

Varieties of Capitalism and Investments in Human Capital

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Abstract

This paper explores the relationship between national institutional archetypes and investments in training and development. A recent trend within the literature on comparative capitalism has been to explore the nature and extent of heterogeneity within the coordinated market economies (CMEs) of Europe. Based on a review of the existing comparative literature on training and development, and comparative firm level survey evidence of differences in training and development practices, we both support and critique existing country clusters (Whitley, 1999; La Porta et al, 1999; Amable, 2003) and argue for a more nuanced and flexible categorization.

Keywords: capitalist systems, corporate governance systems, employment practices, training

JEL Classifications: G30, P10, J24, O15

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Abstract

This paper explores the relationship between national institutional archetypes and investments in training and development. A recent trend within the literature on comparative capitalism has been to explore the nature and extent of heterogeneity within the coordinated market economies (CMEs) of Europe. Based on a review of the existing comparative literature on training and development, and comparative firm level survey evidence of differences in training and development practices, we both support and critique existing country clusters (Whitley, 1999; La Porta et al, 1999; Amable, 2003) and argue for a more nuanced and flexible categorization.

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VARIETIES OF CAPITALISM AND INVESTMENTS IN HUMAN CAPITAL

This paper explores the relationship between national institutional archetypes and investments in training and development. A recent trend within the literature on comparative capitalism has been to explore the nature and extent of heterogeneity within the coordinated market economies (CMEs) of Europe. Based on a review of the existing comparative literature on training and development, we critique existing multi-archetype models proposed by Whitley (1999), La Porta et al (1999) and Amable (2003). Whilst we follow the basis of their categorization, we argue that we need a more nuanced and flexible approach to reflect at least the reality of training and development practice. We go on to explore the relevance of the country categorization based on comparative firm level survey evidence of differences in training and development practices.

More specifically, the paper is organized as follows. In the next section we review the predictions of the VOC literature on labor market flexibility and staff training. The section accepts the archetypal categories of LMEs and CMEs and the attempts to understand the variation within CMEs (table 1). The paper then proceeds by reviewing the data sources, performing a first, descriptive, data analysis. The descriptive analysis is then supplemented by a cluster analysis that tests the proposed typologies at the country level. Having found that the categories stand up, we then use our data to introduce standard differentiating

variables: size, sector and firm characteristics. Doing so confirms that once these factors are introduced into the models the picture becomes considerably more complex and a more nuanced analysis is necessary. We conclude that the empirical evidence does confirm the validity of the broad literature on comparative capitalism, especially as understood by the European analysts, but there remains a great deal of diversity within Mediterranean capitalism. The latter may reflect the extent of institutional decoupling within peripheral countries in that region, and a requirement for a looser and more flexible approach to understanding the similarities and differences between national archetypes.

Existing Country Categorizations

Within the emerging literature on comparative capitalism, a common distinction has been drawn between liberal market economies (LMEs) and coordinated market economies (CMEs), the latter including Scandinavian and Rhineland Europe, and Japan (Lincoln and Kalleberg 1990; Dore 2000; Hall and Soskice 2001). More recently, interest has shifted to multi-archetypal models, most notably those of Whitley (1999), Amable (2003) and La Porta et al (1999). Whitley (1999) focuses primarily on differences between northern and certain types of southern European economy (in addition to his excursus on certain Far Eastern economies). In contrast, Amable (2003) and La Porta et al (1999) *inter alia*, also refer to Scandinavian distinctiveness. Where La Porta et al (1999) and Amable et al (2003) differ is that the former hold that a single institutional feature imposes a certain unity on rules and practices on others: this is legal origin, and how it molds private property rights. La Porta et al. (1999) argue

that, in practice, distinct national legal origin and property rights represent points on a continuum, between common and civil law ideal types. In the former, there is a strong emphasis on shareholder value, with wherever possible, training and development costs being the responsibility of the individual employee, with any gaps in human capabilities being plugged by a lightly regulated external labor market. Scandinavia is depicted as something of a ‘mixed’ or diluted civil law category (ibid.). In contrast, Amable’s (2003) country categorizations are discrete, and derived from cluster analysis: systems are not so much hybrid, as representing combinations of different features. The latter encompasses differences in product markets (competitive pressures and strategies), labor markets (flexibility, employment protection and skill bases), financial systems (relative shareholder primacy, and pressures for dynamism and returns), social protection, and education and training. The latter encompasses four systemic and firm specific issues. These are: the degree of flexibility in workplace skills; the relative general or vocational skills basis; the propensity of employers to invest in skills; and the issue of employment protection (Amable 2003: 108).

Most CMEs do indeed have relatively strong industry and employer linked vocational training systems compared to LMEs (Supiot 2001: 29). However, Sweden and Finland both have relatively weak systems likely to make for rather different sets of complementarities in firm practices than would normally be associated with the CME model (Amable 2003). Initially, this would add some credence to La Porta et al’s categorization of Scandinavia as a “hybrid” category. However, when one turns to job security, the situation is a more complex one.

Within some types of CME, whether of the Scandinavian or continental European type, security of tenure is weaker than in others. This reflects trade-offs that involve the state playing differing roles in training and development, ranging from the traditional high employment protection type CMEs (e.g. Germany) to those, such as Denmark (Scandinavian) and the (continental European) Netherlands, following the “flexicurity” model, where employment protection is weaker (Houwing et al 2011). In the flexicurity economies, however, the latter is offset by a stronger emphasis on lifelong learning, aimed at equipping employees for “good” work throughout their working lives, even if not for the same employer. Such a systematic investment in people on an ongoing basis is very far removed from the LME/ common law archetype (see Supiot 2001). Moreover, unions are stronger in Scandinavia than the mainland continental European “purer” civil law societies, contrary to what is suggested by La Porta et al (Botero et al. 2004). Does this make Amable’s model more valid than that of La Porta et al? Unfortunately, his analysis of employment security and training systems reveals much diversity within both the continental European and Scandinavian categories he ultimately derives, but also some commonalities between individual Scandinavian and continental European countries. In short, if one wishes to explore the relationship between institutional features and country categories, there are limits to the existing approaches highlighted above.

