Why education matters to employers: a vignette study in Italy, England and the Netherlands

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Chapter 3

The institutional framework of school-to-work transitions in Italy, England and the Netherlands

3.1. Description of the case studies

3.1.1. Transitions from school to work in Italy

Stratification

By international standards, Italy is a country characterized by low rates of educational attainment, a result of late mass scholarisation and delayed industrialization (Checchi 2003). A recent reform of the lower secondary education system (Legislative Decree no. 59 of 2004 in application of the reform law 53/2003) extended compulsory education until the age of sixteen. With regard to the indicators commonly used in comparative stratification research to describe national education systems, Italy can be classified as highly standardized, with a medium degree of stratification and low vocational specificity (Hannan, Raffe, and Smyth 1996; Bernardi 2003; Iannelli and Soro-Bonmatì 2003; Schizzerotto and Barone 2006)[1]. After primary school, there are two cycles of secondary education: a comprehensive first-level cycle lasting three years, followed by a second cycle of the duration of five years. Upper secondary education, i.e. the second cycle, has a tripartite structure differentiating academically-oriented curricula (*Licei*), where teaching is organized around more general subjects, from vocational ones (*Istituti tecnici* and *Istituti Professionali*), more attuned to labour market needs. Vocational training courses that cater to skilled manual and lower non-manual occupations are also provided by the regions, but their function as a vocational route into employment is dubious at best. In fact, this system operates parallel to the one of formal schooling (Schizzerotto and Cobalti 1998; Crouch, Finegold, and Sako 1999) and has been labelled a "parascholastic system", directed at drop-outs and dismissed by the many as "second-rate instruction" (Regini 1997: 270). A reform introduced in 2008 (law 133/2008) intends to increase the labour market orientation of vocational programmes, in order to more clearly differentiate them from academic education. Both State-provided programmes and training organized at the regional level have been formally recognized as possible paths for completing compulsory education.

In 1969, university access was opened to any holder of a leaving certificate from five-year upper secondary education, regardless of the specific track attended (law 910/1969). However, Checchi (2003) observes that the Italian education system has *de facto* remained stratified, as transition rates to tertiary education strongly varies across types of secondary school. Parental education

1 Schizzerotto and Barone (2006) provide a thorough analysis of the legislative measures adopted over the years by Italian governments to reform the education system, in both historical and comparative perspective. They stress that the Italian legislator aimed to widen participation in education to the members of the working class and to contain the dramatically high number of school drop-outs. However, the measures adopted were never part of an overarching reform of the education system, a criticism also expressed by Ballarino (2011) and Triventi (2012).

heavily affects the educational choices and achievements of students: children of highly educated parents are more likely to continue their studies in academic upper secondary education, and show high transition rates to university; on the other hand, children from a disadvantaged background are more likely to opt for vocational education after compulsory schooling and their studies are often characterized by repeated years and track changes. In spite of the overall openness of university access, the graduation rate has been chronically low (even though, according to the most recent data from *Almalaurea*, a consortium of Italian universities, the number of drop-outs is slowly decreasing). For many bachelor's and master's programmes, there is no formal obligation to regularly attend classes. Not only exams can be postponed indefinitely, but there is generally no limit to the number of times students are allowed to a resit. Completing university in due time is thus a characteristic that can set a job applicant apart (Recchi 2007).

Tertiary education is generally perceived as too theoretical and takes place exclusively in universities, after a failed attempt to create a system of higher non-university vocational education (*Istruzione e Formazione Tecnica Superiore*). The largest employers' association (*Confindustria*) pushed for establishing a shorter, vocationally-oriented university course at the end of which students would be awarded a new qualification (*diploma universitario*), but enrolments remained very modest and the system failed to take off. University titles have legal validity in Italy: entry into a range of positions in the public sector is conditional on the possession of a tertiary degree. However, legal validity was not extended to the new vocational qualifications, a fact that probably contributed to their very low intake (Ballarino 2011). Recently, new forms of post-secondary vocational education have been introduced, with the aim of developing professional qualifications for high-level technicians and service sector specialists. Post-secondary education can be provided by the State (in the newly established *Istituti Tecnici Superiori*) or managed at the regional level (with a strengthening of the *Istruzione e Formazione Tecnica Superiore*). At the time of writing, it is still too early to discuss the implications of this reform for the employability of school leavers, as the number of courses activated and the related uptake are still limited.

Standardization

The Italian education system has traditionally been very centralized. At the primary and secondary level, the same teacher qualifications are required all over the country and school funding is almost exclusively financed via general taxation and varies little from one region to the other (Checchi, Ichino, and Rustichini 1999; Bernardi, 2003). Recent reforming acts intended to partly decentralize the governance of the education system, in an effort to attenuate its well-known rigidities and cumbersome bureaucracy. From the 1990s, the legislation has mandated some regulations at the regional level: local providers

were granted a larger degree of autonomy in deciding about the allocation of curricular hours, and the organization of optional extra-curricular activities, often in collaboration with local authorities and representatives from the economic sector. Overall, however, the education system still remains centrally regulated. In particular, Schizzerotto and Barone (2006) stress the pyramidal governance structure of the Italian education system, in which the Ministry of Education still holds control over the distribution of resources, the recruitment of teachers and the definition of curricula. Curricular adjustments decided locally have to be implemented within the rigid boundaries which are determined by the Ministry.

After five years of upper secondary education, regardless of the track attended, students have to pass a State exam (*esame di maturità*) composed of two tests whose standards are set at the national level and one multidisciplinary test which is decided at the school level (law 425/2007 and law 1/2007). Half of the members of the examination board are external and appointed by the Ministry from teachers of upper secondary public schools. Provided the exam is successfully passed, students obtain an upper secondary certificate (*diploma*) that summarizes their performance in a grade ranging from 60 to 100. The grade is calculated on the basis of one's overall performance throughout the years, as well as the result of the final exam. The diploma certificate is valid throughout the country and reports the branch of study and duration of the course, the final mark, the subjects that compose the curriculum and the total number of teaching hours per subject (Eurypedia 2013).

Centralization is rather strong even at the tertiary level, where "despite the rhetoric about 'university autonomy', some major organizational aspects remain firmly constrained by state guidelines, in particular the basic curriculum of programs and the overall amount of tuition fees" (Recchi 2007: 406). A recent trend towards greater autonomy is worth mentioning: each *alma mater* has been granted a certain room of discretion in deciding about the curricular content, yet within specific limits that are centrally agreed upon. Each university has the autonomy to establish the formative objectives of its study programmes but these have to be in line with the formative objectives, learning activities and minimum amount of required credits established at national level for each class of *laurea* (a class being a group of study programmes within the same subject area). Universities can autonomously decide about the organizational aspects related to teaching and procedures and methods for assessing students, while the grading system is subject to central regulations (Eurypedia 2013).

Vocational specificity

As observed by numerous contributors, secondary education tracks are only weakly linked to specific occupations and their content is fairly general, even within the vocational route (Schizzerotto and Cobalti 1998; Iannelli and Soro-Bonmatì 2003; Schizzerotto and Barone 2006). Some programmes

devote one part of the curricula to internships, where students receive training for a short time (usually less than three months) in a firm. However, the ad-hoc character of these initiatives and the lack of centralized regulation with regard to the length and content of firm training undermine the extent to which internships can be valued on the labour market. According to a recent survey of Italian employers of upper secondary vocational school leavers in the Lombardy region, employers often complain that internships are far too short to represent a meaningful formative experience for students (Ballarino and Perotti 2011b). Cooperation between schools and economic actors (large firms, small and medium enterprises, chambers of commerce, trade and employer representatives' associations) in co-designing the programmes generally follow a bottom-up logic. While on the one hand these forms of partnership are firmly rooted in the local context and enable the matching between school curricula and local (or at most regional) labour market needs, on the other hand they mainly rest on individual networks of relationships between school heads and some members of the business sector, and are not formally institutionalized.

Low vocational specificity also characterizes tertiary education, organized according to a unified system, predominantly academic and theory-oriented (Shavit et al. 2007). After the implementation of the Bologna Process and the reorganization of the university curriculum according to a 3+2 form (i.e. a three-year Bachelor's programme followed by a two-year Master's), a decree stated that the new curricula should be designed jointly with members of trade unions and representatives of entrepreneurial and professional bodies in order to ensure the alignment with labour market demands. Unfortunately, economic actors saw little or no incentive to co-design university curricula due to the particular configuration of the Italian economy, characterized by small firms operating in sectors with low investment in technology (Ballarino 2011). Some initiatives were launched, but at the peripheral level and especially in smaller, specialized universities with only a few faculties (e.g. polytechnics) rather than in generalist, multi-disciplinary ones. However, as in the case of upper secondary education, collaborations were rarely institutionalized and their success depended on the strength and quality of networks of personal relationships between staff members and firms, professional bodies or local authorities (Ballarino and Perotti 2011a).

Employment protection and labour market flexibility

On the labour market side, employment relations are traditionally rigid, with a high degree of segmentation between insiders and outsiders. Stable employment is a prerogative of the former, whereas the latter are often locked in in a series of fixed-term contracts, with very few guarantees in terms of income support or social protection (Iannelli and Soro-Bonmatì 2003; Scherer 2004; Barbieri and Scherer 2009). Characterized by one of the highest scores on

the OECD rigidity index, the Italian labour market is particularly resistant to change, and has remained fundamentally dual due to the fact that the measures adopted to increase flexibility (Treu Law n. 196/1997 and Biagi Law n. 30/2003) introduced flexible types of work arrangements only at the margins, in a process of partial and targeted labour market deregulation (Barbieri and Scherer 2009; Barbieri 2011). Atypical employment mainly affects women, low-educated employees and first time job-entrants (i.e. cohorts of school leavers), who are increasingly exposed to the risk of entrapment in precarious jobs within the secondary labour market. The fact that tertiary education leavers do not have significantly higher chances to move from atypical to stable employment than the lesser educated suggests that employers do not use temporary contracts as a screening device, contradicting the 'entry port' hypothesis. Empirical evidence from Barbieri and Scherer (2009) points to a substitution effect: fixed-term contracts replace job positions that were formerly stable.

Overall, the Italian labour market is characterized by a very high youth unemployment rate, a considerable share of long-term unemployed or NEET (neither in employment nor in education and training) and particularly flat career paths (Pisati and Schizzerotto 1999). Strict constraints on hiring and firing seem to have led to a general immobility in the labour market, concerning both outflows and inflows, with a discouraging effect for the youngest generations of labour market entrants.

Internships are often used as a way to employ relatively skilled labour at a cheap rate. Tiraboschi (2006) identifies in the legislative conundrum for the regulation of apprenticeships in Italy one of the main deterrents for an efficient use of these training programmes by firms. By law, trainees are compensated with lower pay levels than regular workers, thus introducing a distorted incentive for employers to cut labour costs. This is especially true in small firms, representing the lion´s share of the Italian industrial landscape, in which the regulation of youth contracts via collective bargaining is particularly weak (Ryan and Garonna 1991). This way, apprenticeships have been used improperly as an instrument to introduce flexibility in a traditionally rigid labour market. Tiraboschi (2006: 2) describes them as "a kind of safety valve for dealing with the persistent rigidities of standard employment contracts". In a similar vein, Ryan (2011: 11) warns against the limited learning content of many training schemes in the Italian labour market, in which training standards are absent, set too low, or – if present - are not enforced.

In summary, Italy can be described as a country with: intermediate stratification; high standardization at both secondary and tertiary level; low vocational specificity at both secondary and tertiary level; an undifferentiated, theory-oriented tertiary education system without vocational tracks; a relatively small share of tertiary degree holders; predominantly internal labour markets with very low occupational mobility; and dual employment relationships, combining high level of employment protection for insiders with very few guarantees for outsiders.

3.1.2. Transitions from school to work in the Netherlands

Stratification

The Dutch education system is described in the comparative literature as highly stratified (De Graaf and Ultee 1998; Van der Velden and Wolbers 2007). Students are assigned to qualitatively different tracks (lower vocational, intermediate general and higher general education) at the age of 12. Entry into higher levels of education is conditional on the track followed at the prior level. Track allocation is decided on the basis of a national test and after taking the advice of primary school teachers into consideration. Three streams offer programmes at increasing levels of ability, namely: VMBO (four-year preparatory education leading to upper secondary vocational education), HAVO (five-year senior general secondary education, leading to higher vocational education) and VWO (six-year pre-university secondary education). Once students are tracked, the natural progression is upwards within a given track. Moves between tracks are to some extent possible, but they usually imply delays, the fulfilment of gap years, or additional examinations. Hence, in stratified systems each track is associated with different odds of continuing until tertiary education (Allmendinger 1989; Müller and Shavit 1998).

