matching	Employment, earnings, unemployment duration	Long term	Positive	
France Brodaty et al. (2002)	Training courses offered by state training centers. Length varies from 6 to 9 months. Aims to facilitate social and professional integration of young people leaving educational system without any diploma.	Matching	Employment	Short and medium term	Negative	Observation period: 1995-1998
France Brodaty et al. (2002)	See cell above.	Matching	Employment	Short and medium term	Positive	Observation period: 1986-1988

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Germany Caliendo et al. (2011)	Courses of a very short duration to improve auxiliary skills that are important in the application process, e.g. computer classes or language courses.	WLS	Employment	Long term	Positive	
Germany Caliendo et al. (2011)	Classroom training that may vary between part- or full-time courses. Predominantly focused on youths with vocational qualification who seem to require additional qualification to succeed in the labour market.	WLS	Employment	Long term	Positive	
Hungary Fretwell et al. (1999)	Providing unemployed with updated and additional skill and knowledge: several variants of retraining, including training in private and public institutions, on-the-job training in enterprises, and combinations of institutional and on-the-job training.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Positive	
Poland Fretwell et al. (1999)	Providing unemployed with updated and additional skill and knowledge: several variants of retraining, including training in private and public institutions, on-the-job training in enterprises, and combinations of institutional and on-the-job training.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Positive	
Sweden Larsson (2003)	Courses of various length and content, both vocational and non-vocational. Aimed at improving the skills of unemployed job seekers to match labour demand. Traditionally directed at individuals with low education and skills.	Matching	Earnings, employment and entering education.	Short term and long term	Insignificant	
Workplace-based training in public sector						
Czech Republic Fretwell et al. (1999)	Temporary income support by supporting transition employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	Insignificant	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
France Bonnal et al. (1997)	Workfare programme consisting of temporary public employment and educational or vocational courses for 16- to 25-year-olds.	Duration	Transition probabilities to regular jobs and unemployment.	Short term	Insignificant	For more educated young workers, programmes in the public sector decrease intensity of transition from subsequent unemployment spell to regular jobs; for that subgroup, "workfare" programmes may act as a signal of low employment performance.
France Brodaty et al. (2002)	Hiring of low-educated jobless young adults and long-term unemployed in community service jobs is heavily subsidised. Employers are public institutions, local administrations and non-profit associations.	Matching	Employment	Short and medium term	Negative	Observation period: 1995-1998
France Brodaty et al. (2002)	See cell above.	Matching	Employment	Short and medium term	Positive	Observation period: 1986-1988
Germany Caliendo et al. (2011)	Job creation schemes. Predominantly practically oriented, providing some type of work experience for youths with very little previous labour market experience.	WLS	Employment	Long term	Insignificant	
Hungary Fretwell et al. (1999)	Temporary income support by supporting transition employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	Insignificant	
Ireland O'Connell and McGinnity (1997)	Direct employment schemes subsidise temporary employment in public or voluntary sectors.	Logit	Employment	Short term	Insignificant	
Norway Hardoy (2001)	Employment programmes: temporary public employment or wage subsidies.	OLS / Selection / Other	Employment and education	Short term and long term	Insignificant	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Poland Fretwell et al. (1999)	Temporary income support by supporting transition employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	insignificant	
Sweden Larsson (2003)	Subsidised work programme aimed at providing working experience for young unemployed with a high school diploma. Participants were placed in both private and public sector, and lasted generally six months.	Matching	Earnings, employment and entering education.	Short and long term	Insignificant	
Sweden Forslund and Nordström Skans (2006)	Programme provides education or practice to facilitate a transition to work or to stimulate participation in regular education (for 18+19 years old). It includes the obligation to offer the target group a full-time activity after 100 days of unemployment (20-24 years).	Quasi-experimental (RDD) - matching	Unemployment duration	Short and long term	Positive and insignificant	The effects mainly appear early in the unemployment spell; no evidence of positive long run effects.
Workplace-based training in private sector						
Belgium Cockx et al. (2010)	Income support for low-paid part-time workers.	Duration	Transition from unemployment to non-subsidised, "regular" employment	Short term	Positive	Effects for long-term unemployed young women.