While the existing literature is largely founded on stylized ideal types, broad macro-economic data, and/or case study based evidence of firm practices, this

paper aims to draw distinctions on the basis of large scale comparative firm level data collected over a series of time-points. It thus adds to the relatively limited number of studies looking at effects of national training regimes at firm level using cross-national surveys. It also provides the first evidence of developments over time¹.

Comparative Capitalisms and Training Systems

Given these limitations, it could be argued that an alternative or modified typology of archetypes to explain national differences in training systems may be useful. In the following section, we review the specific likely characteristics of firm based training and development within liberal markets, and then explore some limitations to the current broad categories of continental European capitalism.

LMEs – Training and Development in a Climate of Low Employment Protection

Education and training in LMEs are complementary to highly fluid labor markets (Hall and Soskice 2001: 30). Vocational training is generally weak, and offered by formal educational institutions and centered on generic skills, as firms are reluctant to invest in apprenticeships that would strengthen applied industry specific skills (ibid.; Amable 2003: 161; c.f. Thelen 2004). This reluctance is due

¹ Buyens and Wouters (2005) provide a study of the Belgian system based on firm-level survey data, Papealexandris and Chalikias (2002) study Greece, and Kjellberg et al. (1998) look at Sweden. Hansson (2007) provides an excellent cross national study comparing specific organizational performance outcomes with training, but devotes rather less attention to the specific effects of national training systems and associated corporate governance regimes. Klarsfeld and Mabey (2004) approach the issue of national variations in management development from what is largely a cultural perspective, although some attention is devoted to institutional factors (see also Mabey and Ramirez 2005). Tregaskis et al. (2004) explore variations in practice between MNCs and their indigenous counterparts in a range of different national contexts. Drost et al. (2002) provide a more descriptive approach to national variations, focusing on cultural and sectoral differences.

to the fact that it is relatively easy for competitors in the sector to free-ride in this area by poaching staff that others have trained. In addition, for individual job-seekers, career success is dependent on being able readily to change jobs, and hence those individuals are likely to pursue skills that are generic, and that can be used in many organizational settings (ibid.: 30).

In practice, in LMEs such as the United Kingdom, employers have been reluctant to provide training to more apprentices than their immediate needs (Supiot 2001: 30). More advanced state supported education has tended to focus on the provision of generic academic and general administrative skills. Given the lack of suitable apprenticeships that impart real vocational skills, even vocational courses in Further Education Colleges have tended to become more academic. As a result, compared to the rest of Europe, proportionately few British workers hold vocational qualifications (Mason and Van Ark 1994: 57). Ireland can be considered to have retained many of the core aspects of the LME model in this regard, despite the infusion of aspects of the European social model and elements of a corporatist regime elsewhere, especially in relation to tripartite trade-offs between unions, employers and the state on issues such as reward systems and social support. However, recent changes in the economic fortunes of Ireland have threatened the stability of the model (Dundon and Collings 2011).

Wright and Dwyer (2006) underscore the dualistic nature of work and employment in the USA – the “exemplar” LME – between low wage/ low skilled work based around Fordist methods of organization and control commonly

encountered in large areas of the service sector, and better rewarded, higher skilled work found in radically innovative areas of economic activity. A good pool of general skills imparts advantage to radical product innovation: For example, in the USA, the software industry can draw on large numbers of university level educated job seekers who, due to a highly flexible labor market, are likely to have knowledge across a particular industry through regular job switching (Estevez-Abe et al. 2001: 149). In contrast, many firms continue to rely on the standardized mass production of goods and mass provision of services, which do not require a highly trained workforce at all. Nonetheless, even in such occupations, a basic degree of dexterity and role knowledge will be required, which will necessitate some induction training. Hence, low security of tenure and high job turnover rates may impel firms to greater spending on training and development than their reliance on low cost low commitment production might suggest (Estevez-Abe et al.: 148; Harcourt and Wood 2007). In other words, it could be argued that high job turnover makes for lots of short bouts of training. Furthermore, given low trust relations between firms, individual organizations are less likely to pool resources, resulting in higher research and development bills – which again may skew internal training needs. In this study, we only have evidence on two liberal markets (UK and Ireland), and base our analysis on the generally deployed LME archetype. However, there may be as many differences between LMEs as exist between CMEs (Konzelmann et al. 2010), and further analysis of diversity within this category based on firm level survey evidence would represent a fertile ground for future enquiry.

CMEs – High Job Security Economies

In CMEs firms depend on high industry specific skills or firm specific skills – and are heavily dependent on training systems capable of providing these skills (Thelen 2004). In many CMEs, including Germany, Sweden and Austria, employees have enjoyed high levels of job security, providing them with an incentive to develop their human capital on company and industry specific lines (Hall and Soskice 2001). From an employers' standpoint, this means that investments in people are less likely to be reaped by competitors. The combination of a strong national vocational training system and high job security is particularly conducive to cumulative investments in skills on both a formal and informal basis (Whitley 1999: 62). A selection process during state education orientates pupils along different tracks from an early age, a functional differentiation for occupational labor markets. A well-developed welfare state supports individuals in particular occupations when there is a downturn: this provides a solid foundation, on which companies can build further organization-specific skills (Amable 2003: 161).

High job security means that there are fewer pressures for employees to job-hop or constantly to monitor the external labor market. This may preclude the diffusion of knowledge across an industry but, in countries such as Germany, this problem is compensated for by strong inter-company relations based on systemically embedded trust (Zagelmeyer 2011). Complex arrangements involving inter-firm sharing of research and development may be difficult to

sustain in the absence of formal contracts: Again, in Germany, this problem is resolved through the active role of industry associations in promoting common standards and practices, and in dispute resolution (Hall and Soskice 2001).

Weaknesses in training systems in LMEs will open up opportunities for external educational providers for in-company programs, who will be able to reap economies of scale within particular industries. The greater incidence of individual contracts within LMEs means that the use of internal training is more likely to be informed by individual appraisals. Given that lower security means that individuals have fewer incentives to invest in organization specific skills within LMEs (Marsden 1999: 220-221; Thelen 2004), firms have to make training more attractive to employees: this means that individuals may be more likely to be consulted regarding the provision of training. However, the weaker position of unions means that the latter are very much less likely to be involved than in CMEs, where they constitute a pillar of the system.