Tertiary education has a binary structure, which has been formalized in 1986 with the Act on Higher Vocational Education (*Wet op het HBO*): next to universities with a traditionally academic orientation, higher education institutes of a vocational nature (*Hogescholen*, also called universities of applied sciences or HBO institutes, from *hoger beroepsonderwijs*) are well-established, and even register higher enrolments than the academic universities. HBO institutes issue bachelor's degrees, which give access to master's programmes at regular universities (although the latter can specify their own intake requirements). A bachelor from HBO normally lasts four years and includes a compulsory internship in a firm. Employers look favourably at HBO degree courses and emphasize their vocational component (Arthur, Brennan, and De Weert 2007; De Weert 2007; Perotti 2011). There are close linkages between HBO institutes and the labour market, which are promoted and supervised by the Council for Higher Vocational Education (*HBO-raad*)

Access to tertiary education, both vocational and academic, is conditional on attendance of specific tracks at the secondary level. Higher vocational education is open to students that possess a certificate from senior general secondary education (HAVO), middle-management training (MBO level 4) or pre-university secondary education (VWO). Entry to higher education courses is also dependent on the subjects chosen for school-leaving examinations at the secondary level. Admission to university education is open to students with a pre-university secondary education certificate or a HBO qualification.

A high share of the youth population is attending tertiary education, and the percentage of degree holders (considering both university and HBO

credentials) is one of the highest among OECD countries, reaching 40% in the age bracket from 25 to 34 years old. Tertiary education expansion mainly took place between the 1960s and the 1990s, and stabilized thereafter. The pattern of expansion and the one of vocational differentiation probably went hand in hand: by offering a vocational option, Dutch tertiary education represented an attractive option both for those coming from more disadvantaged backgrounds (who would have otherwise opted for senior vocational education at MBO level) and for those who attempted the university path but failed[2].

Standardization

At the general secondary level, the education system is highly standardized in terms of funding, curricula, teacher training and nationwide certification system (Hannan et al. 1996). In secondary vocational education, examinations should meet the standards set at the central level: while the Education Inspectorate is responsible for monitoring teaching and examination quality, the single providers autonomously decide about the form that the examination can take within the statutory framework. Given the high levels of stratification and standardization, employers can rely on clear signals from the education system, from which they can infer with reasonable accuracy the skill content of any particular qualification. Thus, the Dutch system is patterned along a qualificational space (Maurice, Sellier, and Silvestre 1986; Müller and Shavit 1998): a large proportion of the graduating cohort has a clearly defined occupational identity at the end of the educational trajectory and widely recognizable educational credentials structure the labour market entry of school leavers. As a consequence, the association between qualifications and occupational prestige is relatively strong (nearly twice as large as in Britain, and stronger than in Italy according to Müller and Shavit 1998).

Vocational specificity

The Dutch education system has a high degree of vocational specificity. School-based, vocational upper secondary education is characterized by strong linkages with the labour market and it sets itself apart from both academic upper secondary education and higher education (that is, differentiation is both horizontal and vertical). Vocational qualifications have a strong value on the labour market: employers participate in tripartite bodies where curricula are co-designed, discussed, and updated, and specific prerequisites for occupational entry – with regard to both the level and content of educational qualifications - are set. Thereby, correspondence between educational qualifications and occupations at labour market entry is secured by state regulations and

2 On the contrary, in Italy, the lack of a vocational option at the tertiary level led to a system that does not cater to weaker students and that discourages the enrolment of individuals from lower socioeconomic backgrounds (Arum, Gamoran, and Shavit 2007).

professional or technical bodies for a very large number of occupations.

Within upper secondary vocational education (*middelbaar beroepsonderwijs*, MBO), students can choose between two types of pathways, school-based or workplace-based, defined by the amount of time that is spent at the workplace. Intake is higher in the school-based alternative, which has gradually raised its workplace training requirements, now amounting to about half of the curriculum and thus qualifying the Netherlands as a dual system (Anderson and Nijhuis 2012). Since 1997, MBO is provided at four different levels, ranging from assistant and basic vocational training (levels one and two respectively) to professional and middle-management training levels (levels three and four). MBO education is provided publically by regional training centres (*Regionale Opleidingcentra*). Their activity is monitored by seventeen national knowledge centres (*Kenniscentra*) that are responsible for providing a clearly recognizable qualification structure that outlines the skills and occupational profiles corresponding to each qualification title. National knowledge centres collaborate closely with business sector organizations in order to strengthen and maintain the link between vocational qualification and the skill demands of the business. Employers are represented in their management boards. The centres are grouped within an umbrella organization (*Stichting Samenwerking Beroepsonderwijs Bedrijfsleven*[3]) that monitors the quality of the examinations, supervises the allocation of training placements and decides which firms are qualified to offer training. In recent years, vocational education has become competence-based: exit qualifications have been updated so that diploma requirements are now expressed in the form of core work tasks, processes and competences that a school leaver should possess or be able to execute in order to qualify for a specific occupation[4].

Vocationally-specific secondary education systems like the Dutch one are usually praised for their role in smoothly channelling school-leavers into the labour market, thus keeping unemployment rates particularly low. In international perspective, Germany, Austria and the Netherlands – all characterized by developed apprenticeship systems or school-based vocational education – stand out for early careers only occasionally interrupted by unemployment spells and rapid transitions of school leavers into employment, in stark contrast with countries like Italy or Spain (Van der Velden 2001; Gangl 2003; Quintini, Martin, and Martin 2007). Opposite to the Italian case, almost two thirds of upper secondary school-leavers in the Netherlands find a job within 6 months from leaving school, showing even better prospects than tertiary graduates. On the other hand, vocational education seems to be associated with significantly less prestigious occupations than general tracks within the same educational level. Shavit and Müller (2000) refer to these

3 This foundation has replaced, from January 2012, the Colo foundation.

4 In the school year 2010/2011, a total of 237 profiles were produced. By August 2013, all qualification profiles should be competence-based (Eurypedia 2013).

two counterbalancing functions of vocational education as, respectively, safety net and diversion. The two roles are not mutually exclusive and especially in countries like the Netherlands, where vocational education is both occupationally specific and tightly linked to the labour market, they both tend to be strong.

Employment protection and labour market flexibility

Hannan et al. (1996) define the relationship between the Dutch education system and the labour market as a "collinear linkage": even if training is not delivered jointly with employers and mainly takes place in schools, there is a highly developed occupational labour market, skills are portable within a given industry and easily recognized by employers. Certification of school-based occupational training is a fundamental aspect of the Dutch transition system that renders skills truly portable, contrary to upper secondary qualifications in Italy, which serve as 'general certificates of learning' (Busemeyer 2009: 382). In the Netherlands, the youth regulatory system follows the logic of 'institutional inclusion' (Ryan and Garonna 1991): employers are provided with incentives to hire young people ('age for wage' pay structures and an education system that equips school-leavers with the necessary skills to be readily productive once hired). Ryan (2001) and Busemeyer (2009) emphasize the institutional complementarities that render this type of transition system possible, namely a model of industrial relations, statutory minimum wages, collective wage bargaining and compressed wage differentials that urge firms to raise the productivity of employees by means of skill formation (in either dual or school-based vocational systems).

With regard to employment protection, the Dutch labour market is quite strictly regulated, even if it has undergone significant changes in the last two decades, in the direction of increasing flexibility (it can be placed in an intermediate position between Italy and England). Following Breen (2005), strict regulation notwithstanding, the strong signalling function of the Dutch education system can be expected to offset employers' reluctance to hire, as educational signalling enables employers to determine ex-ante the match between the job-seeker and the job. From this point of view, in the Netherlands there is certainly less of a need to screen new hires via internships and training schemes, as the screening function is absorbed into the education system.

In summary, the Netherlands can be described as a country with: high stratification; high standardization at both secondary and tertiary level; high vocational specificity at both secondary and tertiary level; a binary tertiary education system with an academic track and an equally well-developed vocational track; a relatively large share of tertiary degree holders; predominantly occupational labour markets segmented by qualifications; and employment relationships that are becoming increasingly more flexible, as demonstrated by the wide diffusion of non-standard forms of employment.

3.1.3. Transitions from school to work in England

Stratification

Since 1965, when a tripartite system highly stratified by social class was abolished, education in England has taken place in a comprehensive system until students reach the age of 16. Comprehensive secondary schooling is mainly provided in publicly-funded, non-selective schools, next to which a small number of grammar schools select students on ability. Secondary education is compulsory and is divided into two key stages: key stage 3 (catering to students between the age of 11 and 14) and key stage 4 (catering to students aged 14 to 16). In 2008, the Education and Skills Act raised compulsory schooling until 18, starting from 2015. Within compulsory education, a separate vocational track is lacking, although at key stage 4 pupils can choose between a range of vocational-related qualifications alongside the National Curriculum (Eurypedia 2013). A recent Review of Vocational Education, "The Wolf Report", emphasized the need to incorporate an academic component in vocational programmes at this stage, in order to broaden the curriculum and avoid early specialization (Wolf 2011).

Post-compulsory schooling is referred to as key stage 5 and targets students aged 16 to 19. Students can choose between general upper secondary education, lasting two years, or various types of vocational qualifications. On-going efforts to achieve parity between vocational and academic education resulted in a proliferation of vocational options in Sixth Form colleges and Further Education colleges. Vocational qualifications have limited labour market currency due to the lack of a unified framework and the autonomy granted to the awarding institutions in deciding over the content of the curricula. To facilitate understanding of the vocational qualifications conundrum, the Education Act of 2011 introduced New Academies for students between the age of 16 and 19, called university technical colleges, which focus on technical education oriented to the world of work.

England registers very high enrolment rates in tertiary education, and the proportion of tertiary degree holders in the younger cohorts is one of the highest in the OECD area. Stay-on rates in higher education hover around 80%, well above the OECD average, and twice as much as in Italy, where roughly 40% of the enrolled students manage to obtain a degree (OECD 2003). The high level of qualifications obtained by a large share of the population, coupled with the comparably large share of students who drop out from school at an early age translates (or better, is associated with, as the direction of the causality is dubious) into a polarized occupational structure. Nolan and Slater (2003) refer to this polarization as "hourglass economy": demand is high for both low-paid workers in routine and menial jobs and highly paid employees in occupations requiring tertiary degree holders.

Tertiary education expansion is an indicator of a steady demand for

graduates, but also the consequence of educational reforms which rendered higher education more accessible. Until the early 1990s, a binary structure was in place. After the implementation of the *Further and Higher Education Act* in 1992, polytechnics were granted the same status as universities (though they are nowadays still referred to as post-1992 universities, a sign that status equivalence has only been reached on paper). Both pre- and post-1992 universities are subject to the same funding arrangements and quality assurance mechanisms. However, the higher education sector remains very heterogeneous: only some HE providers are research-oriented and provide opportunities to pursue a doctorate, whereas others are more vocationally-oriented and offer a mix of bachelor courses and shorter, sub-degree programmes (e.g. foundation degrees).

The British higher education system is distinctive for the presence of a clear hierarchy based on the reputation of the institutes and yearly made public in the League Tables. There are five types of universities: ancient universities (the most prestigious ones: Oxford, Cambridge, Aberdeen, Glasgow, St. Andrews, Edinburgh), red brick universities (chartered before WWI), plate glass universities (founded in the 1960s), the Open University, and the new universities (former polytechnics, also referred to as post-1992 universities). Even within the same university, Bachelor's degrees are differentiated, as students can choose between bachelors with honours and ordinary or pass degrees, which correspond to a lower number of credits. The honour degree can be awarded according to a four-point scale, ranging from first class, to second class (divided into upper second and lower second) to third class.

Standardization

At the lower secondary level, curricula at several 'key stages' are developed centrally, following the introduction of the national curriculum in 1988 (Education Reform Act)[5]. The National Curriculum centrally sets statutory core and foundation subjects, and attainment targets for pupils. At the same time, schools are granted a large degree of autonomy in decisions about the organization of instruction and personnel and resource management, and the United Kingdom is one of the OECD countries in which the percentage of decisions taken at the school level is higher (OECD 2012). Almost half of secondary schools are independent academies, and can autonomously decide about curricular and organizational aspects. They are exempt from following the National Curriculum requirements. Schneider (2008) stresses that in the UK the increase in independent schools, most of which choose to specialize in one area of the curriculum, somewhat undermines the comprehensiveness of the education system.

5 At the moment of writing, the National Curriculum is under review. A New Curriculum is planned for September 2014.

At the end of key stage 3, students are assessed with school-based examinations in core subjects, whereas at the end of key stage 4 external assessment leads to General Certificate of Secondary Education (GCSE) qualifications, or an equivalent vocational qualification such as the Diploma[6]. GCSEs can be taken in a large number of subjects, and there are no specific regulations with regard to the minimum number of required examinations. GCSEs are differentiated into grades A to C and grades D to G and instruction is streamed into several bands according to pupils' ability. Given the persistence of within-school tracking for different ability groups, the UK education system is less comprehensive than usually described (Schneider 2008).