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Belgium Göbel and Verhofstadt (2008)	Temporary work contracts for young unemployed.	Propensity score matching	Permanent employment	Short term and long term	Positive	In the short run, temporary contracts delay the transition to permanent employment. In the long run, temporary employment reduces the time needed to transit to permanent employment. This is not an ALMP evaluation, but evaluates the role of temporary contracts.
Czech Republic Fretwell et al. (1999)	Lowering wage costs for employers.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	positive	
Finland Hämäläinen Ollikainen (2004)	Employment subsidies which vary among sectors.	Quasi-experimental: Propensity-score matching	Employment, earnings and unemployment duration.	Long term	Positive	
France Bonnal et al. (1997)	Alternating work/training programmes in private firms, which include apprenticeship, qualification and adaption contracts as well as courses for preparation to the working life. In this programme, amount of vocational and specific training is generally quite high.	Duration	Employment.	Short term	Positive	Principally beneficial to the less educated young workers, who may increase their human capital and work experience through these programmes.
France Brodaty et al. (2002)	Programme addressed to unskilled or long-term unemployed young adults. Very similar to apprenticeship contract; fixed-term contract with length between 6 and 24 months. Every participant prepares for a diploma. At least one-fourth of contract period must be devoted to training. This training takes place during working hours and is approved by collective agreements.	Matching	Employment	Short and medium term	Positive	Observation period: 1995-1998

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
France Brodaty et al. (2002)	See cell above.	Matching	Employment	Short and medium term	Negative	Observation period: 1986-1988
France Pénard and Sollogoub (1995)	Wage subsidies for firms to employ young workers to receive work experience and on-the-job training (apprenticeship).	Employment duration	Employment duration and search time for successive employment	Short term and medium term	Positive	
Germany Caliendo et al. (2011)	Wage subsidies which are limited to one year and equal to 50% of monthly wage.	WLS	Employment	Long term	Positive	
Germany Caliendo et al. (2011)	Wage subsidies which could either be taken up for one year and 60% replacement, or two years and 40% of replacement; employers had to guarantee a period of post-subsidy employment.	WLS	Employment	Long term	Positive	
Germany Kvasnicka (2008)	Temporary Help Services (THS): mostly transitory jobs of inferior quality are offered as temporary employment.	Quasi-experimental / propensity score matching	Employment	Long term	Insignificant	This ALMP is not specifically designed for young unemployed. Effects reported for individuals aged 18-40.
Hungary Fretwell et al. (1999)	Wage subsidies to lower wage costs for employers.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	Positive	
Ireland Breen (1988)	Work experience programme which provided unemployed young people with 26 weeks of work experience on an employer's premises.	OLS / selection / other	Employment		Positive	
Ireland O'Connell and McGinnity (1997)	Employment subsidies to lower employment costs.	Logit	Employment	Short term	Positive	
Ireland O'Connell and McGinnity (1997)	General training (education in a broader sense) and job specific training.	Logit	Employment	Short term	Positive	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Italy Caroleo and Pastore (2001)	Training (post diploma) or on-the-job (apprenticeship) training.	Multinomial Logit	Employment	Short term and long term	Insignificant	
Netherlands de Koning (1993)	Wage subsidies (social premia) for hiring long-term unemployed.	OLS / Selections / Others (Panel data)	Exit from long run unemployment.	Short term and long term	Positive	Displacement of people who have been unemployed for a shorter time. Only 15 to 30 percent are additional to the employment in the economy.
Netherlands de Koning (1993)	Agency labour subsidies to alleviate job placements.	OLS / Selections / Others (Cross sectional data)	Exit from long run unemployment.	Short term and long term	Insignificant	Little impact on total employment.
Poland Fretwell et al. (1999)	Wage subsidies to lower wage costs for employers.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	Positive	
Sweden Larsson (2003)	Subsidised work programme aimed at providing working experience for young unemployed with a high school diploma. Participants were placed in both private and public sector, and lasted generally six months.	Matching	Earnings, employment and entering education.	Short and long term	Insignificant	
United Kingdom Blundell et al. (2004)	Wage subsidies paid to employers.	Matching	Employment	Short term	Positive	
United Kingdom Green et al. (1996)	Youth Training Scheme in late 1980's: on-the-job training course for school leavers aged 16 and 17.	OLS / selection / other	Earnings	Medium to long term	Insignificant	
United Kingdom Whitfield and Bourlakis (1991)	See cell above.	OLS / selection / other	Employment and earnings		Positive effect on employment and insignificant for earnings.	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
United Kingdom Dorsett (2006)	New Deal for Young People (esp. young men) which includes different training schemes.	Matching	Employment	Short term	Positive	A period of subsidised employment is a more effective means of exiting unemployment and securing unsubsidised employment than the other options available under NDYP.
Self-employment support						
Czech Republic Fretwell et al. (1999)	Small loans to support self-employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Insignificant	
Hungary Fretwell et al. (1999)	Small loans to support self-employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Positive	
Poland Fretwell et al. (1999)	Small loans to support self-employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Positive	
Combination of programmes						
Germany Ehlert et al. (2011)	Combination of individual coaching, classroom training, and temporary work for youths without lower secondary school degree, without vocational training degree and/or without labour market experience.	Quasi-experimental	Employment	Short term	Positive	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Norway Hardoy (2001)	Either vocational youth programmes, consisting of a combination of work experience, on-the-job and off-the-job training, or training programmes offering different classroom courses.	OLS / Selection / Other	Employment and education	Short term and long term	Negative	
Sweden Carling and Larsson (2005)	Approximately 60% of assignments were into workplace practice; roughly 15% into training; in the rest of the cases, the programme consisted of a combination of both training and practice. The main purpose of the measure is to prevent long-term unemployment by guaranteeing an assignment to some labour market programme within 100 days of unemployment.	Diff-in-diff	Employment	Short term	Insignificant	No evidence that the measure did significantly improve the future labour market situation of the youth, which suggests that early intervention in the unemployment spell is not important.
United Kingdom De Giorgi (2005)	New Deal for Young People. After 6 months of job search allowance, programme is devoted to intensive job-search assistance and is followed either by subsidised employment, work in an environmental task force, the voluntary sector or full time training and education.	'Sharp' regression discontinuity (RD) design	Employment	Long term	Positive	No evidence of general equilibrium and substitution effects.