Alternative Typologies

Examples of higher job security CMEs include Germany, Switzerland, Austria, and Norway. However, whilst Sweden and Finland are generally held to be archetypical CMEs, they differ from CMEs such as Germany and Austria in that they have weak vocational training systems. This means that even if they are similar to CMEs in other respects, firms could exhibit LME-like behavior when it comes to firm related training (Amable 2003: 161-2). France and Italy share many features of CMEs – most notably regarding stock market capitalization

and employment protection – but are in a somewhat more ambiguous position; Hancke (2001: 307), for example, argues that France has become increasingly integrated into Anglo-Saxon model capital markets. La Porta et al (1999) suggest that both are close to the civil law ideal type, whilst Amable (2003) would locate Italy (but not France) as an example of Mediterranean capitalism.

From all of these perspectives, it is evident that CMEs do not constitute a completely coherent unit when it comes to dominant approaches to training and development at firm level. In addition to the archetypical high job security/industry specific skills vocational model associated with countries such as Germany (a model that is held to be the norm in CMEs), two alternative further categories of CME emerge from the key strands of the training and development literature. They are the weaker employment security/good continuous training flexicurity economies, like the Netherlands and Denmark, and those CMEs with relatively weak ab-initio vocational training systems (indeed, who exhibit LME-like features in this regard even if, in other respects, they are firmly in the CME camp). Finally, although there are fewer studies and less information available, it has been argued that the economies of the “Mediterranean capitalist countries”, with businesses being mostly smaller and family-owned, but with a leavening of influential international companies (Amable 2003) seem to be of a distinct nature. We explore these options in the following paragraphs.

CMEs II – High Employment Security (Flexicurity) economies

An alternative form of collaborative model to the high job security one is the “flexicurity” model, typically encountered in prosperous smaller CMEs, such as Denmark, the Netherlands, and, to an extent, Norway (Hansson 2007, Auer and Chatani 2011). In such systems, formal legal job protection is weaker. However, this is compensated for by a greater concentration of resources in generous social security, bridging any interim periods of joblessness (Bredgaard et al. 2005), accompanied by state supported continuous training programs, aimed at ensuring that individual job seekers – and those in employment – have the skills necessary to meet the changing needs of firms (Euractive 2005).

Within flexicurity economies, high levels of foreign competition necessitate a skilled workforce, in order to remain competitive whilst retaining relatively high wage levels (Amable 2003; van Lieshout and Wilthagen 2004; Houwing et al 2011). In such contexts, vocational training is provided in a cooperative manner at industry and company level (Amable 2003: 161). This is matched by high levels of state expenditure on labor market training programs aimed at supporting individuals throughout their working lives (OECD 2004). For example, in the Netherlands, whilst vocational qualifications are normally gained in full-time schooling, vocational schools have a very high rate of attendance among post-16 year olds; the resultant qualifications are highly regarded by Dutch employers (Mason and Van Ark 1994: 56). The system has led to a strong emphasis on constant retraining (Amable 2003: 109). At the same time, centralization and coordination encourage the clear definition and transferability of specific skills within individual industries.

Approaches to training at the workplace itself may not be all that much different from many other CMEs (Jorgensen 2004: 463). Amable (2003: 162) argues that the role of employers in vocational training is institutionalized in flexicurity economies just as it is in high job protection CMEs. In all these economies employers can build on strong vocational training systems, allowing for focused and cost effective workplace based continuous training to fill any gaps in needed organization-specific skills (Amable 2003: 162-163).

Existing flexicurity systems remain, like other CMEs, dependent on formal compromises between capital and labor and unwritten rules of conduct (Bredgaard et al. 2005). Research has indicated that employees in flexicurity economies *perceive* their jobs as secure, even if, formally speaking, they are not (Bredgaard et al. 2005; van Lieshout and Wilthagen 2004). This could reflect the fact that employers may be encouraged to temper their greater capacity to dismiss workers (compared to other types of CME) in return for greater levels of trust and cooperation at the workplace whilst, owing to the countervailing power of unions, employees are willing to take the risks of sharing their firm specific knowledge given their greater confidence in finding, if necessary, “good” work elsewhere. Hence, it could be argued that overall levels of mutual commitment between employers and employees are likely to be higher than LMEs, even if somewhat less than more traditional-type CMEs (Harcourt and Wood 2007).

CMEs III – Weak Vocational Training Systems

Amable (2003: 162) argues that two CMEs – Sweden and Finland – have much in common in the area of training and development with the LME model. Previous research indicates that, whilst firms in these countries do place strong emphasis on continuing training, this is offset by less importance being attached to firm-provided or sponsored vocational training. In Sweden, there is a weak conventional apprenticeship system² (Amable 2003: 163), whilst in Finland the system is based around temporary employment and voluntarism (Keuda 2007). Reforms to the Finnish vocational training system in the 1980s shifted vocational training towards a more didactic model, “ending the networking between fields of industry or work life, administration and teachers” (Heikkinen 1997: 216-217). Such reforms have “deliberately weakened” the basis of vocational education in its entirety, and the relations between training institutions and firms. In Sweden, whilst vocational training was traditionally separate from general academic/ theoretical training, in recent years there has been a move towards a more integrated system (Gibbons-Wood and Lange 2000: 28). The base of skills covered in the Swedish case is considerably more general than the industry-specific skills associated with Germany (Korpi and Mertens 2004: 94). Critics have charged that, as a result, the Swedish system has failed to equip workers with the core skills required by firms; “employers feel let down by the state education system” (Gibbons-Wood and Lange 2000: 28).

In these countries, weak and voluntaristic vocational training systems may encourage firms to free-ride on the efforts of others, acting as a disincentive for workplace based training (c.f. Hall and Soskice 2001: 25), as is the case with

² There is a “modern apprentice system” that now aims to deal with some of the associated problems, effectively infusing aspects of the German model (Gibbons-Wood and Lange (2000: 29)).