Upper secondary education is structured around a wide array of multiple single-subject, outcome-based qualifications accredited by non-governmental awarding bodies, a feature that in Europe is unique to British Education. Schools and colleges can set their own requirements for admission, and they commonly demand a minimum of five GCSE passes at grades A*-C (usually in English, Math, Science and two more subjects) for studying subjects at A-level. There are no requirements for minimum attendance, and schools can autonomously decide about the allocation of course work. Assessment of students is done via external qualifications, of which the General Certificate of Education Advanced level examinations (GCE A-levels) are one example. GCE A levels are single-subject examinations that can be taken by combining both general and vocational subjects (e.g. applied A-levels). Courses usually last two years and are provided by both sixth forms and colleges for further education. Whereas applied A-levels emphasize knowledge in broad vocational areas and can represent a route into higher education, a complex system of vocational qualifications provides work-oriented programmes which, however, are usually very narrow in scope and little understood by employers. In 1986, the National Council for Vocational Qualifications was introduced with the aim of monitoring standards in vocational qualifications on the basis of a National Qualification Framework structured around five levels of skills and competences (National Vocational Qualifications, NVQs). Next to NVQs, General National Vocational Qualifications (GNVQs) at three different levels (Foundation, Intermediate and Advanced) were introduced in 1991 and aimed to bridge vocational and general qualifications. Overall, however, vocational education is perceived as a residual category: NVQs and GNVQs primarily cater to those who are considered not enough talented to pass the A-level General Certificate of Education (Crouch et al. 1999; Wolf 2002).

6 The Wolf Report was overtly critical of the provision of vocational qualifications at key stage 4, on grounds that these certificates are not easily recognized by employers and are of poor quality and narrow scope.

Both academic and vocational qualifications are awarded by state-independent awarding organizations, a practice that is distinctive of the British education system and led to an overwhelming number of awarding bodies. A regulatory body (Ofqual) ensures standard maintenance. In the 1980s, the Thatcher government made the first of a series of attempts to reduce the number of awarding bodies and simplify the jungle of existing qualifications. However, a critical review of the British system of vocational qualifications within post-16 education stresses that, twenty years on, the number of awarding bodies offering 'approved' qualifications rose from 98 in 2002 to 144 in 2009 (Wolf 2011). Compared to other European countries, the central ministry has very limited responsibility for setting up curricula and designing qualifications. Wolf (2011) also observes that the *de facto* designers of almost all non-HE qualifications other than the academic ones are Sector Skill Councils (SSCs), non-statutory networks that articulate the view of employers in a given sector and have a formal role in the accreditation of qualifications and in the development of apprenticeship schemes. In 2005, with the 14-19 Education and Skills White Paper, the government assigned to these networks the responsibility for the design of an employer-led vocational diploma through Diploma Development Partnerships, supposedly increasing employers' engagement in the set-up of vocational qualifications. This decision was met with criticism from education experts (Keep 2005; Ertl and Stasz 2010)[7].

Wolf (2011) stresses that SSCs, unlike trade and professional bodies, are created and funded by the government, a very unusual structure by international standards[8]. A similar remark was made by Keep et al. (2006), who underlined the fact that the UK lacks the institutional mechanisms and the structured partnerships between the state, employers' associations and organized labour that are the cornerstone of skill formation policies in countries like Germany and the Netherlands.

At tertiary level, HE providers are completely autonomous in deciding the structure of the study programmes. As reported by Eurypedia (2013), the Quality Assurance Agency for Higher Education developed a framework to facilitate understanding of higher educational qualifications. This agency is also responsible for ensuring the quality of the study programmes of the various

7 A working group led by Sir Mike Tomlinson had advised the government about the introduction of an overarching Diploma that would incorporate all existing qualifications (A-levels, GCSEs, NVQs, etc.).

8 A critical look at the role of SSCs had also emerged in earlier work from Wolf (2007: 113), who argued that "*the 25 Sector Skills Councils, established in 2001, are successors to the 73 National Training Organizations. The NTOs were created in 1997 and replaced 180 Industry Lead Bodies. And they, in turn, had, during the 1980s, replaced the 27 Industry Training Boards of the 1970s. Every one of these networks was set up by governments dissatisfied with the existing set, all had employers appointed to their boards, and all were, therefore, proclaimed by the government of the day to be 'employer-led'*".

degree-awarding institutes. Comparability of qualifications is undermined by the high number of courses designed by the HE providers. Admission requirements are also decided autonomously at the university level. Three GCE A-levels are the most common threshold adopted, even though stricter requirements are implemented in the more prestigious universities (e.g. Oxbridge and the Russell Group, a consortium of traditional universities).

Vocational specificity

The UK education system is particularly deficient at the intermediate level, where the supply of vocational qualifications is very low compared to countries like Germany or the Netherlands. As observed by Keep (2005: 545), "there is no meaningful definition of skilled employment in the UK labour market". This is largely a result of the dramatically high number of early drop-outs who leave education before the attainment of occupationally-relevant qualifications. As opposed to the Netherlands, school-leavers from upper secondary vocational education earn lower wages than their counterparts from the general tracks (Iannelli and Raffe 2007). These findings run counter to the widely shared expectation that vocational qualifications are particularly suited to enhancing access to skilled jobs, and point to a situation where the vocational option – if decoupled from standardization – remains little understood by employers. Keep and Mayhew (2004) also observe that the recent Curriculum 2000 reform which was intended to increase the attractiveness of A-levels also led to a steady decline in the number of vocational qualifications at upper secondary level.

Keep (2005) emphasises the lack of institutional incentives for coordinated skill formation and remarks on the absence of public debate about the role of employers as providers of learning in British 14-19 policy. Employers, despite complaining about the inadequacy of school leavers' preparation and the existence of severe skill shortages, proved unwilling or unable to provide high-quality training and the British government tried to meet the need for specialized technicians via further higher education expansion in the form of foundation degrees, dismissing intermediate vocational education. Although it is too early to comment on the effect of the introduction of the new 14-19 Diplomas, the evaluation of Ertl and Stasz (2010) pointed to the lack of representativeness of small and medium enterprises in the development of qualifications, possibly undermining their usefulness and acceptance within each sector. The authors also reported employers' lukewarm reactions about a possible involvement in the future with a view to update qualifications and provide work-related learning.

With regard to the content of the curricular offer at tertiary level, Colombo (2011) observes that former polytechnics and pre-1992 universities are becoming more and more alike: former polytechnics are introducing more academic-oriented courses, whereas old universities are broadening their offer

with sandwich courses that consist of three years of school-based learning plus one year of practical training in a firm. Since the 1980s, the British Government has intervened in educational policy with a top-down approach that aimed to introduce vocationally-oriented degrees (i.e. foundation degrees) designed in consultation with social partners. More successful has been the experience with industrial placements as part of regular undergraduate programmes, which are very often "used as a 'test and try' prelude to recruitment" (Purcell et al. 2002: 33). Improving the occupational orientation of HE study programmes is among the Government priorities for the higher education sector, as stated in the Education 2020 strategy, together with a reorganization of the modern apprenticeships.

Employment protection and labour market flexibility

England, and the UK as a whole, is a textbook example of uncoordinated industrial relations, where collective action is weak at best, pay setting is decentralized at the firm level and the lack of inter-employer agreement at the sector level constitutes a disincentive for employers to engage in training, as it would leave them vulnerable to poaching (Acemoglu and Pischke 1998). Thus, skilled recruitment is preferred and employers have considerable leeway to adjust pay as to attract the most talented applicants (Ryan 2001). British firms are far less constrained than their Italian and Dutch counterparts in terms of protection against dismissal, and they can respond to fluctuations of the labour demand with layoffs (numerical flexibility). In England, educational signalling is low, yet the risk of a mismatch is attenuated by the greater ease with which employers can fire unproductive workers (Breen 2005).

An attempt at developing a corporatist structure in the 1960s with the establishment of Industrial Training Boards was later dismissed by the Thatcherian government on grounds that it would unnecessarily interfere with employers' own assessments of training needs (Crouch et al. 1999). Against the backdrop of a general decline of industry-wide collective bargaining, the role of unions was since then kept at a minimum, and union representatives were prevented by the government from taking part in consultations over youth training schemes. In the early 1990s, policies of skill creation have encouraged the emergence of informal business networks, through Training and Enterprise Councils (TECs) which operated according to a market logic and were often in competition with educational providers: thus, the training offer was seen as a market transaction rather than as a formative programme and the main objective of TECs was "to provide training cheaply" (Crouch et al. 1999: 189). TECs have been replaced over the years by the Learning Skills Councils first, and then by the Skills Funding Agency, but their role in the policy of skill creation remains modest.

Overall, linkages between educational institutions and the labour market are very loose, and only rarely qualifications are a prerequisite for employment

in specific occupations (Jenkins and Wolf 2005). Due to the poor articulation between educational tracks and labour market needs, the British transition system follows the 'education logic' (Iannelli and Raffe 2007): secondary school has a predominantly general orientation with little demarcation between its academic and vocational components. On-the-job training occurs in the form of industrial placements and internships. The latter are, however, either uncertified or poorly understood by employers due to the lack of a unitary framework for vocational certifications. Employer collective action in VET arrangements is weak: firms participate on a voluntary basis mostly with the remedial objective of training the underachievers (Crouch et al. 1999).

In summary, England can be described as a country with: low stratification; medium standardization but only at the secondary level; low vocational specificity at both secondary and tertiary level; a differentiated tertiary education system characterized by a recognized hierarchy of HE providers; a relatively large share of tertiary degree holders; an organizational space with both internal labour markets and external recruitment[9]; and very flexible employment relationships, with a low degree of protection against dismissals.

3.1.4. Institutional variation: a comparison of indicators

All in all, the three country descriptions of school-to-work transition systems clearly emphasise differences in the organization of the education system and in patterns of entry into employment and career mobility in the national labour market. The wide range of variation is hardly surprising, as previous research has shown that transition systems rest on deep-seated institutional complementarities (Ryan 2001; Thelen 2004; Busemeyer 2009). Hence, a well-developed occupational labour market like the Dutch one can thrive on the existence of clearly defined occupational titles, which are conferred by a highly standardized and stratified education system. Likewise, comprehensive schooling in England goes hand in hand with a loose coupling between educational qualifications and labour market positions: as employers are not engaged in the co-design of educational curricula, the signalling value of vocational certification is negligible and the bulk of the training takes place on the job[10].

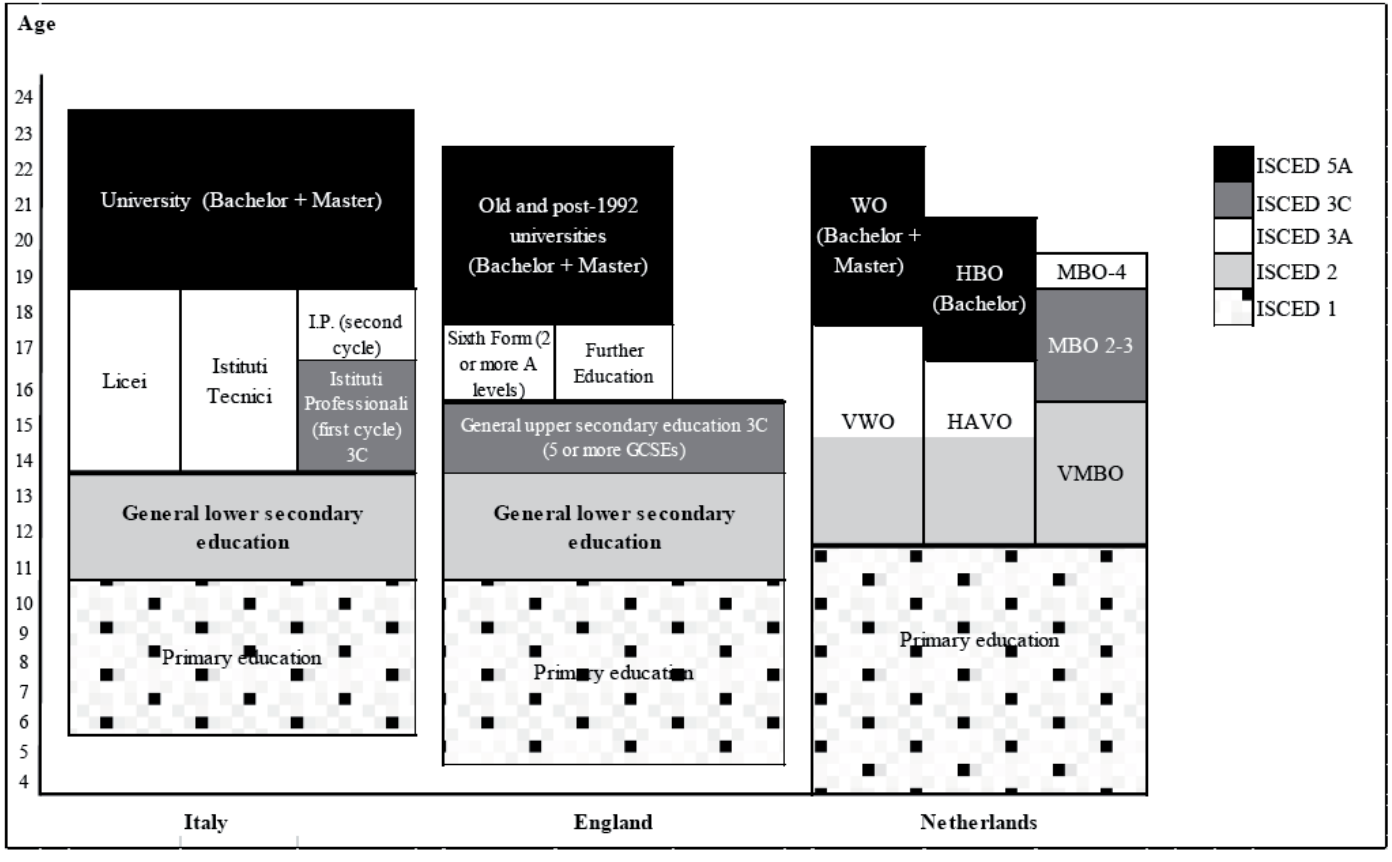
To visually capture the considerable variation in the institutional set-up of national education systems, the articulation of the three levels (primary,