Tabelle A2: Evaluation studies by institutional type of country

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Liberal market countries						
United Kingdom Blundell et al. (2004)	Job search assistance for 4 months in NDYP. Participation is compulsory; every eligible individual who refuses to cooperate faces a loss of entitlement to benefits.	Matching	Employment	Short term	Positive	Evidence of important "programme introduction effect" in the sense that impact is much larger in the first quarter it is introduced than in subsequent quarters.
De Giorgi (2005)	Wage subsidies paid to employers. New Deal for Young People. After 6 months of job search allowance, programme is devoted to intensive job-search assistance and is followed either by subsidised employment, work in an environmental task force, the voluntary sector or full time training and education.	Matching 'Sharp' regression discontinuity (RD) design	Employment Employment	Short term Long term	Positive Positive	No evidence of general equilibrium and substitution effects.
Green et al. (1996)	Youth Training Scheme in late 1980's: on-the-job training course for school leavers aged 16 and 17. See cell above.	OLS / selection / other	Earnings	Medium to long term	Insignificant	
Whitfield and Bourlakis (1991)		OLS / selection / other	Employment and earnings		Positive effect on employment and insignificant for earnings.	
Dorsett (2006)	New Deal for Young People (esp. young men) which includes different training schemes.	Matching	Employment	Short term	Positive	A period of subsidised employment is a more effective means of exiting unemployment and securing unsubsidised employment than the other options available under NDYP.

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Ireland Breen (1988)	Work Experience programme (WEP) in effect 1978-1987: provide unemployed young people with 26 weeks of work experience on an employer's premises.	OLS / Selection / Other	Employment	Medium term	Positive	
O'Connell and McGinnity (1997)	Direct employment schemes subsidise temporary employment in public or voluntary sectors.	Logit	Employment	Short term	Insignificant	
	Employment subsidies to lower employment costs.	Logit	Employment	Short term	Positive	
	General training (education in a broader sense) and job specific training.	Logit	Employment	Short term	Positive	
Co-ordinated with mostly school-based VET						
Sweden Larsson (2003)	Subsidised work programme aimed at providing working experience for young unemployed with a high school diploma. Participants were placed in both private and public sector, and lasted generally six months.	Matching	Earnings, employment and entering education.	Short and long term	Insignificant	
	Courses of various length and content, both vocational and non-vocational. Aimed at improving the skills of unemployed job seekers to match labour demand. Traditionally directed at individuals with low education and skills.	Matching	Earnings, employment and entering education.	Short term and long term	Insignificant	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Carling and Larsson (2005)	Approximately 60% of assignments were into workplace practice; roughly 15% into training; in the rest of the cases, the programme consisted of a combination of both training and practice. The main purpose of the measure is to prevent long-term unemployment by guaranteeing an assignment to some labour market programme within 100 days of unemployment.	Diff-in-diff	Employment	Short term	Insignificant	No evidence that the measure did significantly improve the future labour market situation of the youth, which suggests that early intervention in the unemployment spell is not important.
Forslund and Nordström Skans (2006)	Programme provides education or practice to facilitate a transition to work or to stimulate participation in regular education (for 18+ 19 years old). It includes the obligation to offer the target group a full-time activity after 100 days of unemployment (20-24 years).	Quasi-experimental (RDD) - matching	Unemployment duration	Short and long term	Positive and insignificant	The effects mainly appear early in the unemployment spell; no evidence of positive long run effects.
France Bonnal et al. (1997)	Workfare programme consisting of temporary public employment and educational or vocational courses for 16- to 25-year-olds.	Duration	Transition probabilities to regular jobs and unemployment.	Short term	Insignificant	For more educated young workers, programmes in the public sector decrease intensity of transition from subsequent unemployment spell to regular jobs; for that subgroup, "workfare" programmes may act as a signal of low employment performance.