LMEs. On-the-job training will be likely to be shorter than vocational training (Amable 2003: 161-162). However, compensating for this weak vocational training, it is likely that both employers and employees will share a strong interest in ensuring that at least some on the job training takes place, both to meet organizational needs (of employers) and to ensure marketable skills (in the case of employees) (Amable 2003: 161-162). Unlike LMEs, there are features that preclude opportunistic behaviour by firms and individuals. Such opportunistic behavior would include low investment in existing staff in the hope of finding cheaper and better skilled labor via the external labor market and/or deliberately poaching staff from competitors who invest in training. Meanwhile, workers could concentrate on externally marketable, rather than firm specific skills and/or the “hoarding” of firm specific knowledge and skills to improve individual bargaining power. However, in Finland and Sweden, relatively strong security of tenure, and strong unions (the latter allowing for collective bargaining, rather than individual benefit maximizing behaviour) tempers arbitrary action by the employer. In areas such as union power, employees are in a stronger position than in more traditional CMEs (Goergen et al. 2009), contrary to the La Porta et al (1999) “diluted” common law thesis.

Mediterranean Capitalism

The countries of southern Europe – Portugal, Spain, Italy and Greece – occupy a somewhat ambiguous position in relation to CMEs and LMEs. La Porta et al. (1999) cast them – along with France – close to the civil law ideal, but this discounts weaknesses in practical enforcement of industrial relations legislation (Psychogios and Wood 2010), whilst Amable assigns them to a distinct category.

In practical terms, they have a history of high levels of state intervention and large agricultural sectors, but have more liberal traditions in terms of their industrial relations (Hall and Soskice 2001: 21; Holman 2001: 47-69) and are generally held to be more likely to bypass legislation and to have higher levels of corruption than northern Europe. Relatively under-developed capital goods sectors result in a more limited need for skilled workers (Holman 2001: 69).

In Portugal, vocational and educational training has been centralized, with social partners playing an important role in their management, and with measures in place to discourage the young from dropping out of the education and training system: This enables firms to assume a base of relevant vocational skills.

Spain is a country with clear regional differentiation, not just in language, culture and politics but also in the structure of industry and the levels of economic development. In Spain, a multi-faceted vocational training system is in place with mechanisms to ensure the system is responsive to regional needs and to ensure that dropout rates are checked (ILO 2007). Italy is also a state with different economies within it, reflected in the political parties. Whitley (1999) sees the more developed northern part of the country as a specific business system in its own right – though he rather ignores the poorer south. Whether Italy as a whole could be said to be part of the Mediterranean category remains unclear.

In Greece, vocational training has been rather more recent, and the system has a reputation for being sluggish and unresponsive to changes in technologies and market demand (Patiniotis and Stavroulakis: 1997). As is the case with Spain and Portugal, however, the limited nature of the capital goods sector reduces demand for vocational training (Holman 2001: 69); meanwhile, the development of generic managerial education has been uneven. More recent work on Greece has highlighted the extent to which it differs from more mature variations of Mediterranean capitalism, above all in terms of the size of unregulated informal working, and the decoupling of the underground economy from formal institutional mechanisms (Williams 2010; Psychogios and Wood 2010). Hence, it could be disputed whether Mediterranean countries form a distinct category or not.

Central Propositions

Table 1 summarizes the commonalities and differences in national training systems based on this review, and the characteristics of the different types of firm level training likely to be encountered in the different national archetypes identified based on the above critique of the literature on comparative capitalism and the review of the existing comparative literature on training and development. Based on it, we explore the veracity of the relevant predictions on variations in firm level training in subsequent sections. We further seek to test two hypotheses. The literature on comparative capitalism suggests that a wide range of firm level policies and practices will tend to be similar across specific individual varieties of capitalism: This assumes that one or a particular set of institutional features assumes a dominant role. In contrast, the training and

development literature suggests that firm-level training and development paradigms are in line with specific institutional configurations that do not necessarily coincide with existing country archetypes. What sets different types of CME apart include the degree of adoption of a flexicurity model, and the relative strength of national vocational systems.

Hypothesis 1:

Within CMEs, training and development policies and practices at firm level are likely to reflect the relative strength of national vocational systems and flexicurity.

As noted above, it can be argued that Mediterranean capitalism *does* not constitute a distinct model.

Hypothesis 2:

There is much diversity in firm level training and development policies within and between Mediterranean countries.

Data Sources and Descriptive Data Analysis

We use data from the comparative Cranet survey of HRM managers. This survey explores a detailed range of firm-level HRM practices, and variations in other organizational characteristics. It encompasses private and public organizations in 22 European countries, and a number of other countries (Brewster, Mayrhofer and Reichel, 2011). The survey is conducted every three to four years. Approximately 70% of the returned questionnaires were filled in

by the most senior personnel or human resource manager. The other observations involve less senior personnel practitioners, the CEO personally, or the company secretary (Brewster et al. 2007). Response rates have varied over the years and between countries, with overall response rates also, therefore, varying, from 17% in 1999/2000 to 21% in 2004; and individual country response rates ranging from 10% (Portugal, 1999/2000) to 37% (Sweden, 2004) (Brewster et al, 2004). In general, response rates were superior to those commonly encountered through full population surveys, as this survey is in all but the largest countries and those conducted by consultants (c.f. Infosurvey 2007), with very clear patterns emerging across a wide range of HRM practices, often close to theoretical predictions (Brewster et al. 2007). However, it is acknowledged that those firms responding are likely to be those that take HRM more seriously, leading towards a possible bias towards higher value added approaches within specific national settings. We found no evidence of a common paradigm across national contexts: Taking HRM seriously is clearly related to setting. Since the survey is translated into local languages³, the Cranet surveys employ mostly closed ended questions, which also facilitate quantitative analysis, and reduce the number of ambiguous responses. The survey aims to be representative of each economy at each point in time; therefore, the study does not constitute panel data, which would not be possible given the inevitable exits and entries of firms, particularly pronounced in specific national settings. Rather it is a trend study. A weakness of trend studies is that results between one survey and the next may reflect differences in those surveyed rather than changes over time (Bailey (1987: 214); however, this study found strong

³ Surveys are translated and back-translated to ensure comparability (Brislin, 1976; Brislin, Lonner and Thorndike, 1973)

continuities, highlighting the validity of this approach in this case (Mayrhofer et al 2011). The surveys cover all sectors of the target countries' economies, but exclude smaller firms (those with less than 100 employees). Each of the surveys has thrown up clear clusters of behavior on size, sectoral and national lines, often following on predictions in the most recent theoretical literature, providing some indication of the robustness of the data (Brewster et al. 2006; 2007). Firms were selected on one of two bases – in the vast majority of countries these were full population surveys. In a smaller number of the larger countries (e.g., the UK, Germany, France, and Italy) firms were selected randomly, but weighted for sector and size, from publicly available mailing lists, in order to ensure representivity.