9 Indeed, the classification of England as an internal labour market has been widely debated (Gangl 2001).

10 The importance of institutional complementarities becomes visible in a comment by Rainbird (2010: 131) to the recently introduced National Vocational Qualifications in Britain, which was intended to rationalize the existing jungle of vocational qualifications. The author is overtly skeptical about "a rare example of an employer-based training system without corporatist monitoring. That does…raise questions about the ability of the policy-makers to resolve the collective action problem among employers".

secondary, tertiary) in separate tracks is illustrated in figure 3.1 for each country. Both vertical and horizontal differentiations are shown. For each specific track, the corresponding ISCED 97 level - an international standard classification scheme developed by the OECD - is reported. Black, horizontal bars indicate the age at which the first form of tracking occurs. However, comparison of systems based on the ISCED classification is not immune to criticism. Country experts have signalled the increasing complexity of national education systems, with the addition of certificates and differentiation processes that are at times not easily comparable internationally (Schneider and Kogan 2008). Thus, figure 3.1 is to be interpreted as a simplified representation of institutional variation in the set-up of education systems in Italy, England and the Netherlands.

Figure 3.1. Overview of the structure of the education system in the three countries



Note: adapted from Eurypedia (2013).
Levels of education correspond to the International Standard Classification of Education developed by the OECD in 1997.

The institutional set-up of the three education systems can also be analysed on the basis of a series of indicators developed to facilitate international comparison and reported in table 3.1. The indexes of stratification, input and output standardization and vocational specificity have been developed by Bol and Van de Werfhorst (2012) and refer to the dimensions proposed in the seminal works of Allmendinger (1989), Kerckhoff (1995) and Shavit and Müller (1998) to classify education systems. Bol and Van de Werfhorst (2012) derived summary measures of these institutional aspects from a wide range of data sources (OECD, Eurydice, PISA, TIMMS, UNESCO) and for a large number of countries. Their index of differentiation takes into account the age at which the first tracking occurs, the length of the tracked curriculum (as measured in Brunello and Checchi 2007) and the number of tracks available to students at age 15. Vocational specificity is determined by the percentage of vocational enrolments among the total number of upper secondary education enrolments (from OECD and UNESCO data) and the percentage of students who are trained within the dual system. Finally, various aspects related to standardization have been identified in the literature. Bol and Van de Werfhorst (2012) distinguish between input standardization (the degree of autonomy that schools are granted in decisions about textbooks, curricula content, etc.) and output standardization (the presence of centralized examinations). Horn (2009) refers to centralization and accountability as sub-dimensions of standardization and constructs indicators based on country-level OECD indicators from yearly reports (i.e. Education at a Glance) and the school questionnaire directed to principals from the Programme for International Student Assessment (PISA). Centralization is defined as the strength of central regulation on school decisions, whereas accountability is a system of standardized incentives for schools, in terms of independent monitoring and evaluation of performance.

From the table, it is clear that the three countries display wide variation with regard to all institutional dimensions. In line with the country descriptions outlined above, the Netherlands is coded as highly stratified and vocationally oriented (it scores highest in the indicators of differentiation and vocational specificity), whereas the opposite is true for the UK. Italy occupies an intermediate position. Italy is highly standardized both in terms of input and output, and it is the country where decision-making is most centralized. On the other hand, Italian schools are accountable to a lower extent than in the other two countries, where school performance is regularly inspected.

The indicators listed in table 3.1 are limited to secondary education. Using similar indicators, the analysis can be extended to tertiary education. With regard to the dimension of stratification, the comparative work of Shavit et al. (2007) classified the Netherlands as a binary system, given the co-existence of an academic and a vocational track at ISCED level 5A. Italy is a unified system, in which tertiary education is purely theory-based (the introduction

of higher technical institutes is still too recent to be taken into account in an indicator). The absence of differentiation is further reinforced by the fact that tertiary degrees have legal validity in Italy and in public examinations (e.g. for entry into the public sector) they are given the same weight, regardless of the HE provider that has awarded them. The opposite situation is found in England, and in the UK as a whole, which is classified as binary to reflect the *de facto* hierarchical differentiation between HE providers: vocational subjects are mainly taught at former polytechnics.

Moving to standardization, Oliveira Martins et al. (2007) compared the institutional set-up of tertiary education systems in OECD countries on the basis of a composite indicator, computed using the answers provided by Member States experts to a set of forty-nine questions concerning the autonomy and accountability of higher education institutions. The indicator is divided into three sub-indicators measuring, respectively: input flexibility (e.g. autonomy to select the number and type of students, budget autonomy and autonomy to set wages and determine the staff policy); output flexibility (e.g. autonomy to set course content, organize field-specific exams, rationing of students by national regulations); and accountability (e.g. presence of an independent evaluator, involvement of stakeholders in the evaluation, publicity of quality assessments, rules regarding public and private funding). Arguably, the indicator can be interpreted as an extension of the widely used standardization measure of Allmendinger (1989) to tertiary education systems: both refer to the nationwide standardization of curricula content (the more autonomous the HE providers, the lower the nationwide standardization of the study provision), the uniformity of exit examinations, the allocation of responsibility for budget decisions, staff recruitment, as well as the independence of output assessment. The scores of our three countries of interest are shown in table 3.2: a higher score indicates higher flexibility (lower standardization) in the supply of core tertiary education services. Oliveira Martins et al. (2007) found a wide range of variation across countries in the value taken by the composite score: the average was 6.6, but countries ranged from 3.0 and 4.5 in Greece and Germany to 7.8 in Australia and New Zealand. From the table, one can observe that Italy and the Netherlands have a lower than average score, whereas the United Kingdom is one of the countries with the least standardized supply.

Table 3.1. Summary indicators of the institutional set-up of secondary education systems

Indicator	Italy	United Kingdom	Netherlands	Source
Stratification				
Length of tracked curriculum	0.38	0.50	0.15	Brunello and Checchi (2007: 45)
Age of first selection	14.00	16.00	12.00	OECD (2006: 162)
Number of tracks at age 15	3.00	1.00	4.00	OECD (2006: 162)
Index of differentiation	0.18	- 1.08	0.97	Bol and Van de Werfhorst (2013)
Vocational specificity				
Vocational enrolment	62.79	71.48	69.06	OECD (2006: 281)
Dual system	0.00	0.00	20.00	OECD (2007: 277)
Index of vocational orientation	0.95	0.47	1.26	Bol and Van de Werfhorst (2013)
Standardization				
Input standardization				
Autonomy in choice textbooks	0.00	.	0.00	Bol and Van de Werfhorst (2012)
Autonomy in school supplies	0.46	.	0.25	Bol and Van de Werfhorst (2012)
Autonomy in course content	0.48	.	0.38	Bol and Van de Werfhorst (2012)
Autonomy in course offer	0.72	.	0.08	Bol and Van de Werfhorst (2012)
Index of input standardization	1.48	.	- 0.09	Bol and Van de Werfhorst (2012)
Output standardization				
Centralized exit exams	1.00	1.00	1.00	Bol and Van de Werfhorst (2012)
Centralization of decision-making				
% direct government influence in staffing, budgeting, curricula and assessment practices	0.10	0.39	0.21	Horn (2009: 364) from OECD (2003) PISA school questionnaire
% School-level decisions	46.00	85.00	100.00	Horn (2009: 364) from OECD (2004)
% Central-level decisions	23.00	11.00	0.00	Horn (2009: 364) from OECD (2004)
Accountability				
Accountability index	0.40	0.80	0.60	Horn (2009: 364) from OECD (2007)
Regular inspection	0.00	1.00	1.00	Horn (2009: 364) from OECD (2007)

Table 3.2. Flexibility in the supply of core tertiary education services

	Italy	United Kingdom	Netherlands
Input flexibility	6.2	7.8	6.3
Selection of students	3.7	6.7	1.3
Budget Autonomy	7.0	6.8	7.7
Staff Policy	7.9	10.0	10.0
Output flexibility	6.4	8.2	5.9
Accountability	6.0	6.6	6.3
Evaluation	6.8	7.7	7.5
Funding Rules	5.2	5.5	5.1
Composite Indicator	6.2	7.5	6.2

Source: Oliveira Martins et al. (2007: 66). Values range between 1 and 10, higher scores indicate greater flexibility (lower standardization).

An indicator of vocational specificity for tertiary education is, to my knowledge, still lacking. Leuze (2010) refers to the cognate concept of occupational specificity in a comparison of the German and British higher education systems and argues that countries vary in the extent to which HE curricula are designed to meet the demands of specific occupations. Important dimensions in this regard are the incorporation of practical training and the orientation towards specific knowledge of different types of HE institutions, and of different fields of study. In systems with high occupational specificity, job placement is structured according to higher education credentials, which provide specialized training for specific occupations, resulting in a close match between skills acquired in higher education and skills required on the job. Higher education credentials are less important in countries where occupational specificity is low. Leuze (2010) defines occupational specificity as the proportion of graduates whose first job after graduation is in an occupation that matches their field of study, taking into account the time it took to obtain the job. The criterion used to assign occupational codes to a specific field of study or group of fields of study is the assumed congruence of skills acquired through education with those needed in the job, as done by Wolbers (2003) in an analysis of job mismatches in European countries. Applying a similar logic to the countries under study, data from the ad-hoc module on school-to-work transitions of the European Labour Force Survey indicate that vocational specificity is high in the Netherlands, which registers the lowest percentage of job mismatches (29%) whereas the congruence between study

programmes and occupational destinations is the loosest in Italy (47%)[11]. The difference between the two countries is particularly pronounced in the field of engineering, manufacturing and construction, and health and welfare.

Moving to labour market institutions, table 3.3 lists a series of indicators used in previous comparative research to emphasize country differences in the protection of employment and in the extent to which school leavers are smoothly channelled into the their first job or rather experience a turbulent period during which unemployment and employment in temporary jobs alternate (Scherer 2005). The widely-known indicator of the strictness of employment protection legislation (EPL) is developed by the OECD and takes into account several constraints pending on employers in decisions about hiring and firing. Its three main components reflect protection of regular employment, regulations of temporary employment and collective dismissals. In the UK, a typical example of uncoordinated market economy (Hall and Soskice 2001), wage bargaining is decentralized, labour unions are weak, and forms of collective action to guarantee job stability are nearly absent. As a result, employers are almost free to hire and fire at will. As expected, the UK is the country in which employers are less constrained, although both in Italy and the Netherlands there has been a significant erosion of the protection granted to employees during the last decade. Measures adopted by the Dutch and the Italian governments to reduce the EPL strictness were mainly directed at forms of temporary employment, whereas the protection of regular employment remained virtually unchanged, thus increasing the labour market segmentation. In the Netherlands, flexibilization of employment relations went hand in hand with working time redistribution and measures aimed to maintain income security (such as active labour market policies, retraining schemes and generous unemployment benefits) and to protect outsiders during the job search in case of unemployment. On the other hand, Italian youth have been exposed to more uncertainties, as labour market policies are mainly passive and labour market outsiders receive limited income support.

Youth unemployment rates and the registered length of the school-to-work transition are also informative of the extent to which the labour market is open to the entry of youth. Transitions are particularly worrisome in Italy, where the unemployment rate for the age bracket 15-24 is four times as high as it is in the Netherlands. Faster transitions of Dutch school leavers are most likely facilitated by the collinear linkages between schools and firms (Hannan et al. 1996), leading to more stable early careers.