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
	Alternating work/training programmes in private firms, which include apprenticeship, qualification and adaption contracts as well as courses for preparation to the working life. In this programme, amount of vocational and specific training is generally quite high.	Duration	Employment.	Short term	Positive	Principally beneficial to the less educated young workers, who may increase their human capital and work experience through these programmes.
Brodaty et al. (2002)	Training courses offered by state training centers. Length varies from 6 to 9 months. Aims to facilitate social and professional integration of young people leaving educational system without any diploma.	Matching	Employment	Short and medium term	Negative	Observation period: 1995-1998
	Programme addressed to unskilled or long-term unemployed young adults. Very similar to apprenticeship contract; fixed-term contract with length between 6 and 24 months. Every participant prepares for a diploma. At least one-fourth of contract period must be devoted to training. This training takes place during working hours and is approved by collective agreements.	Matching	Employment	Short and medium term	Positive	Observation period: 1995-1998
	Hiring of low-educated jobless young adults and long-term unemployed in community service jobs is heavily subsidised. Employers are public institutions, local administrations and non-profit associations.	Matching	Employment	Short and medium term	Negative	Observation period: 1995-1998

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
	Programme addressed to unskilled or long-term unemployed young adults. Very similar to apprenticeship contract; fixed-term contract with length between 6 and 24 months. Every participant prepares for a diploma. At least one-fourth of contract period must be devoted to training. This training takes place during working hours and is approved by collective agreements.	Matching	Employment	Short and medium term	Negative	Observation period: 1986-1988
	Hiring of low-educated jobless young adults and long-term unemployed in community service jobs is heavily subsidised. Employers are public institutions, local administrations and non-profit associations.	Matching	Employment	Short and medium term	Positive	Observation period: 1986-1988
	Training courses offered by state training centers. Length varies from 6 to 9 months. Aims to facilitate social and professional integration of young people leaving educational system without any diploma.	Matching	Employment	Short and medium term	Positive	Observation period: 1986-1988
Pénard and Sollogoub (1995)	Wage subsidies for firms to employ young workers to receive work experience and on-the-job training (apprenticeship).	Employment duration	Employment duration and search time for successive employment	Short term and medium term	Positive	
Finland Hämäläinen and Ollikainen (2004)	Employment subsidies which vary among sectors.	Quasi-experimental: Propensity-score matching	Employment, earnings and unemployment duration.	Long term	Positive	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
	Preparatory training to provide basic skills during a short duration. It aims to offer basic skills required in the labour market.	Matching	Employment, earnings and unemployment duration.	Long term	Insignificant	
	Adult, non-basic vocational training, which may involve also practical training (over 20 years, sometimes also for younger individuals). The average duration is about five months.	Matching	Employment, earnings, unemployment duration	Long term	Positive	
Norway Hardoy (2001)	Employment programmes: temporary public employment or wage subsidies.	OLS / Selection / Other	Employment and education	Short term and long term	Insignificant	
	Either vocational youth programmes, consisting of a combination of work experience, on-the-job and off-the-job training, or training programmes offering different classroom courses.	OLS / Selection / Other	Employment and education	Short term and long term	Negative	
Czech Republic Fretwell et al. (1999)	Providing unemployed with updated and additional skill and knowledge: several variants of retraining, including training in private and public institutions, on-the-job training in enterprises, and combinations of institutional and on-the-job training.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Insignificant	
	Temporary income support by supporting transition employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	Insignificant	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
	Lowering wage costs for employers.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	positive	
	Small loans to support self-employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Insignificant	
Hungary Fretwell et al. (1999)	Providing unemployed with updated and additional skill and knowledge: several variants of retraining, including training in private and public institutions, on-the-job training in enterprises, and combinations of institutional and on-the-job training.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Positive	
	Temporary income support by supporting transition employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	Insignificant	
	Wage subsidies to lower wage costs for employers.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	Positive	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
	Small loans to support self-employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Positive	
Poland Fretwell et al. (1999)	Providing unemployed with updated and additional skill and knowledge: several variants of retraining, including training in private and public institutions, on-the-job training in enterprises, and combinations of institutional and on-the-job training. Temporary income support by supporting transition employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Positive	
	Wage subsidies to lower wage costs for employers.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term	insignificant	
	Small loans to support self-employment.	Quasi-experimental: Differences estimator; matched pair analysis	Employment	Short term and long term	Positive	
Co-ordinated with large apprenticeship-based VET						