For the purposes of this paper, we focus on private firms only from the 17 Western European countries in Cranet and on the surveys of 1991, 1995, 1999/2000 and 2003/4⁴. Table 2 provides information on the sample across the four surveys and the countries. The Cranet dataset is unique in the detailed firm level data on training it provides. In particular, the dataset provides information on four categories of employees: managerial, professional/ technical, clerical and manual employees, thus allowing us to go beyond company averages to explore where the training effort has been concentrated. Hence, this study is the first to use data which is detailed enough to assess whether there is variation in training practices across firms from a given country or whether these practices are formulated along the lines of broad institutional settings.

⁴ Not all countries are covered in each of the four surveys.

We started our analysis with a descriptive assessment of the training duration, the nature of training provided, the spend on training and the annual percentage staff turnover. This revealed distinct variations on national lines. There was little evidence to suggest that firms independently adopted training structures irrespective of the wider institutional context, including national training systems.

Training and development activities

We commenced with a detailed exploration of country effects of single dimensions of training⁵. This revealed that LMEs (certainly the United Kingdom; the evidence is less clear for Ireland) are characterized by a relatively short duration of training provided per employee, and a consistently high staff turnover. Further, the average number of training days in the UK also varies more across time than that in the CMEs of France, Germany and Spain – and Belgium and Italy to a lesser extent. In addition, some of the smaller CMEs, such as Denmark, the Netherlands, Sweden and Switzerland, also experience great volatility in the amount of training provided and/or high levels of staff turnover. Finally, the data analysis so far suggests that there is diversity across the broader category of CMEs and that there may be more than one type of CME.

Table 3 depicts levels of state expenditure on labor market training programs provided in a range of different countries. As can be seen, the relative spend is

⁵ A full set of descriptive statistics is available on request from the authors.

particularly modest in LMEs such as the United Kingdom, and highest in Denmark, followed by the Netherlands, both countries where the state's emphasis on labor market training is particularly high, underpinning their flexicurity systems. Again, there is evidence of diversity across the broader category of the CMEs, which fits with the alternative categories of CMEs presented in Table 1, confirming the first hypothesis.

Cluster Analysis

We undertook further interrogation of the data in relation to the predictions regarding differences between LMEs and CMEs and, at the same time, investigated the differences between different individual CMEs (Amable 2003) (see Table 1). First, a two-step cluster analysis⁶ is used to identify relatively homogenous groups of firms based on a range of specific characteristics. The underlying algorithm starts with each firm in a separate cluster and then combines clusters until only one is left. We choose the log-likelihood distance as a measure of similarity and Schwarz's Bayesian information criterion (BIC) for the determination of the number of clusters⁷. Second, the clusters obtained from this analysis will be compared with the two archetypes, LMEs and CMEs, and a closer examination of the latter category will be undertaken to explore the nature and origins of any diversity therein.

⁶ Based on the methodology developed by Chiu et al. (2001), the two-step cluster analysis is able to deal with large samples and to deal simultaneously with categorical and continuous variables. Conversely, the hierarchical cluster analysis has been designed to deal with a few hundred cases only and with variables which are all of the same type (e.g. all continuous variables). Another advantage of the two-step cluster analysis is that it is able to determine automatically the optimal number of clusters. See also Bacher et al. (2004) for a description of the method.

⁷ We use SPSS version 14 to obtain the clusters.

Why is a cluster analysis the most appropriate methodology for testing our hypotheses? A possible alternative to a cluster analysis would be to group the companies according to their nationalities and the categories proposed in Table 1 and then to run tests for each training variable to investigate whether there are statistically significant differences in means across the various categories. However, this approach suffers from two obvious shortcomings. First, it implicitly assumes that training practices are defined along national, institutional settings and does not allow for possible variation within countries. Second, this approach imposes one favored typology on the data. While the favored typology may partly explain patterns in the data, this does not preclude the fact that there may be alternative typologies that may work better with the data. At best, this type of approach will be able to test a large, albeit limited, number of alternative typologies that may however not be exhaustive. The cluster analysis does not suffer from either shortcoming. First, it explicitly tests whether training practices are clustered along national lines or whether there is substantial diversity within countries. Second, rather than imposing one favored typology on the data, the cluster analysis can be seen as an ‘open mind’ approach with no *a priori*. As its name suggests, this type of analysis looks for clear clusters in the data, which can then be compared to those that have been suggested by the previous literature. Hence, the cluster analysis looks for statistical similarities within the data rather than trying to mold the data so that it fits with the authors’ preferred view.

To start with, the characteristics that we use as the basis for the clusters are the country of origin (a categorical variable), the average numbers of training days

for managerial employees, professional/ technical employees, clerical employees and manual workers, the percentage of salaries and wages spent on training and the percentage of annual staff turnover. Table 4 reports the clusters that are obtained from these six characteristics. The analysis detects four distinct clusters. A first glance at the table shows that, for the case of each individual country, most of the companies (i.e. between 71% and 99%) are located within a single cluster.

The first cluster contains virtually all of the UK, Irish, Finnish and Swedish companies: It seems that CMEs with relatively weak vocational training systems exhibit LME-like behavior in this regard. Table 5 shows that this cluster is characterized by significantly below average numbers of training days for all four categories of employees, significantly below average expenditure on training, but slightly above average staff turnover.