11 The REFLEX data that will be introduced in the following section provide more detailed information about occupational specificity and the perceived congruence between study programmes and the first occupation entered after graduation, based on graduates' own assessment. Taken together, measures such as self-ratings of the content of the study programmes, of the practical emphasis of teaching, and of the extent to which work after graduation was related to the content of the studies can be interpreted as subjective indicators of the vocational specificity of the higher education system.

The involvement of social partners in the organization of vocational training – in the definition of curricular content and in the quality assessment of the study provision – guarantees that study programmes are relevant to the skill demands of employers. In the Netherlands, a combination of high vocational specificity and high standardization caters to a well-developed occupational labour market, where specific and highly standardized qualifications provide students with occupationally-relevant skills that are recognized by employers. Given the presence of labour market institutions that secure income stability through generous unemployment benefits, Dutch outsiders are less urged to (re-)enter employment and can perform a well-focused job search with lower risks of downward mobility (Gangl 2003). In Italy and the UK, vocational specificity is low and employers assume that specific skills will be acquired on the job, by taking part in training activities within internal labour markets. In the Italian labour market, dual employment relationships biased against outsiders (e.g. labour market entrants) hinder entry into employment also for tertiary graduates, whose unemployment rates do not significantly differ from the unemployment risks faced by low-qualified school-leavers (Gangl et al. 2003). This is even more striking considering the relatively low share of tertiary graduates which should not lead to a devaluation of the labour market currency of higher education in the Italian context.

Table 3.3. School-to-work transitions and labour market institutions

Indicators	Italy	United Kingdom	Netherlands	Source
School-work linkages	De-coupled with strong signals	No direct linkage	Collinear	Hannan et al. (1996)
% tertiary graduates, 25-34 years old	21.0	46.0	41.0	OECD (2012)
% graduates to the population at the typical age of graduation	35.0	38.7	42.8	OECD (2010)
Predominant type of labour market	Internal	Internal	Occupational	Gangl (2003)
Expected length of school-to-work transition (months) – ISCED 3 and 4	10.7	3.3	3.3	EU-LFS (2009)
Expected length of school-to-work transition (months) – ISCED 5 and 6	9.8	3.0	3.0	EU-LFS (2009)
Youth unemployment rate, 15-24	29.1	20.0	7.7	OECD (2011)
Youth unemployment ratio, 15-24	8.0	12.4	5.3	Eurostat (2013)
Employment protection (overall)	1.89	0.75	1.95	OECD 2008
	3.57	0.60	2.53	OECD 1995
Employment protection (temp.)	2.00	0.38	1.19	OECD 2008
	5.38	0.25	2.38	OECD 1995
Production regime	Semi-coordinated	Liberal	Coordinated	Hall and Soskice (2001)

3.2. Comparative evidence from employer and graduate surveys

As discussed in the previous sections, comparative stratification researchers have convincingly shown that country-specific institutional arrangements define structural opportunities for school-leavers and have important implications for the way individuals are allocated to labour market positions (length of the transition, type of occupation entered) and for the rewards and experiences associated to such allocation (e.g. income and occupational prestige relative to individuals with different qualification levels). These patterns are corroborated by the evidence collected from a series of graduate and employer surveys recently carried out in a number of countries. These large-scale data collections focus on graduate employability, a special concern of policy-makers especially after the implementation of the Bologna process, which aimed to harmonize tertiary education systems across European countries.

In the following, I will summarize results from two international graduate surveys and a few employer studies that I consider insightful for my project. They inform us about the perspectives and experiences of both school-leavers (e.g. method of search for the first job, total length of the transition from university into employment, congruence between the qualification obtained and the occupation entered, perceived importance of a number of characteristics while being recruited for the first job, existence of linkages between study programmes and the labour market) and employers (e.g. importance attached to several aspects of the educational pedigree while hiring prospective employees, collaborations in place with higher education institutions and colleges, perceptions about the work readiness of new hires). In these projects, however, the effort to relate the findings to the broader institutional framework in which school-to-work transitions take place is fairly modest. Also, these works consider, by design, the graduate labour market as neatly separated from the market for lower educated school-leavers, an assumption that presumably holds true to different degrees in the various countries.

I will propose to relate the three mechanisms introduced in chapter 2 to a range of indicators taken from these comparative studies. Specifically, I will discuss the distinctive characteristics of school-to-work transitions in the three countries in light of the institutional environment in which employers and school leavers operate. Institutions of the education system and of the labour market shape the links between the acquisition and certification of knowledge and skills during formal learning, and their recognition by employers during the hiring process. Therefore, I will formulate institutional conditions under which a specific mechanism is more likely to be triggered and derive hypotheses about the educational features that employers should find more relevant in a given institutional context.

3.2.1. Internationally comparable graduate surveys

The CHEERS project (Careers after Higher Education: a European Research Study) was the first large-scale research to compare the transitions from education to the labour market and the early careers of a representative sample of graduates from higher education institutions in nine European countries (Austria, the Czech Republic, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden and the UK) and Japan. At the end of the 1990s, researchers from the participating countries jointly carried out a representative, internationally comparable survey of higher education graduates, which targeted more than 36000 higher education leavers a few years after graduation.

A key concern of the CHEERS project was the dynamic of the transition process from higher education to employment in the various countries, with a focus on graduates' experiences during the early career, i.e. the first four years after graduation. The CHEERS project revealed marked country differences in graduates' opinions about the skills and competences developed during higher education, and the extent to which study programmes matched the requirements of the job entered after graduation (Schomburg and Teichler 2006; Teichler 2007). A selection of indicators is presented in table 3.4 to compare the performance of Italy, the UK (separate data on England were not available) and the Netherlands. These data are also assessed against the average score of the European countries participating in the project.

From the table, one can observe that Dutch graduates more often stressed that their higher education institutions fostered direct acquisition of work experience (e.g. through internships and work placement schemes), whereas in Italy the study provision was mainly directed at independent learning and teaching activities had very little practical emphasis. In Italy, only 8% of the surveyed graduates rated the practical emphasis of the study programme as good or very good, compared to more than five times as many graduates in the other two countries. When mapping graduates' early labour market experiences, the length of the transition to the first job was dramatically long in Italy. Whereas in the Netherlands and the UK roughly one in four graduates found a job within three months after graduation, a third of Italian graduates were still without a job six months after graduation, a percentage that is twice as high as the European average.

Table 3.4. Cross-national variation in the school-to-work transitions of graduates

Indicators of interest	Italy	United Kingdom	Netherlands	Europe
Experience of studies:				
Rating practical emphasis of teaching as good or very good	8%	46%	41%	26%
Participated in work placements or internships	7%	25%	68%	33%
Rating work placements and internships as good or very good	4%	25%	52%	23%
Rating content of major as good or very good	36%	71%	60%	51%
Job search:				
Found job within 3 months after graduation	48%	73%	72%	68%
Found first job in more than 6 months after graduation	34%	12%	13%	17%
Average duration of job search for first employment (months)	8,9	4,4	4,7	5,8
Sought for first job through personal contacts (parents, relatives, friends, etc.)	54%	27%	37%	32%
Sought for first job through careers/placement office of HE institution	10%	37%	12%	17%
Sought for first job through work contacts established during the course of the studies	11%	17%	31%	21%
Matching between HE and employment:				
Work experience not at all related to content of study programme	43%	56%	14%	26%
Studies were useful in preparing for work tasks	46%	49%	68%	61%
Field of study does not matter much for current area of work	6%	22%	10%	9%
HE studies not at all related to current area of work	8%	18%	3%	7%
Level of education completely appropriate to employment	19%	40%	30%	36%

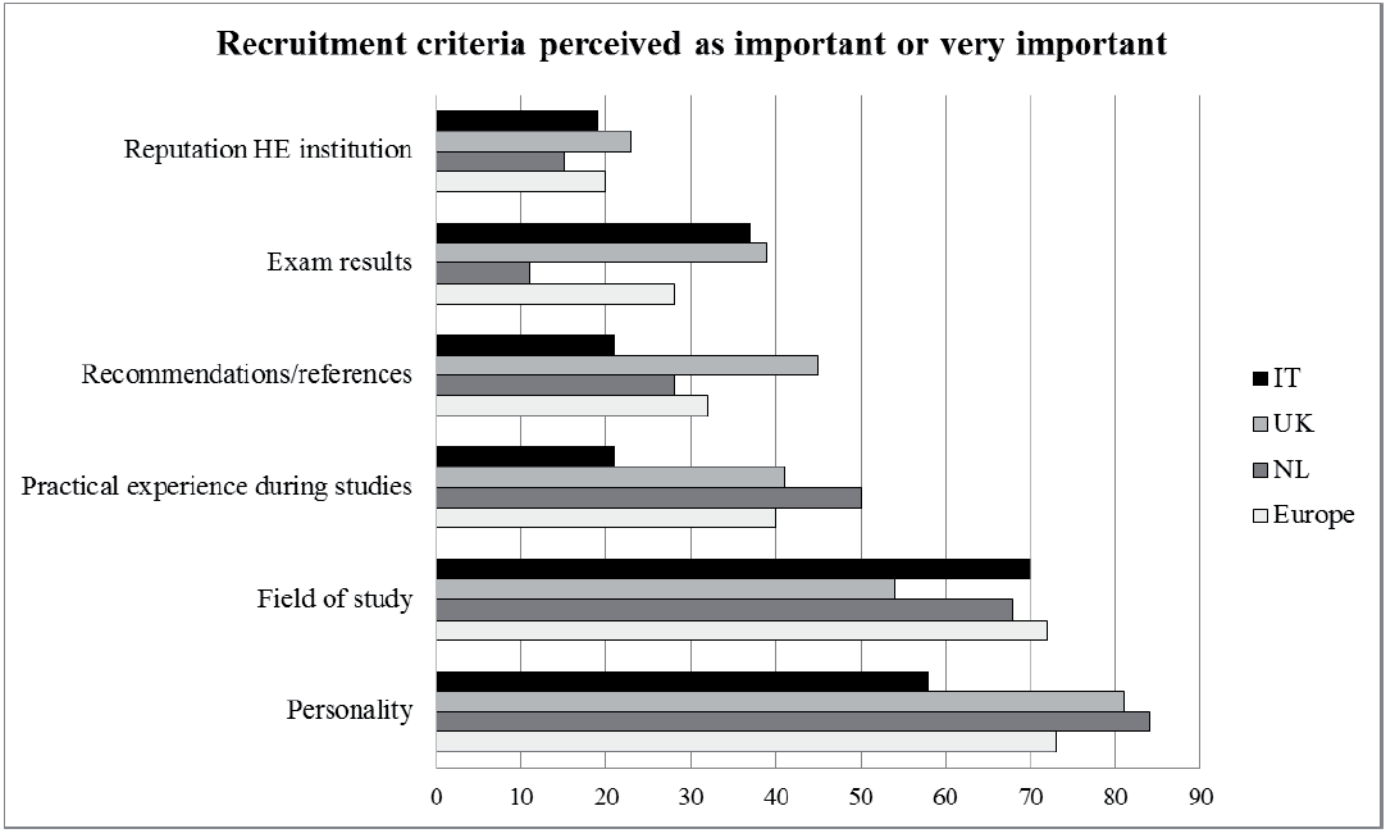
Source: CHEERS survey data, selected indicators from Schomburg and Teichler (2006).

When seeking for a job, Italians turned predominantly to their personal contacts, whereas in the UK the placement office of the higher education institution was more important. In the Netherlands, contacts established while working during the course of the studies played a significant role in the job search of one third of graduates.

A direct concern of the CHEERS project was the relationship between students' competences upon graduation and their usefulness on the job. This relationship was particularly loose in the United Kingdom: 22% of graduates reported that field of study did not matter much for their current work tasks, and 18% considered their higher education studies to be completely unrelated to their area of work (at the same time, however, half of the surveyed graduates declared to make use of skills and knowledge acquired in the course of study to a high or very high extent). Dutch graduates were the most positive about the congruence between the education trajectory and the subsequent occupational allocation: only 14% of respondents thought that the content of the study programme was not at all related to their work experience (compared to 56% of graduates in the UK), and more than two thirds of graduates considered the studies useful in preparing them for the current work tasks.

Interestingly, the CHEERS project also asked graduates to estimate, in retrospective, the importance of a series of selection criteria for the employers who hired them for the first job after graduation. Some important differences stand out which are presented in figure 3.2. Specifically, Dutch and Italian graduates are more likely to perceive field of study as an important hiring screen than their British counterparts. For the latter, reputational capital (Brown and Scase 1997; Hesketh 2000) seems to play a large role, especially as far as references and recommendations are concerned. The reputation of the higher education institution is also perceived as more relevant than in the other two countries. The weight of exam results in the recruitment process is perceived as negligible in the Netherlands, a country with a more vocationally-oriented education system, where it is plausible that education is considered as a guarantee of skills, independent of the grades obtained in school. The share of Dutch graduates who rated the practical experience acquired during the course of studies as important or very important was twice as high as in Italy.