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Germany Caliendo et al. (2011)	Job creation schemes. Predominantly practically oriented, providing some type of work experience for youths with very little previous labour market experience.	WLS	Employment	Long term	Insignificant	
	Wage subsidies which are limited to one year and equal to 50% of monthly wage.	WLS	Employment	Long term	Positive	
	Job search monitoring and assessment of career opportunities.	WLS	Employment	Long term	Positive	
	Classroom training that may vary between part- or full-time courses. Predominantly focused on youths with vocational qualification who seem to require additional qualification to succeed in the labour market.	WLS	Employment	Long term	Positive	
Ehlert et al. (2011)	Combination of individual coaching, classroom training, and temporary work for youths without lower secondary school degree, without vocational training degree and/or without labour market experience.	Quasi-experimental	Employment	Short term	Positive	
Kvasnicka (2008)	Temporary Help Services (THS): mostly transitory jobs of inferior quality are offered as temporary employment.	Quasi-experimental / propensity score matching	Employment	Long term	Insignificant	This ALMP is not specifically designed for young unemployed. Effects reported for individuals aged 18-40.

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Netherlands de Koning (1993)	Wage subsidies (social premia) for hiring long-term unemployed.	OLS / Selections / Others (Panel data)	Exit from long run unemployment.	Short term and long term	Positive	Displacement of people who have been unemployed for a shorter time. Only 15 to 30 percent are additional to the employment in the economy. Little impact on total employment.
Denmark Jensen et al. (2003)	Agency labour subsidies to alleviate job placements. Youth Unemployment programme (YUP) directed towards unemployed, low-educated youth. Young persons under the age of 25 without any formal education beyond secondary school, and who have been unemployed for 6 months during the last 9 months, are offered 18 months of specially designed vocational education. Since unemployment benefits are cut by 50% while in programme, this offer contains an incentive to undertake ordinary education on public study grants or to find a job. Refusal to participate in special education programmes or to enter the ordinary education system is sanctioned through a total loss of unemployment benefits.	OLS / Selections / Others (Cross sectional data) Duration	Exit from long run unemployment. Unemployment duration and transition rates from unemployment to schooling and employment.	Short term and long term Short term	Insignificant Transition rate from unemployment to schooling is significantly raised by the YUP. Somewhat weaker effects on the transition rate from unemployment to employment.	
Mediterranean countries						
Italy Caroleo and Pastore (2001)	Training (post diploma) or on-the-job (apprenticeship) training.	Multinomial Logit	Employment	Short term and long term	Insignificant	

Country and study	Type of intervention	Evaluation method	Outcome	Time horizon	Programme effect	Comments
Portugal Centeno et al. (2009)	Intensive job-search assistance and small basic skills training (e.g. writing a CV). Programme targets all people less than 25 years old before having been registered unemployed for 6 months. All eligible individuals who refuse to participate face a loss of entitlement to benefits.	Matching	Unemployment duration	Short term	Insignificant	Portuguese labour market is characterised by extremely high employment protection, long unemployment spells and generous unemployment insurance, and a low arrival rate of job offers.
Other countries						
Belgium Cockx et al. (2010)	Income support for low-paid part-time workers.	Duration	Transition from unemployment to non-subsidised, "regular" employment	Short term	Positive	Effects for long-term unemployed young women.
Göbel and Verhofstadt (2008)	Temporary work contracts for young unemployed.	Propensity score matching	Permanent employment	Short term and long term	Positive	In the short run, temporary contracts delay the transition to permanent employment. In the long run, temporary employment reduces the time needed to transit to permanent employment. This is not an ALMP evaluation, but evaluates the role of temporary contracts.

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