Cluster 2 contains a mix of countries, those from Southern Europe (Greece, Portugal and Spain) and the smaller northern European economies (Denmark, the Netherlands, Norway, and Switzerland). These countries are fairly close to the cross-country averages in terms of days of training, the percentage of wages and salaries spent on training and staff turnover (see Table 5). Firms operating in Mediterranean capitalist countries exhibit similar behavior to those found in many CMEs, albeit for very different causal reasons, that will be outlined below. Significantly, three CMEs most commonly associated with flexicurity – the Netherlands, Denmark and Norway (Hansson 2007) – are found in this cluster,

reflecting the somewhat higher staff turnover rates than found in the traditional employment protection CME model, which is likely to serve to discourage firms from investing overly in on-the-job training in organization-specific skills.

Compared to all the other countries, firms from the three southern European countries (Greece, Portugal and Spain) are spread much more across different clusters. Indeed, a much smaller percentage of these companies (71-76%) are located within a single cluster and sizeable percentages are found within a separate cluster, cluster 4. We shall come back to this pattern later on. Cluster 3 contains the larger CMEs of Europe (France, Germany, and Italy) as well as Austria, Belgium and Iceland. These countries are traditionally associated with less flexible labor markets. This is reflected in cluster 3, which is characterized by turnover that is significantly below average, but also by very low spending on training and days of training. Given the presence of high levels of job protection and low turnover rates, training can be very cost effective, as the costs can be spread out over the many years of an employee's typical period of tenure and the benefits continue to be gained over a longer time period.

Categories and Firm Characteristics

We then performed an analysis of variance (ANOVA). This analysis attempts to identify significant differences in the means of the variables retained for the cluster analysis between the four clusters obtained from that cluster analysis. While the cluster analysis itself is based on a distance measure rather than on t-tests for differences in means, we believe that the ANOVA nevertheless tells us

something about the appropriateness of the variables used in the cluster analysis. We also perform an ANOVA on potential additional (or alternative) variables, i.e. the size of the organization, its industry, whether it has been involved in a merger or an acquisition and whether its headquarters are abroad. The aim of this additional ANOVA is to get a sense of whether there are additional variables that should have been included in the cluster analysis⁸.

We performed an ANOVA based on the four clusters obtained from the two-step cluster analysis. As a start, we calculated the differences in means between the six variables⁹ underlying the cluster analysis (see the table below). Given the four clusters, there are six different pairs for the tests on the differences in means¹⁰. As a minimum, we found that there are significant differences in means (at the 5% level of significance) for four of the six different pairs (days of training for manual employees, and percentage of salaries and wages spent on training). For the other four variables, the number of pairs with significant differences in means is at least five. Hence, for all the variables underlying the cluster analysis there are significant differences in means (at the 5% level of significance) for a majority of pairs.

We also performed the equivalent ANOVA, based on the same four clusters, for the following firm characteristics which were not included in the cluster analysis: The total size of the organization (measured by the number of employees), 16 industry dummies based on the classification, a dummy variable set to one if the

⁸ A full set of ANOVA tables is available on request from the authors.

⁹ The variables are days of training for managerial employees, days of training for professional/technical employees, day of training for clerical employees, days of training for manual employees, percentage of salaries and wages spent on training and percentage staff turnover per year.

¹⁰ These are 1 with 2, 1 with 3, 1 with 4, 2 with 3, 2 with 4, and 3 with 4.

organization's headquarters are abroad (HQABROAD), a dummy if the organization was involved in an acquisition and another dummy if the organization was involved in a merger. This amounts to 20 different variables. We found significant differences in means for only one of the 20 variables for at least four of the six different pairings based on the four clusters (IND4). For all other 19 variables, the number of pairings with significant differences in means was between zero and three. Hence, there were significant differences in means for a minority of pairs only for 19 of the 20 variables in contrast to the above ANOVA where for all six variables there was a majority of pairs with significant differences in means.

Put differently, there were no significant differences in means for the case of firm size between clusters. Further, there was evidence of only one industry sector out of a total of 16 industry sectors having reasonable explanatory power (defined as being able to assign organizations to a majority of the six clusters). Similar comments apply to the location of the organization's headquarters and whether the organization has been involved in an acquisition or merger. This suggests that national characteristics rather than firm or industry level characteristics are the main drivers behind differences in training.

Discussion

The pattern uncovered above begs the question why between 24% and 29% of Greek, Portuguese and Spanish firms end up within a cluster of their own, that

is, cluster 4¹¹. This is an important question as Table 4 shows. Cluster 4 has characteristics that are substantially different from those of the other clusters¹². In particular, cluster 4 has training levels, expenditure on training and staff turnover that are between two and three times higher than the sample average. A visual inspection of the 275 firms in cluster 4 reveals that 207 of them are from four industries: Agriculture, Hunting, Forestry, & Fishing; Metal manufacture; Other manufacturing; and Other services. There is also a higher percentage of firms in cluster 4 involved in a merger or acquisition (59% compared to 44% for the whole sample) and with their headquarters abroad (61% compared to 49%). Finally, these firms are on average half as large (545 employees) as the average sample firm (1,223 employees). Hence, the firms in cluster 4 are mainly the subsidiaries of foreign firms and/or those that have been recently taken over. These firms are likely to have a significantly higher turnover, training expenditure and training duration, reflecting greater organizational resources, the (periodic) need to move key staff between locations, and the effects of the country of origin on country of domicile HRM behavior¹³.

There is considerable evidence to suggest that specific sets of institutions may be associated with more than one set of alternative complementarities (Brewster et al. 2006; Streeck and Thelen 2005), whilst differences between countries in terms of specific aspects of training and development may be offset by many similarities in other areas (Klarsfeld and Mabey 2004: 656). The fact that some CMEs have LME-like training systems does not mean that they are like LMEs in

¹¹ Joined by a small number of Swedish firms.

¹² A full set of statistics are available on request from the authors.