Figure 3.2. Importance of employers' recruitment criteria, as perceived by graduates

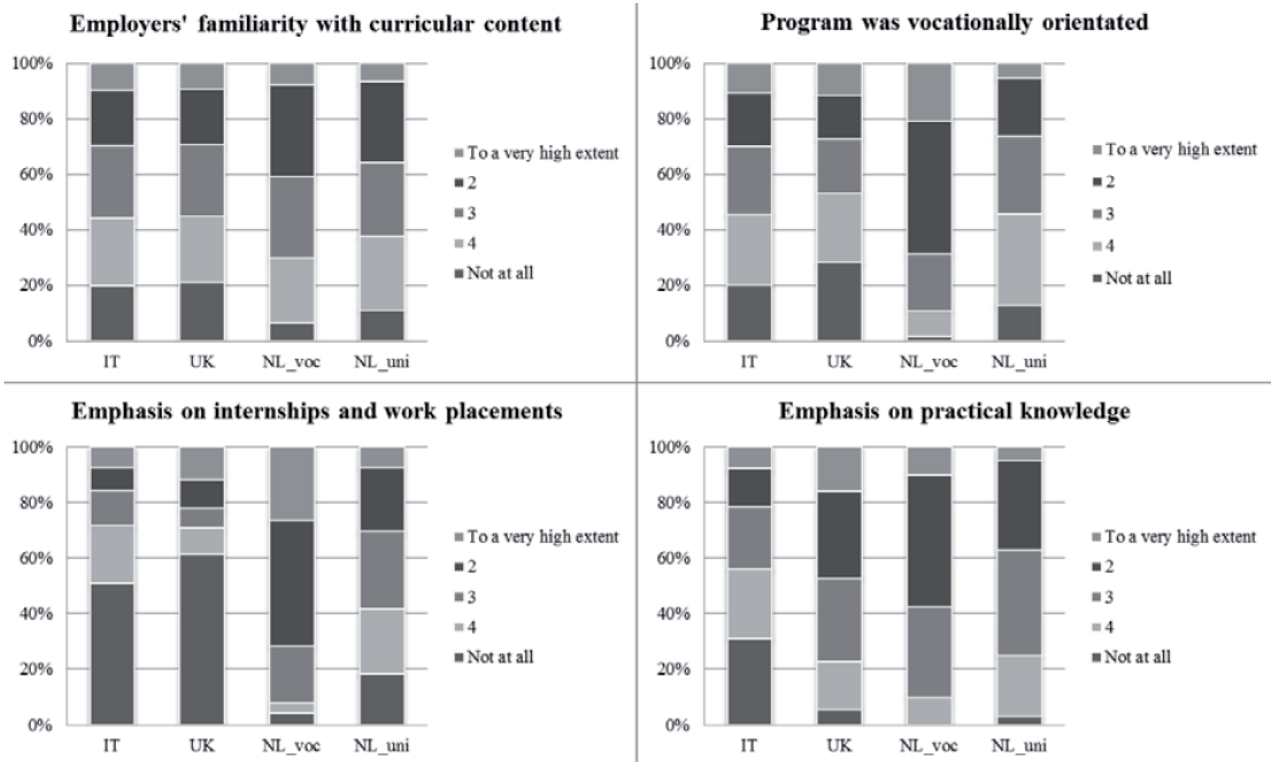


Source: CHEERS survey data, adapted from Allen and Van der Velden (2007:64).
Question: *How important, in your eyes, were the following aspects for your employer in recruiting you for your first employment after graduation?*

These country differences in the transitions of graduates from higher education to the early career were reflected in the subsequent REFLEX project, a large international study on "The Flexible Professional in the Knowledge Society", which included a survey of about 70000 higher education graduates five years after completion of the first degree (Allen and Van der Velden 2011). The REFLEX project was carried out in 16 countries: Austria, Belgium-Flanders, the Czech Republic, Estonia, Finland, France, Germany, Italy, Japan, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the UK. The survey was targeted to graduates who had completed their degree in the academic year 1999/2000, and consisted of questions about the satisfaction of graduates with their study programmes, opinions about the skills and specific knowledge acquired during the course of the studies, and whether the study programme was attuned to the labour market.

In particular, four indicators capture graduates' perceptions of the occupational specificity of study programmes, i.e. how well higher education curricula prepared respondents for specific occupations. Figure 3.3 shows graduates' opinions about the extent to which: 1) employers were familiar with the content of the study programme; 2) the study programme was vocationally oriented; 3) the study programme placed emphasis on internships and work placements; 4) the study programme emphasized practical knowledge. For Dutch graduates, the bar graph distinguishes between graduates from academic-oriented universities (NL_uni) and graduates from universities of applied sciences (NL_voc).

Figure 3.3. Subjective indicators of occupational specificity of HE study programmes



Source: REFLEX survey data, own calculations.

For all four indicators, the Netherlands stands out as the country with more occupationally-specific study programmes, although the result is mainly driven by the opinions of graduates from the *Hogescholen*. In comparison with the other two countries, study programmes in the Netherlands are particularly distinctive for the presence of internships and work placements and for their vocational orientation. Italian graduates are the least inclined to consider their study programmes as occupationally-specific, and the emphasis placed on practical knowledge is perceived as much more limited than in the UK or the Netherlands (in line with the CHEERS results introduced above), a confirmation that Italian universities predominantly focus on theoretical knowledge.

3.2.2. Evidence from employers

In order to discuss into detail the aspects that were addressed in the graduate questionnaire, the CHEERS project was supplemented by 154 interviews in 9 of the participating countries with managers of large companies and small and medium enterprises in the Electronics, ICT, commercial services and public sectors (De Weert 2007). These data represent an important source of information, as graduate perceptions can be compared with employers' views about the extent to which higher education is providing skills that are in tune with labour market demands. Some interesting country differences deserve to be mentioned. Employers in continental Europe placed a stronger emphasis on the role of degrees as guarantees of acquired skills and specific knowledge, whereas in Britain degrees were more often interpreted as signals of the ability to absorb and retain knowledge in the future. In most countries employers stressed that degrees were interpreted as an "indication of further training capabilities and development potentials" (De Weert 2007: 232). However, a fundamental difference across countries emerged: employers in continental Europe placed emphasis on the specific content of fields of study, while British employers were rather unresponsive to fields of study and valued in-firm training instead.

One aspect that is worth reporting is the positive opinion expressed by employers with regard to apprenticeships and degree-related work placements, especially in countries where these arrangements are not a mandatory part of the study programme. Not unexpectedly, it was especially in those countries (like Italy) where vocational higher education was either absent or poorly established that employers more often complained about the lack of practical orientation of university programmes. In countries with a well-developed binary structure at the tertiary level, like the Netherlands, employers confirmed their positive attitude towards vocationally-oriented higher education. More generally, the majority of employers manifested in the interviews the wish for closer collaborations between higher education institutions and firms, through partnerships and joint curricular development. As a way to facilitate

cooperation between HE institutions and firms, they looked favourably at various types of degree-related work placements, such as apprenticeships or sandwich courses.

The CHEERS project also targeted 31 employers from the ICT sector and asked them to indicate the factors that were more relevant when screening applicants for jobs. Representatives from some ICT companies declared that they did not place particular emphasis on the type of higher education, and were open to recruit graduates from different types of HE providers for the same job. In countries with a unified university system, employers did not differentiate between HE providers: in Italy, for instance, graduates from polytechnic institutes were considered on par with university graduates. Overall, a commonly mentioned characteristic of degrees in computer science was that it proved "an ability to look at complex issues in the way that was required" (De Weert 2007: 231).

The REFLEX project also included a qualitative study of employers' perspectives about the employability of graduates. Arthur et al. (2007: 8) discuss the main findings from a series of interviews and focus groups carried out between April and July 2005 with representatives from HE institutions and employer organizations in Norway, UK, France, Germany and the Netherlands. The authors predicted that employers would report "differences in their recruitment approaches – for example, in the relative importance attached to factors such as the university attended, the subject studied, and the personal qualities and background of the individual – and in how they use and train their new recruits". According to their findings, a clear distinction can be made between the attitudes of British employers towards graduates, and their counterparts in continental Europe, especially in Norway, Germany and the Netherlands. In the UK, higher education is considered as generalist, and employers tend to ignore fields of study as screening criteria when recruiting graduates. Possession of the right credential is less crucial, as graduates are expected to acquire specific knowledge on the job. Education should provide a "base of some breadth as a foundation for subsequent professional education and training often provided by employers" (Arthur et al. 2007: 7). Final degree classification was also considered important, as it signals graduates' potential for a successful career. In the UK, graduate recruitment is targeted at particular institutions, preferably those at the top of a hierarchy based on the reputation of the *alma mater*. On the contrary, the Dutch university sector was perceived by employers as fairly egalitarian.

Field of study was considered important by Dutch employers, although not the main factor. Amongst the graduates' qualities most commonly mentioned in the interviews, employers in the Netherlands stressed the ability to learn, plan, focus, and accept feedback, and the capability to apply subject knowledge in various professional contexts. Dutch employers particularly appreciated the development of practical skills during undergraduate education in the HBO

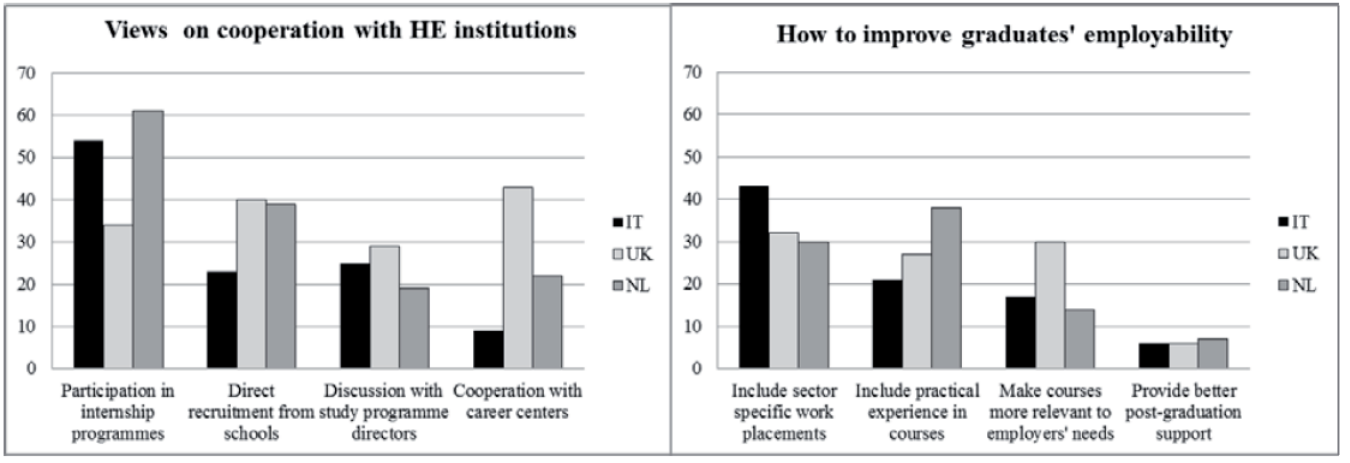
sector, in stark contrast with the situation in the UK, where vocational higher education was described by one of the interviewees as a "misunderstood mess" (Arthur et al. 2007: 27).

Employers' interpretation of the Bachelor's degree varied considerably across countries. In the UK, a bachelor's degree had traditionally been the entry qualification for the graduate labour market. In countries characterized by a binary HE system (like Germany and the Netherlands), employers tended to consider the university Bachelor's as an unfinished degree which should be completed at the Master's level. Employers showed a widespread resistance to accept the Bachelor's degree from traditional universities as a direct route to the labour market. However, in the same countries, the Bachelor's degree is considered the normal exit point of the vocational tertiary track.

Overall, both the CHEERS and the REFLEX projects present a similar picture. Employers' perspectives about the employability of graduates and about the importance attached during the recruitment process to various facets of education (e.g. field of study, type of HE provider) vary systematically across countries. From the interviews, it is evident that British employers tend to consider degrees as an indication of graduates' ability to learn, whereas in the Netherlands employers more often stress the role of education in teaching practical skills and subject-specific knowledge.

Employers' insights into how to improve the employability of HE graduates were also gathered in the Flash Eurobarometer #204 titled "*Employers' perceptions of graduate employability*". Data were based on a telephone survey directed to chief human resource officers or chief executive officers of 7036 companies with more than 50 employees, carried out between August and September 2010 in the 27 EU Member States as well as Norway, Iceland, Croatia and Turkey. The survey inquired about employers' satisfaction with the skills of graduates, factors influencing graduate recruitment, the amount and type of cooperation between employers and educational institutions and employers' views on how graduates could be made more employable. Comparing our three countries of interest, Italian employers more often emphasized the need to include sector-specific work placements in tertiary programmes, whereas the importance of including practical experience in HE programmes was mainly stressed by Dutch employers. Twice as many employers in Britain as in Italy and the Netherlands complained about a poor fit between university courses and employer needs (left panel of figure 3.4). Both in Italy and in the Netherlands, participation in internships and work placements was indicated by more than half of the employers as one of the best ways for firms to cooperate with HE institutions. In the UK, employers were more positive towards a stronger cooperation with career centres (right panel of figure 3.4).

Figure 3.4. Employers' perceptions of the employability of graduates



Source: Flash Eurobarometer #204 (2010), survey data.
Left panel question: *What do you think is the best way to cooperate with higher education institutions on recruitment? (% of first and second mention added together).*
Right panel question: *Which actions should higher education institutions take in order to improve the employability of their graduates? Choose one of the following choices.*

These data closely mirror the fact that graduates in the UK most often relied on the placement service of their HE institution when seeking for the first job, whereas in the Netherlands contacts established while working during the course of the studies (e.g. while taking part in an internship) played a more prominent role. It is interesting to note that Italian recruiters, despite more frequently acknowledging the importance of cooperating with HE institutions in other questions of the survey, were the least involved in terms of both joint curricular development and participation in graduate recruitment programmes.

To conclude this overview of employer studies, I refer to a few studies from the United Kingdom which also largely dealt with the value employers attached to several aspects of graduates' education (in particular degree classification, reputation of the HE institution, field of study) during the recruitment process. Harvey et al. (1997), on the basis of more than 130 in-depth interviews with employers of graduates in the United Kingdom, report that a degree is expected to provide a broad education rather than certified training for a particular job or specific technical skills and detailed understanding of a subject area. Respondents in this study showed little interest in a more vocationally-oriented undergraduate education, and their opinions closely resemble the views expressed by British employers in the CHEERS and REFLEX qualitative studies. Whereas a degree was once regarded as a passport into employment, with the expansion of higher education and the increasing number of graduates, a degree has become a necessary but not sufficient criterion for getting a job. In this study, many of the interviewed employers said to take for granted the intellectual ability of graduates. In times of mass higher education this is not enough and a large number of organizations use degree classification, type of university or course, or even A-level score to identify the top graduates. Grades and students' performance are highly regarded by the employers in this study: some recruiters seek for graduates with a first or upper-second class degree, while others look at A-level grades in addition to degree classification. Work placements were regularly mentioned as a valuable component of undergraduate education, as a way to improve the links between higher education and workplace experience and bridge skills gaps. According to employers, placements enhance the development of skills that are relevant to the workplace and increase students' awareness of current work practices.

Hesketh (2000), after surveying 372 British organizations, reports that employers ascribe great importance to problem-solving, teamwork and self-management skills, while the demand for graduates' vocational abilities and technical skills is much more limited. Employers' preferences are strikingly similar across a number of sectors of the economy, ranging from manufacturing to commercial services, to legal and finance, to ICT. Among the key issues addressed by this survey, employers' views on the role of higher education in

delivering key skills are discussed, as well as employers' preferences in targeting particular universities during graduate recruitment. Employers targeted their graduate recruitment efforts to a multi-layered hierarchy of universities: those with which employers have close ties were favoured, although universities with strict entry requirements in terms of A-level points scores were still preferred, followed by other old universities, Oxbridge and other pre-1992 universities. Former polytechnics were still the least popular choice among employers. Employers appreciated the ability of graduates to learn new material, whereas in terms of applied skills and work readiness graduates did not significantly differ from non-graduates. This notwithstanding, only one in ten employers expressed dissatisfaction with the vocational skills of highly educated employees, and in most cases the lack of practical knowledge and technical preparation was easily accommodated within graduate in-house training programmes. Technical skills were ranked as the least important requirement in any sector, a sign that vocational and 'hard' skills are not a strict requirement for graduate jobs. This can very plausibly be interpreted as a sign that British employers do not expect graduates to have already learned job-relevant skills during tertiary education, but are willing to accommodate this skill gap by means of induction programmes and training courses[12].

3.2.3. Shortcomings and ways forward

Overall, findings from these projects provide us with important information about the role of education during the hiring process (as perceived by graduates or self-reported by employers) in a number of countries. From this perspective, the employer data are certainly very valuable in presenting employers' views about graduate employability, and to complement the (far more extensive) data gathered from surveys of degree holders. However, the approach of these analyses is mainly exploratory, and the broader institutional framework in which employers operate remains underexplored. The same can be said with regard to the growing - but still limited - number of employer surveys circulating from various industrial think tanks, or commissioned by national governments or European institutions. While commenting about these research efforts, Hesketh (2000: 247) observed critically that "methods of data analysis have not gone far beyond the perfunctory". This is unfortunate, as the systematic regularities discussed so far seem to suggest that, in each country, employers are influenced by the particular institutional configuration of the education system when evaluating the educational pedigree of prospective hires.

12 Similarly, a content analysis of job advertisements by Jackson, Goldthorpe, and Mills (2005) found that British employers very often do not indicate specific requirements in terms of type of degree or field of study in their vacancies, and a few employer studies reported that qualifications were not ranked among the top selection criteria, nor distinction was made by hiring managers between qualification levels and types (Wolf and Jenkins 2002).

Results from CHEERS and REFLEX are strikingly similar, in spite of the fact that they targeted different cohorts of graduates. Country differences already present in the CHEERS study persisted, regardless of the harmonization of higher education systems that the 1999 Bologna Declaration initiated in the meanwhile, through the implementation of a common Bachelor-Master structure in many European countries. Graduates' opinions about the study programmes followed during higher education are reflected in employers' interpretations of the value of a degree. Specifically, when graduates complained about the limited vocational orientation of the curricula, as in the UK, employers were also more inclined than in other countries to interpret tertiary degrees as signals of graduates' ability to learn new material rather than as certificates of acquired technical knowledge. In the UK, the steep reputational hierarchy among HE providers was perceived as an important hiring criterion by employers and graduates alike. In the Netherlands, both graduates and employers recognized the vocational orientation of study programmes, their practical emphasis and occupational specificity. Dutch employers were more inclined to interpret education as a guarantee of skills, and relied to a greater extent on field of study during the hiring process as it certifies specific knowledge of a subject area, something that was less likely to occur in Italy or the UK.

In addition, the wealth of indicators produced by these projects has not been interpreted in relation to the mechanisms introduced in the previous chapter about the role of education in employers' hiring behaviour. As argued earlier, several theories have been proposed in both the economics and sociological literatures in order to explain why education matters to employers at point of hire. To reiterate, three mechanisms could explain why education pays off on the labour market: education can certify acquired skills and specific knowledge accumulated during the course of the studies (*productivity-enhancing mechanism*); it can signal learning potential and the ability to participate in training activities (*trainability mechanism*); or it can be a means to reproduce cleavages in the social structure by erecting barriers for social inclusion or exclusion, through the establishment of entry requirements or school-firm networks (*closure mechanism*). One can easily build a parallel between, on the one hand, the three mechanisms and, on the other hand, employers' views about the employability of graduates and graduates' own experiences during the transition from higher education to first employment.

If, as human capital theory suggests, employers consider education a guarantee of acquired skills and technical knowledge that increases employee productivity, study programmes should be aligned with the early work experience of graduates and employers should be well aware of the specific content of curricula. However, if education is a signal of trainability, the practical emphasis of study programmes should not matter much because employers expect graduates to be good learners and acquire specific knowledge

through extensive on-the-job training. Finally, if the closure mechanism holds, employers should limit their recruitment efforts to specific HE institutions (for instance, those that are part of a common network or those with high reputation). Activities that lead to the establishment of bilateral collaborations, such as the participation in internships or work placements, should be keenly supported by employers.

Therefore, table 3.5 lists a series of indicators taken from the graduate surveys and employer studies presented above that are congruent with each of the three matching mechanisms. The exercise proposed in the table is useful in that it shows that each of the three matching mechanisms logically corresponds to the role of specific educational features during the hiring process. Therefore, in the assessment of the education effect, I propose that various types of educational features (e.g. grades *and* fields of study *and* study duration) should be considered simultaneously, advancing on previous studies that, by focusing on selected characteristics (e.g. grades *or* fields of study *or* study duration) are exposed to the risk of misspecifying the education effect (see also Van der Velden and Wolbers 2007; Smyth and McCoy 2011). This type of approach was already suggested in previous studies. Rosenbaum and Kariya (1991: 92) identified as a significant gap in the literature the fact that while several theories did explain why education would be used by employers as a signal, none of them specified which particular attributes of education would matter to employers. In a similar vein, Spilerman and Lunde (1991) showed that the payoff of education was allocated among different dimensions of educational attainment, suggesting that in the assessment of the full effect of education various types of educational features should be considered. At the same time, they also acknowledged that in the absence of a theory that specifies which components of educational attainment should matter and under what circumstances, their findings that employers relied on certain educational features but not others were to be interpreted as "little more than empirical regularities" (p. 718). In order to give meaning to such empirical regularities, I propose to interpret the payoff of education at entry into employment, and the various educational features through which the education effect manifests itself, as conditional upon the institutional context in which employers and job seekers operate.

Table 3.5. Relationship between mechanisms and indicators of graduate employability taken from both graduate and employer studies

Source of indicators	Mechanisms for the payoff of education on the labour market		
	Productivity-enhancement	Trainability-improvement	Social Closure
Graduate surveys	Practical emphasis of the study programme; Employers' familiarity with curricular content; Field of study is perceived as important; Content of major is rated favourably; Work experience very much related to content of studies.	Little practical emphasis of the study programme; Need to take part in extensive on the job training; Exam results are perceived as important.	Emphasis on internships and work placements; Reputation of HE institutions is perceived as important; First job sought through career office of HE institution.
Employer surveys and qualitative studies	Degrees are a guarantee of technical skills and specific knowledge; Employers are well-aware of the specific content of study programmes; Education is considered as specialist.	Degrees signal the ability to retain and absorb knowledge and to learn new material; Employers stress the importance of in-firm further training; Education is considered as generalist.	Employers consider education as reputational capital; Employers look favourably at work placements and cooperation with HE institutions.

3.3. Mechanisms in context: the working hypotheses of the project

In this section, I will formulate hypotheses that specify the circumstances under which certain facets of job applicants' education should matter to employers in Italy, England and the Netherlands. I will argue that the importance attached by employers to particular educational features (and the neglect of others) can be interpreted as evidence that a specific mechanism is more plausible in one context than in another. Compared to existing studies, I believe that the hypotheses here presented constitute an advancement in comparative research on school-to-work transitions in three respects. First, they unpack the education effect into a set of facets (e.g. grades, fields of study, internship), thus better qualifying the value of education in the eyes of employers. Educational features are tested simultaneously, avoiding the risk of misspecifying the education effect. Second, these educational features are discussed in relation to the three mechanisms of productivity-enhancement, trainability-improvement and social closure, with the aim of identifying the aspects of the educational pedigree that employers should consider more relevant if a given mechanism underlies their hiring decisions. Third, employers' interpretation of the various educational features, and in turn the mechanism that explains why they reward education, are contextualized in specific institutional settings. Institutions render certain educational features more easily interpretable and provide conditional support to the matching mechanisms.

3.3.1. Education as productivity-enhancing

Drawing on human capital theory, employers reward education for the skills it imparts to students, which are expected to increase on-the-job productivity (*productivity-enhancement mechanism*). Among the educational features reported in job applicants' résumés, two aspects are particularly stressed by human capital theory: years of schooling and fields of study. As longer time in school leads to gains in productivity, years of schooling - which vary from one level of education to the other - should be particularly important in the eyes of employers. Relatedly, registering a delay in school completion should not imply any penalty, as it is associated with skill gains of some sort. Fields of study that are relevant for the recruiting occupation should be rewarded, as students learn subject-specific knowledge and occupationally-oriented skills while in school.

Job-related skills and subject-specific knowledge are especially taught in education systems with a well-developed vocational component. Employers' involvement in the co-design and assessment of curricular profiles and/or in the provision of training guarantees that occupationally-oriented skills are part of the study provision. Therefore, education should be more frequently perceived by employers as productivity-enhancing in those contexts where

close linkages between the education system and the labour market are well articulated and institutionalized. Moreover, the association between skills acquired in education and skills demanded at the workplace is stronger in occupational labour markets, where nationwide standardization of educational qualifications makes them truly portable across firms and easily recognizable by employers. These prerequisites are found in the Dutch system, but neither in the Italian nor in the English ones. Only in the Netherlands the well-established linkages between schools and firms and the standardization of vocational certificates assure employers that the link between education and skills is maintained. On this basis, we expect that Dutch employers will be the most likely to interpret education as productivity-enhancing. Building on these considerations, I hypothesize the following:

Hypothesis 1a: *Employers in the Netherlands are more likely than employers in England and Italy to differentiate between job applicants on the basis of their level of educational attainment. Higher levels of educational attainment should receive higher ratings as they imply more years of schooling.*

Hypothesis 1b: Employers in the Netherlands are less likely than employers in England and Italy to penalize applicants with a study delay, as longer time in school is associated with skill enhancement.