¹³ A detailed cross-national analysis of the behavior of MNCs in different national locales may be found in Brewster et al. (2007).

other respects, such as regarding the presence of national level neo-corporatist frameworks. In other words, whilst the country typologies may be valuable in understanding the nature of institutions and practices associated with training and development, we cannot conclude that they will be similarly useful in understanding the relationship between, say, different forms of workplace based voice mechanisms, and the broader role of national labor movements. In short, different sets of complementarities may make for similar outcomes, without necessarily suggesting the superiority of any system (Hall and Soskice 2001). Nor for that matter, does it suggest that certain CMEs are evolving towards the LME model: Systemic changes may encompass not only the substitution of one set of practices with another, but also development, co-evolution and new departures (Boyer 2006). Finally, we found that foreign owned firms exhibited rather different patterns of behavior than their domestic counterparts, under specific sets of circumstances, reflecting the mixed effects of parent and host country pressures, echoing the findings of Tregaskis et al. 2001 and Brewster et al. 2007.

We found no evidence of simple diffuse diversity, or that certain CMEs are or are becoming wholly LME-like in behavior: Rather we found evidence that specific national realities are associated with specific firm level practices, underscoring the existence of clear alternative clusters of institutions and practices, confirming the presence of underlying complementarities (Hall and Soskice 2001). This would indicate that national training systems seem, in most cases, to be fairly persistent; the process of change is a complex and multi-faceted one, and may involve the infusion of aspects of other systems, co-

evolution or substitution, rather than a simple convergence or diffusion process (Hollingsworth 2006).

Conclusions

A limitation with much of the existing VOC literature is that it is largely founded either on broad economy wide data or case studies; there is rather less recourse to comparative national and transnational survey evidence. This paper seeks to redress this lacuna via the use of a major transnational survey dataset, systematically exploring relations between different sets of training and association practices at firm level, and the relationship to national training institutions, and broader socio-economic realities.

Our findings highlight some of the limitations of the most common analytical categories highlighted in the VOC literature: Our evidence points to the validity of an alternative set of country clusters derived from a review of the more empirically orientated literature on employment security, training and development. These country categories shed further light on the complex nature of complementarities linking in-firm practices and national institutional realities. Firm level spends on training and development and staff turnover rates correspond closely to the characteristics of these categories broadly correspond with our predictions in table 1. However, two further issues emerged. Firstly, there is considerably more diversity within and between Mediterranean economies than initially predicted. Recent work has highlight the divergence between formal rules and actual practices in the more peripheral countries in this category (Psychogios and Wood 2010), underscoring the extent of partial

institutional decoupling that may be encountered in such contexts. Secondly, there is much diversity within the Nordic bloc. CMEs with weak vocational training systems, whilst in many other respects close to the rest of the CME cluster (e.g. traditions of neo-corporatism, social protection, etc.), are more LME-like in terms of patterns in firm level training and development. In other words, some Nordic economies appear to be – when it comes to training and development – at best “diluted” CMEs (as implied by La Porta et al 1999). However, for others, this is clearly not the case. In simple terms, both our hypotheses are confirmed. Firstly, we have confirmed that Mediterranean capitalism is an extremely diverse cluster of countries, and cannot be seen to constitute a coherent capitalist archetype in the same manner as others. A fertile ground for future research would be a more in-depth dissection of this common analytical category, taking account of regional and sectoral diversity, and the nature of the informal economy.

Secondly, what sets different types of CME apart, when it comes to training and development, reflects different sets of institutional features to those commonly identified within the literature on comparative capitalism. This highlights the limitations in categorizing countries according to a limited range of institutional features, and the need to develop specific categorizations according to for which specific set of practices explanations are sought.

Finally, national training systems remain persistently distinct: There is no evidence that any changes represent the complete substitution of one system for

another, but rather through a process of infusion, experimentation, innovation, they retain distinctive features whilst adapting to changing external circumstances (Hollingsworth 2006). This study is primarily about differences between CMES; we only look at two LMEs. However, a closer study of firm practices across a wider cross-section of LMEs may reveal a similar degree of diversity within this category. This would represent a fertile avenue for future research. On the one hand, the identification of further distinct varieties of capitalism represents very much an open ended theoretical project that holds the distinct danger of sacrificing analytical distinctions based on core defining features in favor of understanding detailed nuances in practices (see Wood and Frynas 2006). On the other hand, training and development policies and practices, and associated staff turnover rates, represent one of the central functions of HRM and, hence, of a firm's relationship with its employees (Tharenou 2009). As Crouch has argued, every national system of employment relations is distinctive in that the historical evolution of regulation has been shaped by national state traditions (Crouch 1993). The key is in getting the right level of abstraction, so that the analytical categories, if they have value, are retained, but that they also have some practical validity once we introduce into the picture the kind of evidence that we have been able to produce here.

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Table 1: Commonalities and Differences in National Training Systems

National Archetypes	LME	High Job Security CME	Flexicurity CME	Weak Vocational CME	Mediterranean Capitalism
Examples	United Kingdom, Ireland	Germany, Austria, Belgium, France*	Netherlands, Denmark, Norway	Sweden, Finland	Spain, Portugal, Greece, Italy**
Tradition of Corporatism/ Neo-Corporatism/ Tripartism	No	Yes	Yes	Yes	Yes
National vocational training system	Weak	Strong	Intermediate	Weak	Yes, however, poor matching with employer demand
Legal Job protection	Weak	Strong	Intermediate to limited	High	Mixed
Staff turnover rates	High	Low	Intermediate. Weaker job protection likely to be counter-balanced by a tradition of stronger implicit contracts	Higher than average, particularly pronounced in lower job bands, given greater pressure on firms to poach skilled employees	Intermediate. Weak capital good sector discourages inter-firm mobility particularly among employees in lower job bands
Average duration of training	Low among lower job bands, owing to weak employer employee inter-	Low among lower and inter-mediate job bands. Training can be spread over many years, owing	Intermediate. The state provides incentives to employees to update their skills, to improve their	Lower than average. Particularly pronounced among lower job bands, as firms may rely on poaching	Intermediate. Weakness in national training system create skills gaps. On the other hand, weak capital

	dependence, and an over-reliance on external labour markets. Good generic higher education systems provide good skills base for managerial employees	to lower staff turnover rates. Managerial employees likely to possess weaker generic skills, but stronger industry specific ones	general marketability. However, this may be counter-balanced by a corporatist framework that promotes inter-dependence	skilled workers from elsewhere	goods sectors mean limited demand for workers with vocational qualifications.
Average spend on training	Low. However, high turnover may make overall spend on induction training quite high	Low, echoing the above trends.	Intermediate, as per the above. The state will be more active in directly sponsoring training.	Lower than average	Intermediate, as per the above. A reliance on informal on the job training may reduce training costs in the lower job bands.