Hypothesis 1c: Employers in the Netherlands are more likely than employers in England and Italy to differentiate between job applicants on the basis of fields of study. Fields of study that match the recruiting occupation should be preferred.

Hypothesis 1d: Employers in the Netherlands are more likely than employers in England and Italy to rely on skills acquired within school-employers networks. Educational qualifications provided by schools that are part of employers' networks should receive higher ratings.

3.3.2. Education as a signal of trainability

According to the mechanism of improved trainability, employers interpret education as a signal of job applicants' learning potential, implying that the applicant would be easily trainable once in the firm. Trainability should be more of a concern for employers in countries where the education system equips students with general skills. In these contexts, school-leavers do not possess well-defined occupational identities. The vocational specificity of the study provision is fairly low and can be compensated on the job, with firm-specific training. This situation is consistent with the path of career progression typical of internal labour markets, where career advancement occurs from within the organization. Weak linkages between the education system and the labour market will urge employers to hire job applicants who are more easily trainable and can learn specific skills at little cost once in the firm (Thurow 1975).

The improved-trainability mechanism should operate less plausibly in the Dutch occupational labour market, and provide a more reasonable account of the education payoff in Italy or England, where internal labour markets are more common and the education system is far from occupationally-oriented. As a result of the weak linkage between the education system and the labour market, one can expect Italian and English employers to interpret educational qualifications as a signal of general trainability, rather than of specific knowledge. In the absence of a training system geared to the needs of the labour market, the vocational specificity of schools is rather low, the occupational focus of school curricula is not clearly defined, and school leavers do not possess ready-to-use skills at entry into employment. Hence, employers will look for those candidates who require less training costs to perform the job optimally. Compared to employers in the Netherlands, I expect employers in Italy and England to more strongly rely on grades and study duration with the aim of estimating applicants' learning potential.

Hypothesis 2a: Employers in Italy and England are more likely than employers in the Netherlands to prefer job applicants with high grades over applicants with a fair track record.

Hypothesis 2b: Employers in Italy and England are more likely than employers in the Netherlands to penalize job applicants who register a delay in their studies[13].

Italian employers should have an even greater incentive to weed out the underachievers: whereas in England unproductive workers can easily be replaced, this option is disallowed in Italy, where protection against dismissal is fairly high. Thus, Italian employers would seek after relatively more signals of applicants' trainability in order to deal with the greater information uncertainty. On the contrary, employers in England can dismiss unproductive workers due to the deregulated labour market in which they operate. British employers have also more discretion in adjusting pay and trying to attract the more talented school-leavers through a better targeted external recruitment (Ryan 2001). Greater uncertainty with regard to the quality of the applicant pool in the Italian case can also be related to the low selectivity of the education system, which – though stratified – allows students from all the tracks to continue into higher education. Hence, the population of degree holders will be more heterogeneous in Italy than in the Netherlands

13 Hypothesis 2b is identical to hypothesis 1b: both refer to the relationship between study delays and employers' ratings. They are here specified as separate hypotheses because they are driven by different mechanisms. Hypothesis 1b is related to human capital theory, and the expectation that, if time spent in school provides students with job-relevant skills, study delays should not be penalized, as they imply longer time in school and, thus, the possibility to acquire more skills. On the other hand, hypothesis 2b is related to the expected-trainability mechanism: study delays, in this case, should be penalized, as they signal lower motivation and lower willingness to learn.

(where cohorts of tertiary students are affected by early selection due to tracking) and in England (where access to higher education is more selective and lemons are either filtered out before entering university or channelled to educational providers with a lower reputation). Therefore, I expect that:

Hypothesis 2c: The effects of grades and study duration on employers' ratings are the strongest in Italy.

Another educational feature that employers should take into consideration especially when the education system does not provide occupationally-relevant skills is in-firm training in the form of internships or work placements. In systems with little vocational specificity, such as the Italian and the English ones, educational qualifications are not particularly informative of job applicants' skill endowments. If formal education does not supply occupation-specific skills, or if it fails to clearly signal them to employers due to the lack of clear links between school curricula and well-defined occupational profiles, internships may represent a useful screening device for employers. Internships taken at the employers' premises should compensate for the less transparent information about skills obtained from education. Internships should also represent important signals due to the concerns of Italian and English employers about the expected trainability of prospective hires. Italy and England have both predominantly internal labour markets, where skill acquisition almost exclusively takes place within the firm, through on-the-job training (Müller and Gangl, 2003; Scherer 2005). Arguably, applicants who have already spent some time at the firm should be more easily trainable due to the higher familiarity with both the workplace and the job tasks. Thus, I hypothesize the following:

Hypothesis 2d: Employers in Italy and England are more likely than employers in the Netherlands to prefer job applicants that have taken an internship at their premises.

3.3.3. Education as a means to reproduce social closure

With regard to social closure theories, closure may occur by degrees or by networks. Closure by degrees is typically the allocation rule of occupational labour markets, characterized by a close correspondence between educational qualifications and occupational destinations (Marsden 1999). Social closure is maintained to the extent that occupational entry is based on the possession of a recognized qualification, i.e. a credential. In the view of Weeden (2002), these legal restrictions on entry are the result of negotiations between representatives of employers and employees (e.g. employer associations, trade associations, trade unions) and should be stronger for qualifications that match the occupational destination. Closure by degrees is expected especially in the Netherlands, where social partners play a relevant role in the arrangement

of skill formation, and the regulation of employment relationships is more coordinated.

Hypothesis. 3a: Employers in the Netherlands will be more likely than employers in Italy and England to consider education as a means for social closure and attach importance to completed degrees. Uncredentialed learning will be penalized the most in the Netherlands.

Hypothesis. 3b: The effect of credentials on employers' ratings will be stronger for matched fields of study.

Another perspective on social closure is the one presented by Collins (1979), widely known as *credentialism*. His takes on closure by degrees focuses on the share of tertiary degree holders in a given country. If a high proportion of a cohort possesses a tertiary qualification, employers may inflate the labour market value of credentials (Collins 1979), so that degrees would represent a minimum hiring floor. This is likely to occur both in the Netherlands and in England, but not in Italy, where the proportion of tertiary graduates is still very low.

Hypothesis 3c: The effect of credentials on employers' ratings is stronger for tertiary than for non-tertiary degrees in England and the Netherlands, but not in Italy.

Thus, hypotheses 3a and 3b refer to the use of degrees as a closure strategy that aims to maintain the advantage of occupational incumbents through the erection of barriers to occupational entry that protect insiders from competition. Hypothesis 3c refers to structural reasons as to why completed higher education should matter to employers, which have more to do with hiring entry requirements in the context of educational expansion. Thus, hypothesis 3a and 3b interpret social closure in a Weberian sense, as done in the work of Weeden (2002), whereas hypothesis 3c is more congruent with the interpretation of credentialism by Collins (1979).

A second type of closure operates by networks. Closure by networks is facilitated by the presence of school-firm linkages, which ensure that qualifications are trusted by employers (Miller and Rosenbaum 1996; Rosenbaum 2001). In occupational labour markets like the Dutch one, employers are actively involved in the co-design and provision of training and formal requirements for occupational entry are set. Furthermore, standardization guarantees that skills are portable within the occupational labour market: even employers that are not directly connected to a given school but are linked to another school within the same educational level should acknowledge the productivity-enhancing effect of education. According to hypothesis 1d, educational qualifications should receive higher ratings if provided by schools that are part of employers' network. However, school-firm linkages could matter both for the information they provide about job

applicants' skills (in line with the *productivity-enhancement mechanism*) or because they are a means for excluding applicants that were not part of the network (*closure by degree mechanisms*). In order to distinguish between the two interpretations, we test whether the importance of degrees varies when a network is present. A human capital explanation would imply that where networks are present degrees are less important, as employers would obtain information about the skills that are taught at school from within the network, regardless of whether the education is credentialed or not. On the contrary, if degrees are more important when networks are present, there would be grounds to believe that employers use networks as a closure strategy to set up barriers to occupational access.

Hypothesis 3d: In the Netherlands, the effect of credentials on employers' ratings is lower if credentials are provided by schools that are part of employers' networks.

Hypothesis 3e: In the Netherlands, the effect of credentials on employers' ratings is stronger if credentials are provided by schools that are part of employers' network.

Closure by networks may also occur via internships and job placements. If applicants that have been trained at the employers' premises are preferred, this could also be an indication of closure practices, as equally qualified applicants who have not taken part in an internship would be at a disadvantage. In order to distinguish between a closure and a signalling interpretation of the role of internships (see hypothesis 2d), I argue that if internships are merely a means to reproduce social closure, employers should respond to internships taken at their premises regardless of the fact that applicants may have learned job-relevant skills during the in-firm training. One way to test for this possibility is to analyse the interaction effect between internships and fields of study. Internships from a non-matched field of study should matter to employers who consider education as a screening device, as the less relevant field of study does not represent a clear signal and applicants may have proven their trainability during the course of the internship. On the other hand, employers that consider internships as a preferential route into employment would rather fall under a closure by networks explanation (*closure by particularistic networks*). Whereas internships taken at the employers' premises constitute a direct linkage between the employer and a specific school, the nationwide school-employer linkages discussed above refer to less particularistic networks. In the latter, employers are not necessarily connected with the same school that the applicant has attended but are part of a network with schools at the same level of education. Educational qualifications send clear signals to these employers due to the standardization of the study provision across education providers. Therefore, whereas internships represent ports of entry into the firm (as a screening device, or as a preferential route into employment), nationwide school-employer networks point to occupational labour markets in which qualifications are standardized and portable across firms.

Only the latter should matter in the Dutch context.

Hypothesis 3f: The effect of internships taken at the employers' premises on employers' ratings is more important in Italy and England than in the Netherlands.

Hypothesis 3g: In Italy and England, the effect of internships taken at the employers' premises on employers' ratings is stronger for unmatched fields of study[14].

The working hypotheses and their operationalization are summarized in table 3.6. It is important to stress that the mechanisms discussed in this book offer distinct, but not mutually exclusive explanations to the question why education matters to employers during the hiring process. While I argue that a specific mechanism is more plausible when certain institutional arrangements are present, this does not rule out the possibility that different mechanisms may rest on similar premises, or be at work in the same context[15].

To conclude, the case studies discussed in this chapter depict, for each country, a specific system of school-to-work transition that rests on a complex set of interrelated institutions, which are as enduring and resilient as they are complementary and long-established. These institutions characterize the interface between the education system and the youth labour market, and structure in important ways the occupational opportunities of school-leavers from a very early stage in their careers.

14 Also in this case, one can observe that hypothesis 3f and hypothesis 2d are identical, although the mechanism underlying the expected relationship varies. In hypothesis 3f, internships refer to closure by networks, while in hypothesis 2d to a screening device. The test for interaction effects between internships and fields of study (hypothesis 3g) is used to distinguish between the two possible interpretations.

15 By way of example, both the productivity-enhancing mechanism and the mechanism of social closure based on credentials may be more applicable in the Dutch context than in the Italian one. With regard to the former (productivity-enhancing), employers know they can rely on educational qualifications for the skill content they imply, given the vocational specificity of the Dutch education system and the collinear linkages existing between schools and firms. With regard to the latter (social closure), the involvement of social partners in tripartite bodies for the development and assessment of school curricula make qualifications an important badge for labour market entry in the Netherlands.

Table 3.6. Summary of hypotheses

	Mechanisms for the school-to-work transition		
	Productivity enhancement	Trainability improvement	Social closure, by degrees or networks
Hypotheses	NL>IT,UK (Hp. 1a, 1b, 1c, 1d, 3d)	IT> UK>NL (Hp. 2c) IT, UK>NL (Hp. 2a, 2b, 2d, 3g)	*By degrees (Weeden):* NL>UK, IT (Hp. 3a, 3b) *By degrees (Collins):* NL, UK >IT (Hp. 3c) *By school-firm networks:* NL> UK, IT (Hp. 1d, 3e) *By particularistic networks: UK, IT>NL (Hp. 3f, 3g)*
Corresponding educational features	Level of education (Hp. 1a), less penalized study delays (Hp. 1b), matched field of study (Hp. 1c)	Grades (Hp. 2a), more penalized study delays (Hp. 2b), in-firm internship (Hp. 2d)	Credentialed learning (Hp. 3a, 3b, 3c), school-firm linkages (Hp. 3e), in-firm internships (Hp. 3f)