* France does not closely respond to either the LME or CME ideal types; however, levels of employment protection are closer to the CME than LME ideal type (see Hall and Soskice 2001; Harcourt and Wood 2007).

** Italy is another example of a mixed system: the bulk of the country closely follows the Mediterranean archetype, although the highly developed northern region in many respects constitutes an institutional environment of its own (Whitley 1999).

(Sources: Harcourt and Wood 2007; Amable 2003; Hall and Soskice 2001; Whitley 1999).

Table 2: Sample Size per Country and Survey Year

	1991	1995	1999/ 2000	2003/4
Austria			230	270
Belgium		314	282	191
Denmark	478	443	520	516
Finland		276	290	293
France	990	403	400	
Germany	967	548	743	320
Greece			136	180
Iceland				228
Ireland		139	446	
Italy	188	59	79	
Norway	303	358	391	303
Portugal			169	
Spain	297	250	294	
Sweden	295	344	352	383
Switzerland	230	187	168	
The Netherlands	223	217	234	397
United Kingdom	1508	1178	1091	1115
Total	5479	4716	5825	4196

Table 3: Comparative Levels of Labor Market Training

Country	Public Expenditure as % of GDP	Participant Inflows as % of Labour Force
Austria 2001-2002		
<i>Training for unemployed adults/those at risk</i>	0.65	0.19
<i>Training for Employed Adults</i>	0.21	0.02
Denmark 2000		
<i>Training for unemployed adults/those at risk</i>	0.86	5.76
<i>Training for Employed Adults</i>	0.67	10.15
Finland 2002		
<i>Training for unemployed adults/those at risk</i>	0.27	2.51
<i>Training for Employed Adults</i>	0.03	0.44
France 2002		(2001)
<i>Training for unemployed adults/those at risk</i>	0.21	1.73
<i>Training for Employed Adults</i>	0.02	0.54
Germany 2002		
<i>Training for unemployed adults/those at risk</i>	0.32	1.24
<i>Training for Employed Adults</i>	–	–
Ireland 2001		
<i>Training for unemployed adults/those at risk</i>	0.15	1.43
<i>Training for Employed Adults</i>	0.01	–
Netherlands 2002		
<i>Training for unemployed adults/those at risk</i>	0.6	1.44
<i>Training for Employed Adults</i>	0.52	2.53
Norway		
<i>Training for unemployed adults/those at risk</i>	0.05	0.99
<i>Training for Employed Adults</i>	–	–
Sweden 2002		
<i>Training for unemployed adults/those at risk</i>	0.28	0.24
<i>Training for Employed Adults</i>	0.01	0.10
United Kingdom 2002-2003		
<i>Training for unemployed adults/those at risk</i>	0.01	0.26
<i>Training for Employed Adults</i>	0.01	–

(OECD 2004)

Table 4: Cluster Analysis Based on Average Days of Training, Percentage of Staff Turnover and Proportion of Wages Spent on Training

	Cluster									
	1		2		3		4		Combined	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
United Kingdom	624	92.4%	0	.0%	0	.0%	51	7.6%	675	100.0%
France	0	.0%	0	.0%	182	93.8%	12	6.2%	194	100.0%
Germany	0	.0%	0	.0%	286	94.4%	17	5.6%	303	100.0%
Sweden	177	87.6%	0	.0%	0	.0%	25	12.4%	202	100.0%
Spain	0	.0%	101	71.1%	0	.0%	41	28.9%	142	100.0%
Denmark	0	.0%	219	95.6%	0	.0%	10	4.4%	229	100.0%
The Netherlands	0	.0%	243	97.6%	0	.0%	6	2.4%	249	100.0%
Italy	0	.0%	0	.0%	21	91.3%	2	8.7%	23	100.0%
Norway	0	.0%	183	90.6%	0	.0%	19	9.4%	202	100.0%
Switzerland	0	.0%	78	98.7%	0	.0%	1	1.3%	79	100.0%
Ireland	144	95.4%	0	.0%	0	.0%	7	4.6%	151	100.0%
Portugal	0	.0%	37	75.5%	0	.0%	12	24.5%	49	100.0%
Finland	250	92.9%	0	.0%	0	.0%	19	7.1%	269	100.0%
Greece	0	.0%	29	70.7%	0	.0%	12	29.3%	41	100.0%
Austria	0	.0%	0	.0%	95	92.2%	8	7.8%	103	100.0%
Belgium	0	.0%	0	.0%	219	89.8%	25	10.2%	244	100.0%
Iceland	0	.0%	0	.0%	32	80.0%	8	20.0%	40	100.0%
Total	1,195		890		835		275		3,195	

Table 5: Centroids Based on Average Days of Training, Percentage of Staff Turnover and Proportion of Wages Spent on Training

	Cluster									
	1		2		3		4		Combined	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
DAYS TRAINING FOR MANAGERIAL EMPLOYEES	5.1135	3.10698	5.5284	3.15659	5.0757	3.02841	13.1818	8.01002	5.9136	4.3924
DAYS TRAINING FOR PROF/TECH EMPLOYEES	5.1186	3.02035	5.8565	3.54011	4.6174	2.81944	14.0956	9.47092	5.9658	4.8069
DAYS TRAINING FOR CLERICAL EMPLOYEES	3.3101	2.11811	3.3808	2.18801	3.0105	1.87429	10.0175	7.70013	3.8288	3.5556
DAYS TRAINING FOR MANUAL EMPLOYEES	3.2972	2.53167	3.6118	2.87821	2.6911	2.12129	10.0065	9.21199	3.8039	4.1108
% SALARIES AND WAGES SPENT ON TRAINING	2.0419	1.75118	2.2188	1.86847	1.8975	1.43741	5.2981	8.60016	2.3337	3.1375
% STAFF TURNOVER PER YEAR	7.5291	8.00234	7.4110	6.72190	4.8828	4.97163	15.5650	24.79939	7.4963	10.1548

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